

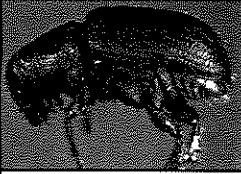
LIGHTS and SHADOWS

from the
Dishman Hills

November 2008

THE BUGS ARE HERE! THE BUGS ARE HERE!

This is Part 2 of the articles by Guy Gifford, State forester, on the bugs that like our trees in the Dishman Hills. If you found his last article a bit boring (on wood borers!) we trust you will find this one worth the read.



Red Turpentine Beetle

The article last month was titled The Bugs are Coming!, well the bugs are now here. One of the critters that has already arrived is the "dreaded" bark beetle. Why dreaded, well they can kill healthy trees in Dishman Hills in addition to the stressed and dying trees. The last major breakout of bark beetles in Dishman Hills was from 1997-1999, fueled by the abundance of downed trees from the 1996 Ice Storm. The main beetle type doing the damage during that outbreak was the Pine Engraver (*Ips Pini*). The Pine Engraver is one of four pine bark beetles we have in the Inland Empire.

This time around we are seeing the Red Turpentine beetle (*Dendroctonus valens*). On July 22nd, this beetle was found attacking the trees within this summer's fire zone. How do we know this? A forester who was walking the east side of the fire zone was pelted by the bark beetles as they flew to find new trees to attack.

These Red Turpentine beetles, which had spent all the previous winter eating and growing, decided it was time to find a new home and mate. So, during the afternoon when the trees are more water stressed the female beetles took off and began looking for weak trees to occupy. They sniff around and land on a likely host. The female beetles are picky. They look for larger trees that have little defense and since they don't like to fly too high, they focus on the bottom four feet of the tree. They also like trees that are still green inside and are sweet with sugar. Two things can destroy that sugar: 1) one is time; once a tree has fallen the sugar takes about 6 months to decompose and the bark beetle will look for other food sources; 2) the second is very hot fire that can change the sugar into a form that the bark beetle will avoid.

After bark beetles land on a tree they begin drilling into the tree. The tree starts to defend itself by pushing out pitch in the drill holes in order to eject the beetles. The battle has begun. Can the beetle swim against the pitch current or will the tree create a current of pitch that is too strong for the beetle to swim against. You can always tell when this battle happens because of the reddish pitch tube left after this battle.



Pitch tubes

In the hills this summer amongst trees stressed by the searing fires the bark beetle generally won the battle. Once the female is successful, she releases a pheromone (a scent, the beetles use to communicate). This pheromone tells other bark beetles the tree is weak and the beetles in the area attack the tree in mass.

Next summer this process will start all over. Should we be concerned about more trees dying by a Red Turpentine bark beetle attack? The answer is probably no, as a rule of thumb the Red

Turpentine attacks trees that are already stressed by fire, root disease or attacks by other bark beetles. We don't consider the Red Turpentine to be a true tree killer; it is more of an opportunist that may finish off a tree that was already dying. The two beetle species I did not talk about, the Western and Mountain pine beetles, are the true "dreaded" beetles that kill pine trees.

As you walk the Hills this winter and spring look for evidence of a bark beetle attack. If you remove some of the bark you will probably see the bark beetle under the bark.

FORUM IDEA

We seem to be entering times of challenge that will demand much of all of us to support the issues that will shape the future of our community and our nation. We must do more with less. Contend with changes beyond our control. Compromise. Conserve. Imagine new solutions and devise innovative methods to solve complex problems. Be American. To save our Natural Heritage will not be easy. Send us your ideas of how we can hike together into a green future. We can start a forum of ideas and opinions and maybe address some of the important issues.

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. Our board meets every other month on the third Tuesday. January 20, is the next meeting, 7pm, and this will be our annual general member meeting to elect board members and officers. We meet at the Moran Prairie Spokane County Library, 6004 South Regal St. Members and the public are always welcomed to drop by to see what is going on with the Association.

The following are our October donors that have consented to be listed: Nancy Cashon, Joseph Collins, Helen Cook, Judy Heggem-Davis, Earthworks Recycling, Stanley & Bernice Fahlgren Fund at Inland Northwest Community Foundation, Lila & George Girvin, Gloria Krebs, Stephanie Lambert, Cynthia Langlois, Leo Middendorf, Patti Muncy, Stephen Peterson, Adin Smith, Nan Smith, Helen Stowell, Jan Strobeck, Patricia Sweeney, Richard Taylor, Pat Thompson, Beth Tietjen, Jeanne Wilson, Art Zack, Hershel Zellman, and two anonymous donors. Many thanks in this season of Thanksgiving!

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Conservation will come from the bottom up, if you want to see the answer to the resource problem, go home and look in the mirror. - Maude Barlow, 2008, Canadian author