

LIGHTS and SHADOWS

from the
Dishman Hills

January 2004

SLEEPY TIME

It's the depth of winter and the forest is a sleepy place waiting for the dawn of Spring and the alarm clock of warmer weather and longer days. So, when visiting the forest this time of year tread softly so as not to disturb the slumbering population. For the most part, everything living in the forest on a hot, humid August afternoon is still there on a frosty January morning. Some of the forest denizens are vacationing in the south, but those are limited to the ones with wings. Two choices are left to the remaining inhabitants, adapt or sleep (hibernate), and many choose the later. True winter sleep or hibernation involves a drop in body temperature, the slowing of metabolic rate, and the ceasing of certain body functions. Sleeping animals are split between the light sleepers and the deep sleepers.

The deep sleepers are small mammals, reptiles, insects, and amphibians that "tuck in" when the winter starts. Cold-blooded animals usually start and finish their winter sleep based on the length of daylight since their body activity depends heavily on external temperatures and they wouldn't want to be caught by a early or late frost. Warm-blooded animals usually "hit the sack" when the weather turns cold. They hide in protected spots such as burrows, crevices, and hollow trees. Most like to be underground and under the snow where temperatures are a bit higher. Their body functions slow way down or stop all together, and they can't awaken until Spring. Some squirrels' body temperatures can hover several degrees above freezing when sleeping. Others animals can stop their breathing. Studies have shown that some animals can become sleep deprived during hibernation and have to wake up at times to take a nap. These guys to survive have to find a secure bedroom where they won't receive an unsuspected wake-up call from a predator. Many of the pond inhabitants burrow into the wet mud on the bottom or sink to unfrozen water to winter out. Frogs and salamanders encase themselves in mud and receive oxygen through their skin. Others huddle together to share the little warmth they have left as do snakes, bats or mice. Many mammals like the deep-sleeping marmots have the luxury of stored fat to provide needed winter energy, but others such as the slim, trim amphibians might freeze up entirely, waiting to thaw in the Spring. Insects have a variety of ways to slumber away the winter. Some go dormant, usually underground or under rocks, others survive the winter as eggs or larvae. Worms, like the birds, migrate in the winter, but instead of thousands of miles to the south, they migrate several feet down into the soil below the freeze levels where they spend the winter in subterranean darkness.

The light sleepers such as the squirrels and chipmunks have a different strategy. They sleep during cold spells, wake in warmer periods to dine on stored snacks, and stir now and then to hit the bathroom; they are easily awakened. Skunks and raccoons take walks to forage between long naps and certain animals like the hummingbird sleep every day during the coldest hours.

Plants also slumber the winter away. Except for trees, the above ground portion of the plant dies off while the root, rhizome, or tuber sleeps away till the soil warms up in the spring. Other plants cash out completely, like the insects, leaving behind the next generation as seeds that can survive the winter. Trees mimic the animal world by either adapting to the cold and dry winters (coniferous) or by slipping into a sleepy state (deciduous) to suspend many growth activities until the next season.

Nature does nothing uselessly - Aristotle

03 FANTASTIC

As we close the books on 2003, we realize how good a year it was for us. Total income for the Association was over \$21K, up 64% from our 2002 income! While we do receive a little income from account interest, most all of our income comes from donations. Expenses for '03 were also sizably higher than '02, totaling a little over \$9K. Increased expenses resulted from contract interest on our late 02 land purchase on Tower Mtn., closing costs on the State Trust land transfer to the Association, and liability insurance that was required of us for the land transfer. The contract for our '02 land purchase for \$90K is paid down to \$68K but we still have a ways to go to complete the pay off of this purchase.

The Association increased in equity about \$250K in '03 with the State land transfer and paydown on the land contract, making it about a 12 to 1 ratio of value received to the community for natural area conservation to donation amount. It was a very good year.

This January we are sending out donation summaries for '03 as a separate letter. We continue to improve our accounting system. We are deeply appreciative of the support we have received and are determined to carry the mission of natural land conservation and stewardship on into '04 and beyond.

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 meet every other month on the third Tuesday at Opportunity Elementary School, S. 1109 Wilbur, in the teacher's lounge, 7pm. Our next meeting will be March 16.

The following are our December donors that have consented to be listed: Karen Behm, James & Marilyn Bertis, Robert Burroughs, Vivian & Tom Caulfield, Myrna Cliff, William Eagle, Joan Fergin, Walter & Alice Fernau, Scott Grimmett, Dr. & Mrs. Kenneth Gudgel, Merry & Bill Herron, Karol Kaye, Camille Kovarik, Patrick Lettenmaier, Pat Manners, James & Marilyn McCall, William & Sandra McMillan, Michael & Joan Meagher, Madeline Phelps, Luella Rowberg, Spokane Mountaineers, Jan Strobeck, Marilyn Stedman, Beth Tietjen, Jeanne Wilson, and five anonymous donors. Thank you all for making it a wonderful December.

Please use this form when sending **CONTRIBUTIONS** or **DUES**
All contributions are tax deductible

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