

CONSERVATION CONNECTION

Spring/Summer
2020



*The Mountain Bluebird –
a local summer resident.*

Ferry Conservation District...

Our mission is to safeguard the rural lifestyle and sustainable use of natural resources of Ferry County for present and future landowners, residents, and visitors by offering technical and financial assistance, outreach, and education through partnerships.

Manager's Message:

What is the Voluntary Stewardship Program? Shedding Light on a Confusing Concept



The Voluntary Stewardship Program, VSP. It's a program that is being implemented by the Ferry Conservation District that generates a great deal of confusion. Here's an attempt to add some clarity to this extremely important opportunity for agricultural producers along with other landowners in Ferry County.

Generally billed as an alternative to the Growth Management Act (GMA), VSP was spawned by the state legislature in 2011 as a way to balance agricultural viability with critical area protection. In 2012 the Ferry County Board of Commissioners opted into the program. One of the comments that I frequently get is "if I don't participate in VSP, I get GMA. That doesn't sound very 'voluntary' to me". That's a good point but the word "voluntary" in VSP isn't about the either/or relationship to GMA. It's about what landowners have done to protect or enhance critical areas without a regulatory gun pointing at them. They did these things because it was good for the land they owned and important to them. Good stewardship. Voluntarily. Telling this story is where we need your help.

The Conservation District is tasked with documenting the practices that landowners have put in place since 2011 and reporting them to the State Conservation Commission who in turn reports to the legislature. Under a state statute all information collected is not subject to any public disclosure. The choice is up to the landowner, stay completely anonymous or show off what they've done for the benefit of the land. It's their call.

Having grown up in agriculture, I know that taking good care of the land with an eye towards the future is a top priority for an overwhelming number of producers. So is making a living. VSP is an opportunity to show skeptics in the legislature and elsewhere that agricultural viability and critical areas can coexist. It's vitally important for the Conservation District to be able to gather the information necessary to document this. If you're willing to share your contribution to voluntary stewardship, what you've done since 2011 to protect or enhance critical areas, please give us a call.

-Dave Hedrick

Mark your calendar:

- **Conservation District Board of Supervisors Meeting, Wednesday, July 22, 5:30 PM. Call-in only. 509-775-3473, ext 100 for information.**
- **VSP Work Group— Visit our website: ferrycd.org for next meeting date, time and location.**
- **Rescheduled: 2020 Spring Conservation Fair. Date: TBA. F.C.**

Inside this issue:

Voluntary Stewardship Program - Manager's Message	1
Diseases and Insect Pests in our Local Forests	2
Tree pests and Diseases (cont.)	4
Orca Whales—Extinction is not an Option	4
Meet Cindy Bracken, our new VSP Technician	4

Disease and Insect Pests in our Local Forests



Lodgepole pines attacked by mountain pine beetle.

Pine trees have been dying by the thousands in the American West. Responsible for this devastation is a small insect known as the **mountain pine beetle**. This beetle burrows into tree phloem, the inner bark tissue, and lays its eggs. Larvae hatch from the eggs, and tunnel throughout the phloem, essentially girdling the tree and killing it. The vast majority of trees victimized by the mountain pine beetle are lodgepole pine trees, large stands of which cover the landscape here and in other parts of the West from mid to upper elevations, especially in old burn areas. Eastbound travelers cresting Sherman Pass and entering an area burned by the Dollar Mountain Fire in the 1920s will see many of these red, brown and grey dying and dead trees.

Do I need to worry about my trees?

Should forest landowners be fearful that their trees are in danger of succumbing to the same epidemic affecting the lodgepole pine? For the most part, the answer is no. At lower elevations, where most private forests are found, stands of lodgepole are rare. The dominant conifer species in western Ferry County valleys are western larch, Douglas-fir and ponderosa pine. While not threatened with mass devastation as is the lodgepole, each of these trees does, however, have its own issues with disease and pests.



Entry holes in bark are sign of western pine beetle or pine engraver (Ips).

“...make sure that slash (with diameter of more than 4”) is not generated and left available to the beetles between January 1 and July 15.”



Frass (looks like sawdust) in bark and at base of tree indicates bark beetle presence.

Ponderosa pine

Recently in our area, more ponderosa pine trees are dying, probably from damage caused by one of several bark beetles. The **mountain pine beetle**, the same insect killing lodgepole pines at higher elevation, may damage a stand of densely growing ponderosa. Larger, older and more stressed ponderosa pines are susceptible to infestation by the **western pine beetle**. While both of these beetles may kill the ponderosa by girdling it, the devastation is unlikely to come close to the widespread damage wreaked on the lodgepole pine trees higher up.



Dead top of larger diameter pine may indicate Ips beetle.



Fresh storm and logging debris provides a home for Ips beetles in winter and spring.

Another threat to local ponderosa pine is the **pine engraver** or **Ips** beetle, a bark beetle which infests small trees or the tops of larger ones. The Ips beetle is dependent on slash left behind from logging or winter storms. Slash over 4” in diameter created during the winter and spring provides an attractive home for the beetles which lay many eggs resulting in large population increases. This next generation matures within several months or weeks and can then infest nearby living trees, especially those stressed by drought or competition (dense stands). At summer’s end, the last generation of the year shelters in the forest duff. Few survive the winter unless new slash becomes available to extend the cycle. The best way for a landowner to avoid infestation by the Ips beetle is to make sure that slash (with diameter of more than 4”) is not generated and left available to the beetles between January 1 and July 15. Slash generated before or after those dates will be too dry to appeal to the beetles by the time they are looking for places to lay their eggs.

Pine needle blight or needle cast is a fungal infestation which kills one-year-old needles on ponderosa pines. Though the sight of brown pine trees in April may be upsetting, the fungus will not kill the tree. When new needles appear on the branch tips in May, the tree will become green again. Needles are recycled periodically. In autumn, landowners may see some of the oldest needles



Some brown needles on pines from needle blight in spring are no cause for panic.

on their pines, located closest to the trunk, turning brown. This is a natural process. More drop off in drought years. New needles sprout from buds on the branch tips each year.

Douglas fir

Currently, the most prevalent bark beetle issues occurring locally in Douglas firs are caused by the **Douglas fir engraver beetle** or the **Douglas fir pole beetle**. These beetles are usually secondary, occurring in association with other stresses. In our area, several years of drought have created the right conditions for these beetles to flourish. Piles of logging slash can exacerbate the conditions for these two beetles. Look for mortality of smaller trees and top-kill or branch-kill in larger trees.

Douglas-fir can be threatened by the **Douglas fir bark beetle**. These insects often show a pulse in their population after a wind storm or a snow breakage event. Similar to *Ips* beetles, Douglas-fir beetles find the downed material to be perfect for infestation and raise a big population that can then move to nearby live, standing Doug firs in subsequent years when the fallen or broken material has been depleted or dried out. They primarily seek trees over 14" DBH.

Western larch

Western larch is probably the most disease and pest resistant of the three common conifers. Just the same, there are some foliage pests which may affect them. The **larch needle cast** is a fungus, which attacks and kills the early foliage. The host tree may take on a "fall color" in May or June. The **larch casebearer** is a tiny moth whose larvae eat their way inside larch needles in early spring. After the feeding produces a similar fall appearance as the needle cast, the tree is normally able to produce a second flush of needles. In the unlikely event of five or more years of defoliation by either needle casts or casebearer insects, the tree may become weak and extremely vulnerable to other pests and disease.



Needles infected by larch needle cast remain attached giving the tree a "fall color" in spring.

Grand fir

The **fir engraver beetle** (*Scolytus ventralis*) has been increasingly affecting Grand fir trees on the east side of Ferry County and in the Wedge in Stevens County (Grand fir is rarely found on the west side of the Kettle Crest). Unlike other bark beetles, the fir engraver can reproduce without completely killing its host tree. Therefore, symptoms may include dead branches or top kill. Mortality is more likely to occur in combination with other stresses, such as drought, defoliation or root rot. While healthier trees may survive beetle infestation, damage may reduce market value of the timber. The fir engraver beetle produces a distinctive transverse (perpendicular to the grain) egg gallery pattern.

*"The fir engraver beetle (*Scolytus ventralis*) has been increasingly affecting Grand fir trees on the east side of Ferry County and in the Wedge in Stevens County ..."*

Root disease



Large structural roots of downed trees may be partially or totally decayed leaving a "root ball."

Root disease is probably the most serious threat facing a small forest landowner. Of the three common conifers, Douglas-fir is the most susceptible to root disease. The three most prevalent root disease in our area, **armillaria**, **annosus**, and **laminated** are all caused by pathogens in the soil and can cause damage to an entire stand. Though there is no easy way to get rid of these pathogens completely, the best way to deal with an outbreak is to remove the susceptible trees and replace them with trees more resistant to the pathogen.

What can be done?

A century of fire suppression and past logging methods have left us with an abundance of dense Douglas-fir stands, more susceptible to insects and disease. A good long-term strategy would be to manage our forests with a preference for more Ponderosa pine and Western larch.

What is the takeaway from all of this for forest landowners? While long-term management practices (including fire suppression) and drought have indeed put forests at a higher risk, it is important not to panic. With the exception of root rot, most of these pests and diseases are probably not going to inflict serious damage to stands of low elevation timber. Preventative measures can be taken to protect trees. The most effective of these is to thin overstocked stands of young trees, improving the overall health and vitality of the remaining trees, making them less susceptible to infestation by disease or insects and better prepared to face wildfire. (*Tree pests and disease, cont. on pg. 4*)

Ferry Conservation District

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Conserving Natural Resources
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ORCA WHALES

Extinction is Not an Option

The Southern Resident orca whale faces three main threats: availability of Chinook salmon, toxic contaminants in the environment, and disturbance & noise from water vessels.

On March 14, 2018, Governor Jay Inslee formed the Southern Resident Killer Whale Task Force to develop long-term action recommendations for orca recovery. After a series of meetings & surveys that generated more than 18,000 public comments, the task force delivered a 36 point plan in November 2019. This plan presents some bold and contentious ideas, such as removing dams and banning whale watching. According to Washington Department of Ecology, there is no shortage of ways for individuals and groups to help orca and salmon. Near the coast or far inland, all Washington waters are part of a healthy food web for orcas.



In Ferry County, we can continue to provide clean water to the Columbia River by protecting and improving riparian areas and wetlands. By efficiently utilizing water for irrigation and home use, we can leave more water in the stream for instream wildlife. The Ferry Conservation District can help individuals and landowners identify and implement practices that protect and improve water quality & quantity. For more information, please contact Dave Hedrick at 509-775-3473 ext. 105 or at dave.hedrick@conserveswa.net.

The Ferry Conservation District is excited to welcome Cindy Bracken to our staff!



Cindy joined the Conservation District June 1st as the Voluntary Stewardship Program technician. She'll be completing field work and reporting on existing projects for the VSP. Cindy moved back to Washington last year after 20 years in Virginia. While there she managed a landscaping company focusing on indigenous and pollinator friendly design in addition to teaching pollinator focused educational programs with local schools and botanical gardens.

We're on the Web. Visit us at:
<http://www.ferrycd.org>

Tree Pests and Disease *(cont. from pg. 3)*

For more information on tree diseases and pests and the technical and cost-share assistance that is available to private landowners for forest treatment, visit the Washington Department of Natural Resources (DNR) website: <http://www.dnr.wa.gov/ForestHealth>. The Natural Resources Conservation Service also offers technical and cost-share assistance for private forest thinning and pruning Call 509-685-0858 (ext. 117) for information.

Many thanks to Mary Rourke, USDA Forest Service Republic Ranger District (retired), Karen Ripley, USDA Forest Service Entomologist, Melissa Fischer, DNR Forest Health Specialist, and James Beckwith, USDA Curlew Job Corps, for sharing their vast knowledge of these issues.

Ferry Conservation District is a non-regulatory agency. Our services are available to all without discrimination.