Unusual Lichens in the Morrell Nature Sanctuary: Netted Specklebelly lichen (*Lobaria anomala*)

Netted Specklebelly lichen, *Lobaria anomala* (Photo by Bob Harvey)

Lobaria anomala, commonly known as Netted Specklebelly lichen, is indeed an unusual and interesting species. This lichen has a distinctive appearance with a net-like structure and often grows on trees, particularly on the branches of hardwoods like the Bigleaf Maple (*Acer macrophyllum*).

Description

The thallus, or lichen body, often has a somewhat wrinkled or lobed appearance, with a green to yellow-green color, especially when wet. The surface may look like a net or mesh pattern, giving it its "netted" appearance. In terms of texture, the lichen's surface is rough and bumpy, often with a leathery feel. It can have a slightly shiny appearance when wet. Tiny, dark, pimple-like structures may be observed on the surface. These are apothecia, the reproductive organs of the lichen.

Habitat and distribution

Lobaria anomala occurs in western North America, along the Pacific coast of the United States and Canada. It grows on both deciduous and coniferous trees on humid locales, particularly in the Interior Cedar Hemlock zone and in low-elevation coastal forests. Its range extends north from Alaska, through British Columbia, south to California. This lichen thrives on Bigleaf Maple but can also grow on other hardwoods or conifers in moist forest environments. It often indicates an environment with clean air and plenty of moisture. Lobaria species, in general, are known to be sensitive to air pollution, and the presence of *Lobaria anomala* can be a good indicator of environmental health, particularly in areas that are less disturbed.

Ecology

Netted Specklebelly lichen is commonly found on the trunks and branches of trees in humid, temperate environments, especially in areas with rich air quality and moisture. It is a type of foliose lichen, meaning it has a leaf-like structure. Lichenicolous (lichen-dwelling) fungi have been documented growing on *Lobaria anomala*. These include *Plectocarpon lichenum* and an unidentified species of *Dactylospora*. When *P. lichenum* infests *L. anomala*, it causes the formation of blackish apothecia that lack a thalline margin.

A photobiont is the photosynthetic partner in a symbiotic relationship, most famously in lichens. This partner is either a green alga or a cyanobacterium that produces food through photosynthesis, while the other partner (the mycobiont) is a fungus that provides structure and protection. The term "photobiont" is used because this organism's primary role is to perform photosynthesis. In *Lobaria anomala*, the photobionts are green algae and cyanobacteria (a nitrogen fixer).