



Palouse Prairie Foundation

Promoting preservation and restoration of the Palouse Prairie ecosystem

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Palouse Prairie Flyer

Newsletter of the Palouse Prairie Foundation Spring 2023

Springtime on the Palouse



April snow flurries (photo: Tom Besser)

Spring can be slow arriving on the Palouse but beneath the fresh snow new growth has started!

Here's what's included in this edition of your newsletter:

- [Palouse Prairie Pollinator Plant kits – reserve your kit now!](#)
- [Palouse Prairie pioneers: Meet Dave Skinner](#)
- [Featured weed: rush skeletonweed](#)
- [New UI student group: Society for Ecological Restoration](#)

Bee Friendly and Buy a 4P kit

By Joan Folwell



Wyeth's buckwheat *Eriogonum heracleiodes*, Blanket flower *Gaillardia aristata*, Showy milkweed *Asclepias speciosa*, Silky lupine *Lupinus sericeus*, and Prairie smoke *Geum triflorum*, all included in the 4P kits. (photos: David Herbold)

I never met a pollinator that I didn't like! That includes insects such as bees, butterflies, beetles, moths, flies, and wasps. Here in the Palouse region, it is important that we supply our native pollinators with the native plants of this area. The plants' needs and the pollinators' needs were mutually met as they evolved together over time. Some of our native pollinators are associated with specific native plants such as the death camas bee (*Andrena astralagi*) with the death camas plant (*Toxicoscordion venenosum*); other bees are generalists. In truth, native Palouse Prairie plants benefit all pollinators – both native and non-native.

The Palouse Prairie Foundation is excited to offer our **Palouse Prairie Pollinator Plant (4P) Kits** to the public. Each kit contains twenty native forbs of nine different species in 10-cubic-inch tubes, and will fill approximately a 4' x 6' foot area. It is important to furnish pollen and nectar to pollinators throughout the growing season. To that end, each kit has three species that bloom in the spring (April-May), four species that bloom in the summer (June - July) and two species that bloom in the fall (August -September). The plants include a variety of shapes, textures, colors, and heights.

There are many advantages for gardeners to use Palouse natives. Native forbs are drought-tolerant, are low maintenance, can provide food and habitat for many insects and for pollinator larval stages, and are beautiful additions to your gardens. They also uphold the important principle of keeping the biodiversity of this region strong.

These kits will be available in the middle of May. The cost is \$25.00 (**check or cash only accepted**) to be paid at the time of pickup. You may learn more about the sales or reserve a kit by emailing secretary@palouseprairie.org and providing your name, phone number or email, and city or town. You will be contacted in advance of the sales and pickup venues with information about their dates, times, and locations.



Missouri goldenrod *Solidago missouriensis*, another 4P kit plant species. (photo: David Herbold)

Palouse Prairie pioneers: Meet Dave Skinner

By Jacie Jensen

In 2001, six local citizens gathered to discuss their concern about preserving the remaining fragments of Palouse Prairie. Present were Dave Skinner, Trish Heekin, Robin Jenkinson, Bill French, Loring Jones, and Karen Gray. For almost a year the small group questioned whether preserving and restoring Palouse Prairie was even feasible due to its fragmentation and the limited research and application knowledge on its plant species and ecosystem.

A founding member said, “We knew Dave Skinner was the rock on which we could succeed”. On July 3rd, 2002, the group organized the Palouse Prairie Foundation (PPF) to promote the preservation and restoration of native Palouse Prairie ecosystems, to encourage local seed production and to provide leadership and consultancy for restoration projects.



Dave Skinner at the Whelan Cemetery Palouse Prairie remnant. (photo: David Hall)

Dave Skinner’s agronomy knowledge¹, keen observation skills, patience and attentiveness jump-started a Palouse Prairie restoration revolution. He took the PPF purpose statement and turned it into action with USDA-NRCS Pullman Plant Material Center sponsored research and papers, co-produced PPF educational materials, and in his free time consulted on restoration projects and mentored people in conservation and agricultural occupations.

Here is a sampling of Dave’s impact:

- From Fall 2002 until Spring of 2007, Dave conducted research to evaluate the planting time and survivability of 16 perennial forbs species and 2 grass species native to the Inland Northwest.² In 2003 Dave published the second³ Native Plant Propagation Protocol paper for a Palouse Prairie forb and continued researching and publishing propagation data until 2009 for a total of 61 native forb species and 14 native grass species³.
- Beginning 2002, Dave consulted on the Maynard Fosberg Palouse Prairie reconstruction project. Because very little native seed was available at that time, Dave said “If you do not have enough seed, plant plants.”
- In late 2003 a founding PPF member asked Dave to consult with local crop producers on the process of native seed production. With his mentoring, native Palouse Prairie seed production started in 2004.
- To inform landowners and homeowners how to establish native grasses and wildflowers, he co-wrote the first edition of *Palouse Prairie Restoration* in 2003-2004⁴.

- The large collection of data compiled over Dave’s career became the foundation of the *Palouse Prairie Field Guide* published in 2016⁵.

Dave Skinner, with a small group that shared a conservation vision, started a Palouse Prairie restoration revolution. Dave’s hands have touched every Palouse Prairie restoration and re-establishment project and his influence will extend into the future because he turned a purpose into action.

References

1. Dave Skinner graduated from Washington State University in 1970 with a Bachelor of Science degree in agriculture, specializing in soils. He joined the Peace Corps and served in Iran from 70-72 working on agricultural projects. After his travels he farmed outside of Colfax before starting a 30-year career with the [USDA NRCS Plant Materials Center](https://www.nrcs.usda.gov/plantmaterials/wapmctn9706.pdf) in Pullman. He was a first-class botanist specializing in native plants of the Palouse.
2. Pamela L. Scheinost, David M. Skinner, Mark E. Stannard. 2010. *Evaluation of the planting time and survivability of 16 perennial forbs species and 2 grass species native to the Inland Northwest*. Technical note, Plant Materials No. 20. USDA-NRCS. Pullman. WA. <https://www.nrcs.usda.gov/plantmaterials/wapmctn9706.pdf> (Accessed 4/24/23).
3. Scott M. Lambert. 2001. *Propagation protocol for production of Bareroot (field grown) Camassia quamash plants*. USDA NRCS - Pullman Plant Materials Center Pullman, WA. In: Native Plant Network. URL: <https://NativePlantNetwork.org> (accessed 2023/04/24).
4. David M. Skinner, Bertie Weddell, Mark Stannard, *Palouse Prairie Restoration*, 2003. NCRS. <https://www.nrcs.usda.gov/sites/default/files/2022-09/Palouse%20Prairie%20Restoration.pdf>. (Accessed 4/24/23).
5. Dave M. Skinner, Jacie W. Jensen, Gerry Queener. 2016. *Palouse Prairie Field Guide: An Introductory Guide to Native Plants, Agricultural Crops and Invasive Weeds for the Curious*. Thorn Creek Native Seed Farm.

Dave Skinner: A personal reminiscence

By Jo Bohna

I met Dave Skinner at the initial meeting of Palouse Prairie Foundation. I had seen him at various other events such as Idaho Native Plant Society and Audubon since my move to Moscow from Prescott, AZ. He was born and raised in Washington, got his BS from WSU, worked his entire 32-year career at the USDA NRCS Plant Materials Center on the corner of Airport Road and the Moscow-Pullman highway. Except for three years in the Peace Corps in Iran helping with grain growing and some kicking around east Africa, Dave spent all his time right here on the Palouse.

He was given the task of investigating native Palouse Prairie plants and he took this on with a mighty spirit. Off he went into the eyebrows and hilly wheat fields and old cemeteries looking everywhere for any scrap of unplowed land he could find that might have a few seed-bearing plants to build his seed stock. Eventually he gathered and sorted and planted out enough to fill half an acre of rows of the lovely native varieties to begin filling first paper envelopes, then bigger and bigger envelopes until he had bags and bags of native seeds collected over the years. He shared these seeds with anyone he thought would put them to good use.

Each year he had student workers who helped with the field work, putting headers on combines, running tractors around fields, setting out plots for grad students, watering and cold framing and planting racks of cones full of sticky geranium, arrowleaf balsamroot, and blanket flower. Look to the Palouse Prairie Field guide he and Jacie Jensen and Gerry Queener put together in the last 6 weeks of Dave's life for the full list.



Dave working on Paradise Ridge Latah County ID. (photo: Jacie Jensen).

Rush skeletonweed (*Chondrilla juncea*)

By Shelley Chambers Fox

Rush skeletonweed is listed as a noxious weed in both Washington and Idaho. It infests agricultural fields and rangeland across the west. It is unwelcome wherever it occurs because its deep roots compete with crops for water and nutrients, and it displaces native species from rangeland. The Extension office estimates that millions of acres of the Pacific Northwest are infested with rush skeletonweed, and a drive through the countryside reveals that it has certainly arrived in the Palouse.



Left: Basal rosette stage. Middle: Skeletonweed-infested Palouse Prairie remnant in March. Right: Mature plant with flowers. Photos by Shelley Fox (left, middle) and iNaturalist (right, uploaded by sgene, no rights reserved).

In the spring, rush skeletonweed first appears as a basal rosette with lance-shaped, shallow-lobed leaves that resemble dandelion. As it grows, it develops wiry, green stems that are nearly leafless and can measure between 1 and 4 feet tall. The lower 4 to 6 inches of stem are covered with downward pointing hairs. If broken, the stems and leaves will exude milky sap. Small (1/2-inch diameter) bright yellow flowers develop in summer and bloom into fall forming small, oblong, greenish brown seeds that are attached to a white pappus that disperses them with the wind. However, studies indicate that most local population increase is due to new plant development from lateral roots as small as 1/2 inch and as deep as 2 feet. Rosettes may also appear in the fall and survive the winter. There are 3 major variants in the Northwest that differ somewhat in their response to control measures. (See Table 1 from Reference 3)

Management of well-established rush skeletonweed requires sustained attention to the characteristics of the infestation and well-timed application of varied approaches. Initially the land manager should seek to prevent seed production. Hand pulling or digging should be employed when the soil is still moist primarily for new infestations before the plants have well-established lateral roots that can break off and form new plants. Mowing and grazing can be used several times during the growing season before flowering to prevent seed production. If the infested terrain is suitable, cultivation will weaken skeletonweed sufficiently such that subsequent seeding with rhizomatous, perennial grasses or legumes can suppress vigorous regrowth. Burning has been found to permit expansion of rush skeletonweed and is not recommended.

Chemical control is most effective when applied to rosettes in the fall and spring. Recommended herbicides include 2, 4-D, dicamba, aminocyclopyrachlor + chlorsulfuron (Perspective), clopyralid (Transline or Stinger), aminopyralid (Milestone) and picloram (Tordon). The Pacific Northwest Weed Handbook notes that 2,4-D inhibits above-ground growth but will not prevent new plant development from root buds. Aminopyralid, and to some extent, clopyralid can persist in straw, manure and compost, and picloram can persist at toxic levels in soil for more than a year after application at labeled rates. Please see references 3 and 4 or product labels for details on the use of herbicides.

Four biological control agents that are natural enemies of rush skeletonweed have been tested and found helpful in the management of established populations of the weed. They include rust fungus (*Puccinia chondrillina*), gall mite (*Aceria chondrillae* aka *Eriophyes chondrillae*), fly or gall midge (*Cystiphora schmidtii*), and root moth (*Bradyrrhoa gilveolella*). Your county extension agent or noxious weed control

board can provide more information about using biological control agents in rush skeletonweed infestations. Areas infested by rush skeletonweed should be frequently monitored for new plants to and a rapid effective response chosen based on plant size, density, terrain, soil conditions, and surrounding plant community.

Several practices can prevent the introduction of rush skeletonweed into new areas. Landowners should limit use of motorized equipment in infested areas, particularly when seeds are present, and clean equipment before entering un-infested areas. Animals should not graze on rush skeletonweed when the plants have seeds. Weed seed can be introduced into new areas through contaminated soil, hay, seed, manure, and feed. Minimize soil disturbances, and if the soil must be disturbed, seed immediately with desirable plant species.

References

1. Timothy Prather, Albert Adjesiwor, and Don Morishita. Idaho's Noxious Weeds, 10th edition, University of Idaho Extension. <https://invasivespecies.idaho.gov/plants/>. (Accessed 4/24/23).
2. Washington State Noxious Weed List. <https://www.nwcb.wa.gov/printable-noxious-weed-list>. (Accessed 3/12/23).
3. Stephen Van Vleet, Eric M. Coombs, Rush Skeletonweed (*Chondrilla juncea*), Pacific Northwest Extension, PNW465, <https://pubs.extension.wsu.edu/rush-skeletonweed>. (Accessed 6/27/22).
4. Pacific Northwest Weed Handbook, MISC0049. <https://pnwhandbooks.org/weed/problem-weeds/skeletonweed-rush-chondrilla-juncea>. (Accessed 3/21/23).
5. Herbicide Carryover in Hay, Manure, Compost and Grass Clippings, NC State Extension Publication. <https://content.ces.ncsu.edu/herbicide-carryover>. (Accessed 9/29/22).

New UI student group: Society for Ecological Restoration

By Garret Homer

President, Society for Ecological Restoration – UI Chapter

In 2022, less than 1% of the native Palouse Prairie of Eastern Washington and North Idaho remained. Agriculture now dominates the landscape, making the unique Palouse Prairie ecosystem one of the most endangered in the world. The Giant Palouse Earthworm has been only rarely seen in the last thirty years, and many residents of the Palouse will go their entire lives without ever knowing what Palouse milkvetch or Palouse goldenweed look like. In the United States, half of our waterways are too polluted to swim, fish, or drink the water, and most of our lakes and estuaries are feeling the strain of cultural eutrophication. Our world is in pain. It is sick, and nobody seems to want to listen to the doctor.

The heartbreaking reality of the natural world's condition formed the backdrop for the start of my education at the University of Idaho. After working for nearly a decade in sales, I found that the only peace I could find was in the mountains, but the mountains were bleeding. Fires burned out of control, sterilizing the landscape for what seemed like an eternity in all directions. I knew I had to do something, but I didn't know what. It wasn't until a brief visit to Moscow in the Summer of 2020 that I began to see the road ahead of me.

I moved to Moscow 5 months after my first visit with vague ideas of dedicating my life to restoring the health of America's wildlands and preserving something of the natural world for future generations. I didn't know much about what that meant, but I knew that it was what I wanted to do. The University offered a path towards accomplishing that goal, so I discarded my previous life and began a new one.

I first heard the term “Restoration Ecology” in Principles of Ecology, an introductory class taught by Professor Charles Goebel. I was immediately captivated by the concept, and finally had a proper ‘industry appropriate’ term to call my ambitions. I also began to realize how lacking the University was in the world of ecological restoration. The University offers a restoration certificate, an area of emphasis for one Environmental Science degree, and a non-thesis master’s program that are focused on ecological restoration. Beyond that, it was simply a footnote at the College of Natural Resources.

I wasn’t the only one to recognize this lack of attention paid to restoration by the University. By the Fall of 2022, I had gathered a dozen other students that were all

enthusiastic and dedicated to the science, practice, and *idea* of ecological restoration. By September, we were meeting regularly to discuss project ideas. After discussions with Dr. Goebel, on September 26th, 2022, our club formally elected its inaugural class of officers, and I took on the challenge of leading our new club in its first year. We submitted our club application to the Student Union, obtained recognition, and set off to make a difference in the natural world around us.



SER club membership (photo: Garret Homer)



Down and dirty in Paradise Creek (photo: Garret Homer)

We ended up gathering a small but dedicated group of individuals who are eager and enthusiastic to gain hands-on experience with the community. Although we’ve only been together as an organization through the cold months, our members have not hesitated to strap on our waders and dip in to freezing water to remove garbage and debris from our waterways.

With official recognition from the University and the Society for Ecological Restoration, our club started out by doing smaller tasks like cleaning plastic waste out of the streams in Moscow, reduce invasive weeds such as Canada Thistle, and inviting guests to speak to us about local restoration projects. As we began to get our bearings straight, we determined that our purpose as a club is to propose, design, and implement our own restoration projects. We looked around the Moscow area for potential sites and eventually we found what we hope to one day call Paradise Prairie.

The site sits on the eastern edge of the University of Idaho campus; a weed patch that has been empty and unused for years. While the site has dense patches of rush skeletonweed, cheatgrass, and the odd curly dock, it also has several native grasses, an abundance of forbs, and even Palouse milkvetch. The presence of natives on this highly degraded site gave us hope that it could one day become a prime and highly visible example of the native Palouse Prairie, right adjacent to downtown Moscow.



Restoration target on the UI campus: weeds now but Palouse Prairie again someday? (photo: Garret Homer)

Our vision for this site is to create a long term, student and community driven restoration site that might serve as an accessible example of what the Palouse Prairie looks like. We hope to establish a monitoring framework that can be taken up by future generations of our club to maintain the health and trajectory of the site for as long as is needed to create a resilient ecosystem. We want to create a seed source for native plants that can help proliferate the endemic species of the Palouse throughout Moscow, rather than noxious weeds and bare ground. We would like to create a space where the community and students can meet and discuss the Prairie and learn about it firsthand. Our goal for Paradise Prairie is ambitious, but fully within our power to accomplish.

While we are still ironing out the details of the project, we hope to begin work on the initial phase of restoration in the next year. Our hope is that the Paradise Prairie serves as a flagship project for our club, and as a symbol of what restoration can look like on the Palouse. With walking paths and meeting spaces, we are designing it with the community in mind. We hope that it can serve as a three-way bridge between the University, Moscow, and the land, reconnecting people, place, and nature on the Palouse. Restoration is more than rebuilding the structure and function of an ecosystem. Without restoring the connection that we, as human beings, have to the land, the work we do is only kicking the can down the road.

As a club and as individuals, we strive to restore the landscape, and to restore the deep connections that we have lost to the landscape, to foster long term stewardship of the Palouse Prairie. We have a long way to go, but we truly believe that the foundation we lay now will be an important contribution to the future of the Palouse.

References

1. Society for Ecological Restoration <https://www.ser.org/>



2023 Palouse Prairie Foundation Membership

PRESERVE – PROTECT – PROMOTE

Why should you support the Palouse Prairie Foundation with your 2023 membership?

In 2022, the Palouse Prairie Foundation:

- Conducted a weeding party at Whelan Cemetery with the help of our great volunteers; continued the removal and surveillance of invading lilac bushes partially funded by a Washington Native Plant Society grant; supported the successful award of a three-year grant to the Palouse Conservation District to continue maintenance of the on-site Spalding’s catchfly (*Silene spaldingii*) population.
- Continued to develop the John Crock Native Plant and Pollinator Garden along the Latah Trail by controlling weeds; planted 225 native forbs and scattered native plant seeds mostly donated by Thorn Creek Native Seed Farm with the efforts of Elisabeth Brackney and other board members and volunteers; monitored the development of previously planted shrubs and native grasses.
- Awarded a \$1,000 mini-grant to The Phoenix Conservancy that assists their native seed collecting and growing program. The seeds are planted in their greenhouse and will provide forbs for native planting sites in Pullman.
- Provided access to University of Idaho graduate students and researchers studying the interaction of pollinating insects with native plants at Whelan Cemetery.

Your support of PPF is a direct benefit to **YOU**:

- Receive invitations to local-area field trips.
- Get direct access to the expertise and experience of other restorers and protectors of the Prairie.
- Participate in the activity of your choice to help preserve this important ecosystem.
- The Palouse Prairie Foundation is a 501(c)(3) non-profit organization, and **donations are tax deductible.**

Email messages are the primary way that members are notified of all events and news. Please pay [online](#) via credit card or PayPal, or provide the membership information requested below and send it with your payment to:

Palouse Prairie Foundation, P.O. Box 8952, Moscow, Idaho 83843-1452.

THANK YOU!

Membership Information

Name	_____	<input type="checkbox"/> Student	\$10
Street Address	_____	<input type="checkbox"/> Individual	\$20
City, State, Zip	_____	<input type="checkbox"/> Family	\$35
E-mail Address	_____	<input type="checkbox"/> Lifetime	\$250
	_____	<input type="checkbox"/> Donation	\$ _____
		TOTAL ENCLOSED	\$ _____

I'm interested in: John Crock Garden Whelan Cemetery Other _____