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Eye on the Environment

Nature's Empty Grocery Shelves By Steve Lamar, Northwest Connections

The first time my wife Sharon and I went huckleberry picking in Swan Valley we felt like we were in the land of plenty that we had struck purple gold. It was 1977, and our neighbor, Boyd Kessler took us to a couple of his favorite places to pick berries.

The bushes were thick and heavily laden with ripe, purple huckleberries. It took no time to pick a gallon or two. We wondered, "Was it always like this in Swan Valley? Was there always this bonanza of delicious fruit?"

We continued to pick berries whenever time allowed it. By season's end, it felt good to have the shelves lined with jars of huckleberry jam and a freezer with gallons of berries. We ate a bounty of huckleberry treats - pies, cakes, muffins, pancakes, and hand-cranked ice cream.

Not only did the area residents benefit from this multitude of berries, but wildlife also targeted the purple fruit. The bears in particular feasted on this valuable food source. While we were out on our huckleberry outings we observed a number of black bears and an occasional grizzly

bear. All the bears appeared well fed and healthy.

Now, fast forward to this summer of 2011. With all the early precipitation in the spring the huckleberry bushes looked promising. There were lots of flowers and small green berries forming.

I thought we were in for a great berry year - great for humans and wildlife alike. But something happened during the growing season.

When I later went back to some of the places that had looked so promising earlier in the season I found very few berries. The scarcity didn't seem confined to just huckleberries. Serviceberries, chokecherries, wild raspberries, and even mountain ash berries all seemed to be mostly absent or in very low numbers. The berries were spotty at best. Buffalo berries, thimbleberries, and gooseberries seemed to fare a bit better, but again were spotty.

What happened? There had been a couple of hard hail storms that shredded the plants in a few locations. In other areas it seemed that the flowers didn't get pollinated. In some areas the deep regional winter snow pack seemed to linger, covering large areas. By the time the snow finally melted, the growing season had become too short for the berries to mature and ripen in time. What really stood out in many of the huckleberry patches was the prevalent formation of

mummy berries. Mummy berries develop from a fungal infection called Monilinia that is transmitted to the huckleberry plant and ultimately to many of the berries.

Insects that normally pollinate the huckleberry flowers are attracted to the discolored leaves. They ingest the sugars and transmit the fungal spores to the flowers which results in the formation of the mummy berry. The berries become white and chalky looking while the leaves are often mottled with brown splotches.

Many plants were infected with this malady. This season, apparently the very wet spring and early summer conditions that the upper Swan Valley experienced were conducive to the spread of this fungal infection in the vaccinium species which include huckleberries and grouse whortleberries. In other parts of the country, this fungal infection can also lay waste to blueberry crops.

While this scarcity of huckleberries is annoying to humans, it can be life-threatening for the bears and other wildlife that utilize this natural food source. This is the time of the year that bears enter the final stage of hyperphagia, a state of excessive hunger combined with the need for an abnormally large intake of food. This condition helps the bear put on the extra pounds needed to survive the 4 to 6 months of denning and hibernation.

During hyperphagia, the bear may consume as many as 20,000 calories a day. For comparison, humans usually consume around 2000 or so. When one of their major food sources becomes scarce, bears will turn

to other natural and unnatural food sources. Unfortunately, many of the natural alternatives are in short supply.

Bears appear to be eating more plant vegetation but cannot digest fiber efficiently and thus cannot significantly increase their fat reserves for the coming denning season. They are also moving around ripping up stumps and logs for the meager supply of ants, grubs, and insects they contain. In this off berry year, bears seem to be targeting the spotty patches of black hawthorn and alder buckthorn more than normal.

Imagine if your only source of food was the local grocery food store but when you went shopping 90% of the shelves were empty and what food was left on the shelves was a bit of protein powder (ants), lettuce (the green vegetation), and a bit of small fruit (hawthorn, etc.). Sure, you can make a meal out of it, but not a very substantial one and not one conducive to gaining weight. This scarcity pushes the bear to travel farther and farther in its zeal to find food.

I'm speculating that some of the bears traveled either south or north to where I have heard the berry crops are somewhat better. Perhaps the prolonged summer-like weather will extend the growing season of the natural food sources in the higher elevations allowing these natural foods time to ripen and provide a much needed boost to our wildlife in this trying season.

Unfortunately, some of these bears are getting desperate and seeking food sources in town, around homes, and in other areas of development. Research has shown that in years of poor berry crops the incidents of

human-bear encounters rise dramatically as the food-stressed bears seek alternate sources.

The incidents of bears coming around homes in the Swan Valley appear to be increasing this fall as the bears seek out something to eat. Apple trees, dog food, bird feed, and garbage are targeted. If successful, the bear usually continues this behavior until captured and removed from the system.

“A fed bear is a dead bear” is a very true statement. We can help the situation by making our homes and surrounding areas unattractive as a potential food source for the bears. Picking the apples, using bear-proof garbage containers, not leaving bird seed out and feeding the dog inside are just a few simple and easy solutions.