

Lichens

What Are Lichens?

Have you ever seen a lichen and knew that it was a lichen? Not many people know what lichens are, and who would? They seem as though they are from another planet! Lichens are bizarre organisms and no two are alike. Lichens are an example of symbiosis, when two organisms come together to create a whole greater than the sum of the parts. The first organism is a fungus and its contribution to the partnership is forming a structure. The second organism is an alga or cyanobacterium. Algae are simple plants without stems. Cyanobacteria, sometimes called blue-green algae, can produce food from sunlight. Some lichens contain both algae and cyanobacteria. The fungus is the building, and the alga is the garden.

Benefits of Lichens

First of all they make interesting pollution indicators, as they won't grow in polluted air. If lichens start to grow on your trees, that's good news a sign that the air is pure! Also lichens have the capacity to absorb nitrogen directly from the air. When it rains some of this nitrogen trickles down to the roots of the host tree, helping it grow better. Lichen provides food for rabbits and deer. Rabbits eat lichen pieces that have fallen to the ground. Deer can be seen grazing on the lichen on the lower areas of pine trees generally in winter.

Shapes of Lichen

There are three main types of lichen shapes. The first type, Crustose looks like jewels embedded in rock. Crustose lichens spread across rocks or other surfaces in a rough bubbly pattern. They become one with the surface and cannot be removed without being broken. The second type, Foliose looks like an odd flower garden. These lichens look like colored and crinkled leaves. The third type, Fruticose looks like the beard of a troll. These lichens hang down off the trees or even sometimes stand upright like shrubs.

Colors of Lichens

Lichens can be Red, Green, Orange, grayish Blue, golden Yellow, Brown, or even Black. Lichens get their color from two sources, the color of the algae or cyanobacteria that live within them and the color of acids that the lichens produce. Green algae give the lichen a green or yellow green color. Cyanobacteria give the lichen a blueish gray color. The acid produced by lichens adds even more color. Color may even be related to habitat.

Did you know?

Wolf Lichen is the most common lichen in Suncadia identified by its bright yellow-green color hanging from most Ponderosa pine.

Lichens

❖ Usually grouped into three major growth forms:

- **Crustose** - Attached to or embedded in substrate over entire lower surface
- **Foliose** - Contain leaf-like thalli which often overlap
- **Fruticose** - Resemble miniature upright shrubs, or hang down in festoons from branches.

