

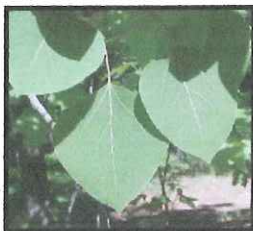
LIGHTS and SHADOWS

from the
Dishman Hills

April 2007

ONE AMAZING TREE

There is a member of our native plant community that is worthy of our closer attention. It's kind may be the largest and longest living organism on earth. It is versatile enough to be the most widespread tree in North America, and has an honored place in the western scene. The quaking aspen, *Populus tremuloides*, is a member of the willow family and grows in the Natural Area around the ponds and in areas of open sunlight. This deciduous tree has a smooth, white trunk and rounded, flat leaves that are carried on strongly flattened stems that allow them to tremble or quake in the slightest of breezes. This adaptation allows the tree to better withstand high winds by reducing air drag. In the fall the leaves turn a brilliant yellow in contrast to the surrounding deep green of the conifer forest. Mature aspens run about 40 to 60 feet tall, occur in pure stands or groves, and are considered hardwood trees. Quaking aspen is a valuable wood source, an important wildlife habitat, and an "aesthetic resource" for many communities in the West.



This tree has been around awhile. It was one of the earliest species, along with spruce, to follow the retreating ice north at the end of the last Ice Age. While aspen is a pioneer plant, rapidly filling in open space after logging or fires, it is often replaced by conifers in a mature forest where the taller trees rob the sunlight. But the tree is also part of the western climax forest. This is a tree of paradoxes and a lot with this tree mysteries have to do with the way it reproduces. Aspens do have sex; there are male and female trees that flower, pollinate, and produce small cones with numerous, very tiny seeds that are dispersed by the wind. In the drier, cooler West reproduction is almost entirely vegetative, with suckers sprouting from existing root systems. On one hand they are one of the shortest-living trees in the western forest, but on the other, since they are a continuous clone or colony from a surviving root system, they can be an incredibly long-lived organism. The giant clone Pando (Latin for "I spread") in south-central Utah has been dated at over 10,000 years old, has more than 47,000 individual trees, and an estimated weight of over 13 million lbs. This makes it not only the longest-lived species but the largest individual! A stand of aspen typically consist of a mosaic of clones with very diverse genetics. This is thought to be a result of the long distances that the tiny, cottony seed can be transported by the wind.

Aspen groves allow more sunlight to reach the forest floor than their conifer neighbors resulting better growth of forage. Aspen leaves are a feast for butterfly larvae. Wildlife, especially deer and beaver, find the leaves, twigs, and bark very tasty. The bark's white outer layer is actually the living phloem layer and, thus, makes a good browse. One side effect of this is that the aspen displays wounds very clearly. Trunks can bear scars from bear claws to human graffiti. Aspen like fire. One would think that the lack of cork-like bark would leave the tree susceptible to wildfire, but the aspen themselves don't burn easily earning a nickname with firefighters of the "asbestos tree". If the tree is destroyed by fire, the surviving roots rapidly send out new sprouts. The tree's very low flammability makes it useful for making matches.

It's humbling to think that all animals, including human beings, are parasites of the plant world. — Isaac Asimov

Aspen have a strong cultural connection. The aspen tree's quivering leaves are, in Christian lore, said to be the results of arrogance at the Crucifixion because the trees did not tremble like the other trees, and the cross itself is sometimes said to have been aspen wood. Another old saying was that aspen leaves are made from female tongues, and their quivering is due to women's inability to stop talking. But for visitors to the Natural Area the best way to enjoy our aspen is to take the time to listen to the beautiful clatter of the flapping leaves in the breeze, watch the trees seemingly constant motion as it yields to the wind, and realize that this plant might have been here before human arrival and may be here long after our departure.

FIELD COURSE

Next month there will be a field course offered in the Dishman Hills through Community Colleges of Spokane, Institute for Extended Learning (IEL). The course is called "Head for the Hills" and is a walking tour covering the geologic stories that form the Hills as we know them today. There is much more there than you would think. The Natural Area has both some of the oldest and the youngest geologic formations in the State. The May 26 date is full as of publication date of the newsletter, but there will be another tour on June 2 if enough people sign up. One has to register for the course and pay a registration fee of \$28. If you are interested call IEL at 279-6000, and ask to register for course number L293

ASSOCIATION 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 questions. We meet every other month on the third Tuesday of the month at 7pm, at Opportunity Elementary School, S. 1109 Wilbur. Our next meeting will be May 15.

The following are our March donors that have consented to be listed: Frank Bender, Carolyn Boatsman, Brian Chevez, Andrea Gunning, Eris Heggem, Tim Henderson, LeRoy Hook, Maxine Leszczykowski, Sunni Mace, Linda Martin, Sherry & Jason McCauley, Barbara Morkill, Betty Stratton, Richard Taylor, Jeanne Wilson, Hershel Zellman, and two anonymous donors. This is an incomplete list for march and anyone missed will be included in the next news letter. Thanks.

Please use this form when sending **CONTRIBUTIONS** or **DUES**
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