



## LIGHTS AND SHADOWS FROM THE DISHMAN HILLS

November 1983

### LITTLE PLANTS THRIVE IN HILLS AMID AUTUMN'S COOL SHOWERS

The cool, moist weather of late autumn gives the go-ahead for mosses, fungi and lichens. These little plants, supposedly low on the evolutionary scale, are also low in stature. Lacking tubes for carrying water upward, they are limited in size, since they must depend upon the slow process of diffusion from cell to cell to supply their aerial parts with moisture. Their lack of true roots also handicaps them as they depend upon shallow systems of tubeless strands for carrying water.

The fungi, lacking chlorophyll, must obtain their food either as parasites or, more commonly, as saprophytes, scavenging on decaying plants and animals. A colorful variety of fungi is evident now, some on soil, others on dead trees, logs or stumps. Some of them may serve as food for squirrels, deer and the larvae of tiny flies. Just because they may be safely eaten by these animals is no reason to believe that we can use them for food. Never eat fungi (mushrooms) unless you are positive that they are of the edible kind.

Lichens, for all their different looks, are really fungi with microscopic algae living within their tissues. The algae with their chlorophyll make food, some of which is used by the fungus. The algae in turn get a place to live. They also are said to take nitrogen from the air and make nitrogen compounds which in time fertilize the soil. Lichens ("reindeer moss") are a highly important food for caribou in the Far North and tree-living species are a staple in the diet of the endangered woodland caribou which enter Washington in northern Pend Oreille County (the Salmo-Priest area.)

Lichens are divided by botanists into crustose types, clinging to rocks and sometimes trees; foliose (leaflike) on trees, rocks and soil; and fruticose, which are stemlike and branching, standing erect on soil or drooping from trees. The fruticose ones are often mistakenly called mosses, particularly those that hang hairlike from trees (goatbeard lichens). Very few lichens have common names, apparently because few people give them more than a casual look. Here is a chance for anyone with a little imagination to come up with some names for them.

One of the most common and conspicuous lichens on branches and trunks of ponderosa pines is Evernia (scientific name for the genus), a bright yellow-chartreuse and much branched. Under slightly more moist conditions are the Hypogymnias, sprawling flatwise on conifer branches; they are grayish above and black below and are the only lichens we have that are hollow. Some kinds of lichens have cuplike structures (apothecia) which produce spores. It is likely, however, that lichens usually reproduce by fragments carried by the wind. Very young trees rarely support lichens, apparently because their bark is too smooth for the fragments to find lodging. City areas usually are poor in lichens, since the little plants are sensitive to air pollution.

Another yellowish lichen (Letharia) has on its short branches apothecia cups rimmed with a fringe of tiny fingers. A conspicuous foliose lichen is Platismatia, grayish-green above and black below, growing on conifers and sometimes other woody plants. The goatbeard lichens (Alectoria), their thin strands hanging in long bunches from conifers, prefer somewhat more moist forests. Growing on the ground or moss-covered rocks with a little soil are the little green cups of Cladonia, looking like miniature golf tees. Other species lack well-defined cups and are branched.

(Cont. in column 2)

### LAND PURCHASE PROPOSALS ON THE WAY

We are drawing up purchase proposals to be offered to the owners of land in the Dishman Hills. We see no way to buy as much as 140 acres and pay cash for it. To contract for the entire amount and pay interest on the balance would be entirely out of the question financially for us. We're giving it our best try. Meanwhile, we greatly appreciate your donations. They will enable us eventually to enlarge Dishman Hills Natural Area.

When we first met seventeen years ago to start the Dishman Hills project we passed the hat for money for postage. Early in the game some people thought what we were trying to do was impossible. Now there are 300 acres in the Natural Area so we are making progress and expect with your help to keep on making more!

### CHILDREN HELPING FEED WINTER BIRDS

Children will be making bird feeders at Camp Caro Saturday, Nov. 19 at 9 a.m. After sack lunches they will hike in Dishman Hills. If your children (and you) wish to take part, please call Audubon Society (466-6626) at once, so they will know how much material to provide.

### LITTLE PLANTS (continued)

Many other kinds of lichens thrive in our area. Their colors range from yellow and orange through gray, olive green, brown and black. One kind grows under water and has been found in the creek that supplies Liberty Lake. Some lichens have pigments that can be used as dyes. Litmus, used in the chemistry lab as an acid-base indicator, comes from a lichen.

If you want a whole new experience in the out-of-doors, try lichens. They're brand new ball game.

Sorry about the lateness of the October bulletin. Technical difficulties with the printing and labeling delayed it. Better luck this time, we hope.

We are a non-profit organization dedicated to saving some of the natural environment of the Spokane area for people to enjoy and learn from. Our monthly meetings are at Kiwanis Camp Caro, S. 625 Sargent Road at 7:30 p.m. the fourth Wednesday. You are cordially invited to attend. For further information and for slide programs and guide service into the Dishman Hills call us at 926-7949.

Please use this form when sending contributions to save the Dishman Hills and the Tower Mountain corridor. Your dues and/or gifts are income tax deductible.

\$ \_\_\_ Annual dues (\$5) New? \_\_\_ Renewal? \_\_\_

\$ \_\_\_ Land purchase fund

\$ \_\_\_ In remembrance of \_\_\_\_\_

\$ \_\_\_ Bulletin expense fund (\$1 or more)

\_\_\_\_ Your account number above your address.

Please make checks payable to Dishman Hills Natural Area Association and mail to David E. Lentos, Treasurer, E. 10922 23rd Spokane, WA. 99206. Many Thanks! To reduce expense, no receipt or acknowledgement will be sent unless requested.