



The Perennial Word

April 2016

Volume 5, Issue 1

Cedar Mountain Perennials:



Specializes in native plants for the Inland Northwest Garden.

Offering a wide selection of native perennial wildflowers grown from seed or cuttings at our nursery outside Athol, Idaho. We also feature a limited selection of trees and shrubs.

Our plants have been selected to be ideally suited for climate, soils, and moisture regimes of the Inland Northwest.

Inside this Issue:

Editor's Note	1
Landscaping for Native Bees	2
The Buckwheats	3
Bark Beetles and Storm Damage	4
Calendar of Events	6
Retail Locations.....	8
Products and Service	8

Editor's Note:

Welcome to the first issue of our 2016 Newsletter Series: The Perennial Word. Here at Cedar Mountain Perennials we are busy growing plants and we have a lot coming along that we hope you may enjoy in your own gardens.

In this issue we are focusing on three topics. The first is regarding native bees and Jill will discuss what these insects are, why they are so important in our gardens and our larger Inland Northwest ecosystems. What types of plants are beneficial for them and how you can create your own bee habitat including nesting habitat.

The second is our feature on a plant group or species and this issue we will be focusing on the buckwheats. Bob will introduce you to several of these interesting plants and where you might grow them.

Our final topic is about some of the issues associated **with last winter's blowdown, those trees that came down** either in the November wind storm or the snow storm in late December. What are the risks associated with insects infesting this material this spring and what you can do to reduce those risks so that you **don't have insects emerging out this material and attacking live trees on your property.**



Promoting Native Bees in Inland and Northwest Landscapes

By Jill Wilson

When people think about pollinators they immediately think of butterflies and honeybees. When they think of planting for pollinators, they often think about milkweeds to aid Monarch butterflies and those beautiful red flowers to attract hummingbirds. Did you know that 80 percent of our flowering plants are pollinated by native bees? Even a number of crop species such as blueberries, cranberries and squash are pollinated by native bees. These bees are truly the workhorses of the pollinator world and the subject of this issue's feature article.

There are over 4000 species of native bees in North America! Most of our native bee species, with the exception of bumblebees and a few other groups, are solitary bees. Solitary bee's provision and care for their own nests, they do not form colonies, and they don't sting! Native bees come in a wide range of sizes; they are also varied in their life styles, places they frequent, nests they build, flowers they visit and season of activity. They remain unnoticed by most of us and yet they provide valuable services to all kinds of flowering plants, from wild flowers to important crops.



While Colony Collapse Disorder (CCD) has made the news with its effects on honey bees, the threats to native bees, even though they do the yeoman's share of pollination here, is not often heard outside of conferences attended by Entomologists! The main threats to native bees are habitat loss, degradation, fragmentation, pesticide use, introduced pests and diseases, and climate change. Native bees are dependent upon complex and diverse natural ecosystems for their survival. Some are generalist species pollinating a wide variety of plants, others are specialists and may be dependent upon one or just a few species of plants.



Keying in some of the major issues for native bee species, habitat loss, fragmentation and degradation, planting a diversity of native plants in our landscapes to provide bees with season long access to pollen and nectar is very beneficial. There are a number of perennial plants that are excellent species to promote native bees. Among the flowering perennials globe mallows (*Sphaeralcea* spp.), sunflower family (asters, daisies, blanketflower, balsamroot, goldenrod, etc.), Legumes (lupine, vetch, and milkvetch), penstemons, biscuitroots (*Lomatium* spp.), buckwheats (*Eriogonum* spp.) and those of the Mint family (*Agastache*, *Monarda*, and *Monardella*) are excellent choices. Several shrubs

are also very beneficial including Currants (*Ribes* spp.), Oregon grape (*Mahonia* spp.), Saskatoon Serviceberry, Snowberry, Rabbitbrush (*Chrysothamnus*) and Willow (*Salix*). Include flowers of different shapes and colors in your plantings. Bees are different sizes and different species actually have different tongue lengths which affects the size and depth of the flower they can work. Also include flowers of different colors, as different species of bees may be attracted to different colors. Flower colors that seem

(Continued on page 5)



Featured Native Plant: The Buckwheats

By Bob Wilson

I love buckwheat pancakes as well as anyone, but this article is about quite a different kind of buckwheat. Both the cultivated buckwheat and the native buckwheats are in the knotweed family but that is where their similarity ends. Despite their name, they are not a kind of wheat which is in the grass family.

The wild buckwheats are classified in the genus *Eriogonum*. It is estimated that there are ~250 species, mostly native to arid regions of western North America. *Eriogonum* includes both perennials and annuals. Some have a woody base and can get quite large. They are particularly useful for native bees seeking nectar and serve as host plants for some butterfly caterpillars.

Wild buckwheats can be quite useful in the landscape providing a long bloom period. An interesting feature of the mid-summer bloom is that it often displays one color in bud, such as a pink or red, which softens as the flowers open, becoming either white/cream or yellow. Flowers may be held on the plant even after they have dried extending the bloom even further.



Cream Buckwheat



Cream Buckwheat

The Sulphur Buckwheat (*Eriogonum umbellatum*) is the most commonly cultivated and one we are growing at Cedar Mountain Perennials. The name suggests that it has a yellow flower, which is usually the case; however, the species is so variable that botanists have divided it into 30 different varieties. The only type in northern Idaho (var. *major*) has a creamy-white flower. The foliage is very low and forms a dense mat and is surprisingly colorful in the fall, showing quite a bit of deep red. Flower clusters are large and grow 1' above the leaves. We are also growing one of the yellow-flowered forms which has larger leaves and a

more open growth form.

The Wyeth Buckwheat (*Eriogonum heracleoides*) is the largest species we are growing getting 15" tall and spreading at least 2-3' across. It also has a creamy white flower. Leaves are narrow and slightly grey-green. It does very well in a sunny perennial bed.



Wyeth Buckwheat

We've recently started growing the Cushion Buckwheat (*Eriogonum ovalifolium*), a smaller species and a choice rock garden plant. It grows no more than 6" tall and has an equal spread. The foliage is a

(Continued on page 6)



What's Bugging Me? Bark Beetles and Storm Damage

by Jill Wilson

Mother Nature gave us a lot to deal with in the last two years. Remember the wind damage following severe thunderstorms in summer 2014? Then we had unusually warm and dry weather in June, July and August in summer 2015. That contributed to a number of fires throughout our area in the summer of 2015. To add insult to injury there was the wind storm of November 2015 which clocked hurricane force wind gusts in some places in the region. Finally we ended 2015 with heavy snows. All of these incidents have resulted in large numbers of damaged, dead and dying trees in the region. The amount of damage from the December snow storm alone was enough to cause the Kootenai County Commissioners issue a Declaration of Emergency.

Depending upon the weather during the remainder of 2016 we could see a significant increase in bark beetle and wood boring beetle populations in the region as well the potential for additional tree mortality. What we might expect and what we might do about that is the subject of this issue's What's Bugging Me column.

The abundance of storm damaged trees prompted the Idaho Department of Lands to issue a News Release in December warning area residents of the potential for bark beetles to infest Ponderosa, Lodgepole pine, and Douglas-fir trees damaged in November this spring. Of course that advisory was put out prior to the snow storm in December that laid down yet more trees in the region. Specifically they advised residents that Ponderosa and Lodgepole pine greater than three inches in diameter could provide host material for pine engraver bark beetles that could attack this material in April and May, with



Pine Engraver

their brood emerging in June. Those beetles emerging in June could potentially invade standing living Lodgepole or Ponderosa Pine, killing them. They also warned residents that Douglas-fir damaged in these storms can host the Douglas-fir beetle which undergoes a yearlong life cycle in the downed trees before emerging the following spring with the potential to attack standing green Douglas-fir in 2017.

It should also be mentioned that this abundant storm damaged material may also host wood boring beetle species, in fact they are often the most common of the wood infesting species to colonize this material. Typically these insects do not invade or kill healthy living trees, however under certain rare conditions such as we had last summer these insects can attack standing trees when they are severely weakened or predisposed by other factors. We saw this happen last year when we began to observe sizable patches of small trees, mostly Lodgepole Pine turning color with needles turning from green to brown in a number of places along the highway 95 corridor. Those beetles most likely originated from the wind damaged material created in summer 2014. Beetles emerged from that material in 2015 when we had the very hot and dry summer and subsequently attacked a number of weakened trees.

There is certainly the potential for additional tree mortality from beetles infesting down trees and tops created from the storms in November and December. The greatest concerns as discussed in the IDL news release are for additional tree mortality in Douglas-fir, Lodgepole Pine and Ponderosa

(Continued on page 7)



(Continued from page 2)

particularly attractive to bees include blue, purple, violet, white and yellow.

Seventy percent of native bees nest in the ground, while only thirty percent nest above ground. Those that nest in the ground require patches of bare ground with a well-drained soil. This is a case where using mulch to cover the ground which is highly recommended to reduce incidence of weeds and conserve moisture in the soil, actually makes life more difficult for bees. Leaving an area from a few inches to a few feet across, preferably in a well-drained location will provide native bees with a potential area to build their nests. Those that nest above ground, often use insect tunnels in dead wood or hollow stems of plants. You can create nesting habitat for them by making nest blocks out of wood (no preservatives please), or adding logs or pieces of stumps to your garden. Logs that already have insect tunnels, evidenced by emergence holes on the surface of the wood are ideal. The wood should be placed in a sunny location, preferably oriented upright so that the piece remains dry and not saturated with moisture. If you don't have access to dead wood, you can create nesting habitat by drilling holes in wood blocks. Different size bees utilize different size holes so providing a variety of sizes is helpful. The Homemade nest blocks may be attached to a fixed object and oriented so that the holes are horizontal and placed so that the openings face east or southeast. Other bees nest in hollow stems of plants; again depending upon the species they select different sizes for their nests. You can create your own tube nesting habitat for bees by taking pieces of bamboo or hollow reeds or even straws cutting them to length with one end closed by a node (usually indicated by a ridge), strapping them together and, as with the wood blocks, attaching them to a fixed object with the tubes oriented horizontally. Nest materials should be replaced every year or two to prevent the buildup of parasites and disease.



Once you have planted your garden and created your nest habitat sites it is time to watch the fruits of your labors. When your plants begin to bloom you can start watching the flowers to see who is visiting what. You may even be able to identify some of them as there are websites that share pictures of different types of native bees. Some bumblebee species are quite distinctive as this guide to western bumblebees shows: http://www.xerces.org/wp-content/uploads/2008/09/Western_BB_guide.pdf.

To learn more about native bees and their role in our environment you will find much more information about them at the following sites:

Plants for Pollinators in the Inland Northwest

http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmstn10799.pdf

The Xerces Society for Invertebrate Conservation

<http://www.xerces.org/>

Resources for Bees and Beekeeping

<http://extension.wsu.edu/snohomish/garden/gardening-resources/bees-and-beekeeping/>

USDA Pollinating Insects Research

http://www.ars.usda.gov/main/site_main.htm?modecode=20-80-05-00



(Continued from page 3)

striking silver mound of oval leaves. Flowers often display a rosy-red hue in bud which fades as the flower develops a creamy yellow color. The color transition is delightful to watch.

All buckwheats are exceptionally drought-tolerant. They require a medium to coarse, well-drained soil and minimal watering once established. They do not tolerate shade and will need a very sunny location. Many are outstanding in the rock garden.

Buckwheats also serve as a nectar source for many insect pollinators. Flowers are shallow which provides access to nectar for small bees, parasitic wasps, butterflies, and many others. On a warm day when they are in bloom you can observe a literal parade of different insects visiting these flowers.



Cushion Buckwheat

Buckwheats also serve as a host plant for several butterfly larvae in addition to providing nectar for the adults. Several of the blues and copper butterflies (family Lycaenidae) as well as the Mormon Metalmark will lay their eggs on buckwheats. The larvae of all of these are small and likely will not be noticed when they are present.

Important Dates to Remember

- April 15..... Nursery opens on Fridays
9:00 am to 4:00 pm
- April 30..... Gardening Books Feature
The Well Read Moose
1:00 to 3:00 pm
2048 N. Main Street
Riverstone, CdA
- May 7..... Kootenai County Farmer’s
Market Opening Day
9:00am to 1:30 pm
- May 11..... Sandpoint Farmer’s Market
Weds. Opening Day
3:00 pm to 5:30 pm
- May 14..... Spokane Garden Show
Spokane Community Col-
lege
9:00 am to 5:00 pm



(Continued from page 4)

Pine. The greatest risk will occur if we have a drier than normal spring. The worst cases of tree mortality associated with the pine engraver beetles have occurred when precipitation from April through July is 75 percent or less than normal. So our precipitation over the next few months may be very important in determining our risk.

To prevent the possibility of beetles spreading from the damaged trees into living trees, it is recommended that landowners remove as much of the downed material as possible. For those trees that cannot be salvaged, which is certainly possible with the sheer number of down trees we have in the area; the best action is to limb and cut this material up into smaller lengths and expose the material to the sun. Do not pile up stacks of green firewood next to living trees; do not leave uncut damaged green trees in shady locations as these are the most favorable for beetle development.



Douglas-fir Beetle

The timing of these operations is important. The first flights of the Pine Engraver Beetle which attacks both Lodgepole and Ponderosa Pine occur in April and May as the temperatures reach 60 to 70 degrees. The same is true for the Douglas-fir Beetle which attacks Douglas-fir. These beetles will preferably attack downed trees of their favored host species so, for the pine engraver beetles, Lodgepole and Ponderosa Pine are hosts; and for the Douglas-fir beetle -- it is Douglas-fir. These beetles will create their characteristic galleries under the bark and lay their eggs. In the case of the Pine Engraver Beetle the next generation of beetles will emerge within 40 to 55

days from the adult attacks in April to May. In our area that is usually in June and July. It is this generation of pine engraver beetles that may first begin to attack standing trees. This means that trees damaged from last winter should be treated by late April to early May in order to reduce the likelihood of beetles emerging in June. In the case of Douglas-fir, the Douglas-fir Beetle takes one year to mature, so the next generation of beetles won't emerge until the spring of 2017. This provides more time for treatment of this material.

If you are concerned about the potential for bark beetle caused losses to trees on your property as a result of these storms and are looking for additional information you may find it on the Idaho Department of Lands web site under "Hot Topics" at this link: <http://www.idl.idaho.gov/forestry/forest-health/index.html>. The Department of Lands also has Private Forestry Specialists who are available in offices across the region to assist forest land owners. A list of IDL office locations and contact information is available here: <http://www.idl.idaho.gov/areas/index.html>.



Douglas-fir beetle egg gallery



Cedar Mountain Perennials

Products and Services

Wildflowers:

Our selection includes over 60 species of local, regional and western native wildflowers.

Shrubs and Trees:

We carry a broad selection of native shrubs and some trees.

Pricing:

We offer retail sales through the Kootenai County, Sandpoint Farmer's Markets and the Six Rivers Market. Volume discounts are available to landscapers and those purchasing in quantity

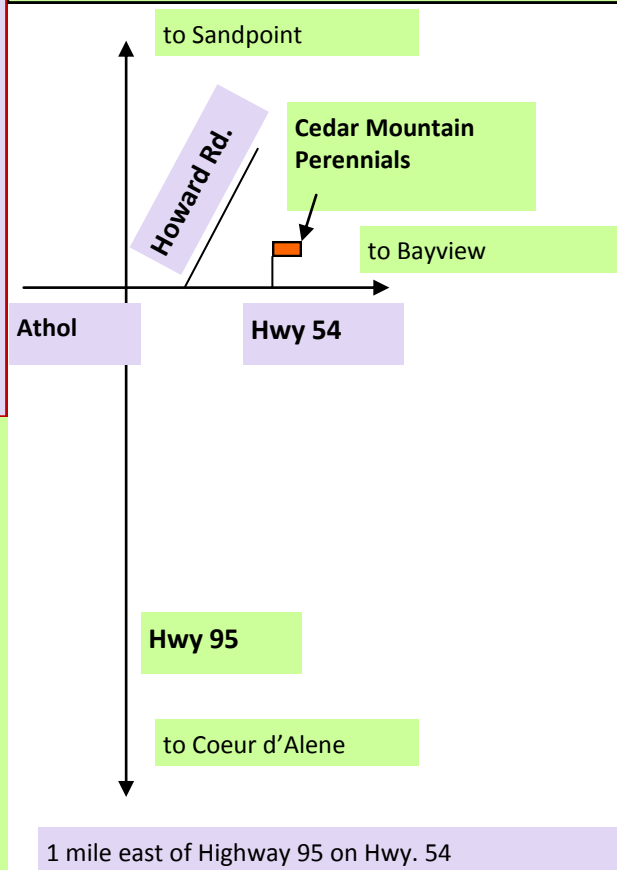
Consulting:

- Site Evaluations
- Plant Identification
- Plant Selection
- Pest and Disease Diagnosis
- Training



Balsamorhiza sagittata:
Arrowleaf Balsamroot

To Find the Nursery:



RETAIL LOCATIONS:

Saturdays:

Kootenai County Farmer's Market
Highway 95 and Prairie Ave.
Hayden, Idaho
Note new time 9:00 AM to 1:30 PM

Wednesdays:

Farmer's Market at Sandpoint
Farmin Park, Sandpoint, Idaho
3:00 to 5:30 PM

Fridays:

At the Nursery
9:00 am to 4:00 pm

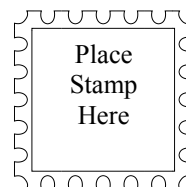
By Appointment:

The Nursery
7875 E Highway 54
Athol, Idaho
Please call first
(208) 683-2387



Erigeron speciosus
Showy Daisy

Cedar Mountain Perennials
7875 E Highway 54
Athol ID 83801



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