



DISHMAN HILLS NATURAL AREA ASSOCIATION
3415 S. LINCOLN DRIVE, SPOKANE, WA 99203, 509 747-8147

Non-Profit Org.
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Permit No. 546

Buttercup hike,
April 21, 1pm,
Camp Caro

LIGHTS AND SHADOWS from the Dishman Hills, April, 2001

BIG NEWS

The Dishman Hills Assoc. has just received from the Foundation Northwest's Anonymous Pass-through Fund, a grant amounting to about \$40,000, enough to pay off the remaining debt for our Tower Mountain land parcel! The awesome generosity of the Foundation and of those in the community that contributed to this project has made a dream come true; Tom Rogers we did it! In next month's newsletter there will be a discussion what's next for the Association and some new opportunities to reach the goals of saving our Natural Heritage.

THE VERNAL POOL

The Dishman Hill's special topography contains a number of depressions that hold water during parts of the year, and these are known as vernal pools. These pools are shallow, intermittently flooded wet meadows that are usually dry for part of the summer and fall. While vernal pools have been described throughout the country and beyond, under the classic definition they are limited to areas with Mediterranean climates (wet winters and dry summers). Although some consider these pools unique to California, the Columbia basin also supports these seasonally flooded wetlands. Regardless of their location, these ephemeral ponds harbor an amazing diversity of life forms, and groups across the country are working to raise awareness about the pools and protect them

Common to most vernal pools is the lack of permanent inlets or outlets, with water supplied by spring rains and melting snow, and having a relatively impermeable substrate. In the Columbia basin, most vernal pools are small depressions that generally have thin soils that are underlain by bedrock or impervious subsoil such as clay. Water loss is primarily through evaporation and transpiration. Short-lived wetland annuals dominate the plant community early in the growing season, but later upland annuals and biennials are dominant.

The inhabitants of vernal pools must survive the dry seasons of the year. Aquatic creatures have to either be able to disperse or go into a dormant state. Amphibians may use the ponds to reproduce, safe from predation from fish, which have no adaptation to the dry periods of vernal pools. Invertebrates such as fairy shrimp lay eggs that are resistant to both drought and freezing and may remain viable for many years. Plants may wait out the dry period as seeds, spores or corms.

Vernal pools support unique flora and fauna, organisms that cannot live anywhere else. For example, in California's Central Valley, vernal pools shelter more than 60 known endemic species of plants and invertebrates. This biodiversity is but a remnant, considering that California has less than 7 percent of its original pools remaining, the remainder lost to development and agriculture. Biologists are divided as to the cause of this species diversity. Some

differences may be due to physical and chemical attributes of the pools, or due to historical patterns not now discernible. The genetic differences seen between pools indicate the dominant processes are individuals and populations being isolated from each other rather than individuals moving around. With this genetic diversity between ponds, preservation of species requires protection of more than one or a few pools. Groups across the country, from California to Virginia and Massachusetts, are working with students to adopt and protect local vernal pools. Since most pools are on private land, many believe grass-roots education is the most effective means for preservation.

The East and West ponds in the Dishman Hills, do not really fit the definition for vernal pools since they are deeper, support perennial wetland species, and hold water most years through much of the summer. This year, they will likely dry out earlier in the growing season, as they are now several feet lower than have been observed in wetter years.

ORGANIZATION NEWS

We are a non-profit organization dedicated to saving nature areas in the Spokane region for public enjoyment and education. Call Michael Hamilton, 747-8147, if you have any questions. We have a monthly meeting the third Tuesday of the month at Opportunity Elementary School, in the teacher's lounge, S. 1109 Wilbur, 7pm.

The following are our March donors that have consented to be listed: Brad Blegen, Nancy Cashon, Elizabeth DeNiro, Foundation Northwest, Corinne Gillingham, Frank Gropp, Kenneth Gudgel, Wesley Hanson, Adeline Haynes, Steven Heaps, Mark Huggar, Donald Kram, Cynthia Langlois, Mary Lentz, Helen Lininger, Jacqueline Mallereau, Steven Martin, Sherry McCauley, Francis & June Potter, James Qualls, Jane Rogers, Lois Smith, Thomas White, Barney Wilson, and seven anonymous donors.

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