Newsletter of the Sierra Club Palouse Group Serving SE Washington and Central Idaho

Spring 2023

Reducing Pollinator Exposure to Neonicotinoids

by Timothy D. Hatten, PhD

At long last it's springtime. For many folks this means it's time to start working the yard and planting the garden. While doing so let's remember that flowering plants attract pollinators which increase the productivity of our fruit trees and vegetable gardens, as well as brighten up our lives!

The use of chemical products to boost productivity or enhance protection of our ornamental flowers, shrubs, trees or tomatoes is common, as evidenced by the abundance of home garden products available at our local plant nurseries. Unfortunately, many such products harm pollinators, particularly when not properly applied. Neonicotinoids are a group of popular pesticides commonly available to homeowners that are extremely dangerous to pollinators. Usage of Neonicotinoid insecticides ("neonics" for short) has steadily grown since their introduction in the '90s, so much so that they now make up 35% of the world's insecticide market - and have become the single largest class of insecticides in the world.

Neonics are a class of nicotine-like insecticides that provide long-term protection to plants from chewing and sucking insects. They are popular because of this long-term protection and because they are easy to apply and less toxic to mammals (including humans) and birds than previous generations of pesticides. They also come in many different formulations (dust, spray, liquid, etc.) for a variety of different homeowner uses. Easy to see why they are so popular!

The long-term protection and ease of application of these insecticides is due largely to the fact that they are systemic insecticides. This means they are highly water soluble and are absorbed when applied to plants. Indeed, they are frequently applied in irrigation water. After uptake the neonic toxins are translocated via the vascular system to the whole plant including its roots, trunk, branches, stems, flowers and fruits. The whole plant is then protected from would-be pests for weeks to months at a time.

The flip side to the kind of protection that these systemics provide is that beneficial insects, including pollinators, that feed on treated plants are also poisoned by them. Pollinators visit our gardens, trees and flower beds for food, both for themselves and their offspring. When they do so, they are indirectly exposed to these pesticides. They can also be directly (See "Pollinators" on Page 3)

Hike the Fish Creek Trail early this summer!

Join us on Saturday, June 24 for a day hike up the beautiful Fish Creek Trail just off the Lochsa River in the Clearwater National Forest. We'll hike up this easy to moderate trail which meanders along the creek alternating between areas in forest near the creek to open slopes with gorgeous views above—in a search for the perfect lunch location! If there are enough of us on the hike, we may split into a more mellow group and one interested in hiking further in. Though planned as a day trip, there are a number of car camping opportunities in the vicinity, including the Wilderness Gateway campground, where some of us will probably camp.

The trail (#2240) is about 120 miles east of Lewiston, shortly before the Wilderness Gateway campground, and just off the Lochsa River.

If you would like to sign up for the trip or get on the list for updates and more details, email Mac Cantrell (macantr18@gmail.com) or Al Poplawsky (alpopsky@gmail.com).



Executive Committee Election Results

Thank you very much to those who voted. We're very pleased to announce that Lynne Nelson, Rich Alldredge, and K'den Bledsoe were elected to two-year terms. A particular welcome to K'den, a MHS student serving his first term, and a big thank you to Lynne and Rich for their continued service. Look for an article from K'den in this newsletter!

Hwy 95 Thorn Creek to Moscow.

by Al Poplawsky

The twenty year struggle to convince the Idaho Transportation Department (ITD) and National Highway Administration (NHA) to choose the least environmentally degrading route for the project continues. The latest news is a win for the Paradise Ridge Defense Coalition (PRDC, of which the Palouse Group is a member).

In order to initiate the project, ITD applied for, and procured a Clean Water Permit from the Corps of Engineers (COE) which allowed them to essentially destroy thirteen wetland sites in the project area. One stipulation of their permit was that all of the sites had to be 0.5 acre or less in size. PRDC sued in court claiming that site 1 was larger than 0.5 acres, and hired professional wetland biologists and surveyors to characterize and map site 1 on the ground. They concluded that site 1 was much larger than 0.5 acres, and their conclusions hinged on the presence of a wetlands soil type which the original ITD study did not consider. Subsequently, COE agreed with PRDC, pulled the ITD permit for all of the wetland sites, and prohibited them from further degrading them. Sadly, construction had already destroyed five of the sites.

COE has now required, and ITD has provided a new application for the clean water permit. Meanwhile, PRDC wetlands scientists did an additional "armchair" study (no field work) and concluded that the wetlands soil type which ITD missed at site 1 is present throughout the project area, including in other wetland sites. This study was provided to COE, and ITD took note of it and re-sampled several wetlands this spring. This all occurred prior to COE's receipt of the new Clean Water Permit Application from ITD.

So, PRDC's lawsuit was successful and forced the withdrawal of the original Clean Water Permit. PRDC's lawyers were anxious to collect legal fees from the defendants, thus PRDC settled the lawsuit and their lawyers were awarded their additional legal fees. Consequently, PRDC does not currently have a lawsuit in court challenging the project. However, PRDC awaits the decision from COE as ITD continues the permit application process, and is ready to continue the struggle if needed.

Join the Rose Creek Nature Hike

Sunday, June 4, 9:00 am Rose Creek Nature Preserve

The Preserve is 7.5 miles northwest of Pullman.

We'll meet at the Rose Creek Nature Preserve parking area on Shawnee Road. After a brief overview of the history, flora, and fauna of the preserve by a Rose Creek representative, we will take a self-paced nature walk of about 1-mile round trip, 60 feet elevation gain. The Preserve is one of the few remaining vestiges of native Palouse Prairie habitat featuring wildflowers, birds, and other wildlife. You might decide to do multiple loops to better absorb all the Preserve offers. Ride-sharing is encouraged. Fresh baked treats will be available at the parking area after the walk.

For more information and sign up, contact Rich Alldredge (509)592-7956 or rich.alldredge@gmail.com

Updating the Columbia River Treaty

by Rich Alldredge

The Columbia River Treaty is a 1964 agreement between the U.S. and Canada that controls the Columbia River's flow across the border. The Treaty, which expires in 2024, has had a major impact on fish, hydro-electricity, flood management, agriculture, navigation, recreation, and more. The current treaty has an exclusive focus on maximizing hydropower production and engineered flood control. To date, it has largely ignored Indigenous rights, the needs of endangered salmon and steelhead, water quality and the health of the river.

The Treaty's governance system centers around the U.S. Entity (led by the Dept of State and including the Bonneville Power Administration and the U.S. Army Corps of Engineers) and the Canadian Entity (that includes the BC provincial hydropower corporation). However, there are ongoing processes in Canada to prepare new governance models that appropriately respect Indigenous rights and engage local communities.

The Palouse Group of the Sierra Club is part of an alliance of Northwest-based civic, faith, energy, and conservation organizations working for a modernized Columbia River Treaty that will serve our region's diverse needs now and into the future. To do this we are asking the U.S. Entity negotiators to update the Treaty to:

- Make ecosystem health co-equal to existing treaty purposes of power production and flood control, so river flows and reservoir operations support fish and clean water
- Ensure the modernized treaty respects the rights of tribes and Indigenous Nations and honors their unique expertise
- Reform treaty governance and implementation to include expert representation for ecosystems, like biologists working alongside engineers
- Develop a new agreement for coordinating flood control across the border, so there is a balanced system for all
- Share hydropower and other benefits produced by the treaty fairly between the two countries, in keeping with its original principle
- Create ongoing mechanisms for public education and citizen involvement, starting right now with renewed engagement between federal agencies and the Northwest public.

Visit columbiarivertreaty.org to learn more!

Moscow High School Environmental Club Partners

By K'den Bledsoe newly elected PGSC executive committee member

The Moscow High School's Environmental Club was founded in 1989 by four girls who wanted to stop the use of Styrofoam in the school. Dedicated to providing public services and education on environmental issues, the Club's varied projects have included maintaining trails and planting native plants at Virgil Phillips Farm and running the "Nessy" (elephant) Ear fundraising booth at Moscow's Renaissance Fair. The Environmental Club offers internships. For example, I got the chance to educate elementary kids about the Phillips

Farm during their Wildlife Camp. The Club also takes part in a 5-day summer or winter Ecology Project International trip to Yellowstone, to learn about local wildlife and to help scientists there collect data.

Another rewarding adventure for Environmental Club members over many years has been the annual Turtle Trip to Oaxaca, Mexico. Students work with a fisherman's cooperative to collect turtle eggs, relocate them to a safe area, clean and feed hatchlings and their enclosures, and assist with anything else that needs doing,

The Environmental Club is a great place for high school students to be active in their community and find amazing opportunities to work in the ecology field.

Pollinators (Continued from Page 1)

exposed to neonics by coming into contact with them during the application process, by breathing in or by absorbing spray or dust formulations. Pollinators can also absorb neonic residues simply by touching the surfaces of treated plants.

It's worth stating again that Neonics are highly soluble in water and bind poorly to soil. These pesticides can be carried away from your garden or landscape in runoff and potentially contaminate adjacent surface water bodies, groundwater and vegetation if not properly applied. Because neonics are toxic to fish and aquatic organisms, it is important to keep them out of natural waterbodies. Although neonics don't bind well to soil, they can get stored in the soil profile and continue to be taken up by plants for months after application. This could be beneficial if long term plant protection is desired, but it could also be problematic if you are trying to time your application of neonics to limit direct or indirect exposure of bees or other beneficial insects. Neonics can also persist in soil for days to years after application and may build up with repeated usage. This residue can subsequently be taken up by plants and re-expressed, so these insecticides should be applied carefully (or not at all).

Homeowners can reduce risk of soil and water contamination by following label instructions carefully. The ENVIRONMENTAL HAZARDS sections of product labels provide explicit language on usage around water. Language varies from product to product, but they generally direct one to not apply them to or around water, nor allow them to runoff into surface water, ditches, storm drains, gutters, etc. They should also not be applied during or within 24 hours of rain events.

If you decide to apply neonics, you can reduce the risk of direct exposure to pollinators by FOL-LOWING LABEL INSTRUCTIONS. Most labels state clearly that they are toxic to bees, and should not be applied if bees are actively visiting the treatment area. Some should not be applied until all petals have fallen off flowers, some should not be applied or allowed to drift onto blooming crops or weeds while bees are visiting. The Dinotefuran products also direct one to minimize drift onto beehives or off-site pollinator habitats. Unfortunately, this warning is seldom placed prominently on the product, but typically found on the back under the PRECAUTIONARY STATEMENTS. Familiarize yourself with this section and the APPLICATION INSTRUCTIONS. Remember, the label is the law so follow instructions!

Other steps that you can take to minimize a bee's risk of direct exposure to neonics or any insecticides include **NOT APPLYING THEM**:

- AT ALL;
- during bloom;
- in the day when pollinators are active;
- when temperatures are high;
- at a time of day or night that could cause bees to be exposed to residual toxicity;
- until nests of managed bees (i.e. honey, mason, and leafcutter) have been moved to a safe location.

Perhaps the single most effective way to minimize pollinator exposure to pesticides is to not use them. Most home gardens and landscapes can be managed without pesticides. Common sense biological and cultural practices go a long way towards controlling pests and maintaining plant health. The University of Idaho's Green Thumb series and Homeowners Guides provide a wealth of information on bio- and cultural-controls for controlling garden pests or protecting flowering plants, and many other handbooks and outreach material are available on this topic as well.

Some neonic product labels provide links to informative pages on pollinator protection such as that found at xerces.org/pollinator-conservation/



member yet, but might be interested in becoming one? Instead of recycling this issue of your "Sierra Club Palouse News" after you read it (and after you've noted our outings and events on your calendar), **PASS IT ALONG!** The executive committee is setting a friendly goal of 25 new members in 2023. Help us reach it!

Do YOU know someone who is not a PGSC

Palouse Group Sierra Club www.facebook.com/pgsc1 palouse.sierra.club@gmail.com

Printed on 100% post-consumer paper stock

Non-Profit Organization US Postage PAID Permit No 4 Colton, WA



Palouse Group Sierra Club POB 9932 Moscow, ID 83843

An Exquisite Snow Outing - Palouse Group of the Sierra Club and Friends of the Clearwater by Mac Cantrell

This winter's January snow outing at the Palouse Divide Nordic Trail System was a crisp, calm, sunny day graced with fresh snow and temperatures *just* cold enough to keep that snow in fine shape. About 25 attended — some snowshoeing and some skiing — out to Lane's Lookout for a leisurely lunch with big views. After lunch we split up, with one group heading a bit further toward Bald Mountain and the other doing a mellow ski back to the Palouse Divide Lodge.

About 20 stayed for dinner at the lodge followed by a couple of talks, discussion, and hanging out. We discussed timber sale plans for the North Fork of the Clearwater country and an area

next to where we had skied that day; as well as aspects of the Inflation Reduction Act passed in August that will help our country reduce fossil fuel use and increase use of renewable energy sources.

I want to give an enormous thanks to those who helped this outing happen — our local PGSC group volunteers, the Friends of the Clearwater volunteers, and the Palouse Divide Nordic Club. The Nordic club volunteers' tremendous amount of hard work grooming the trails this winter gave us excellent tracks that weekend — and many others times throughout the winter.

We're planning another snow outing for next winter and hope you all can make it!

