Planting for Pollinators



Created by Kammy Kern-Korot West Multnomah SWCD (rev. Lynda Boyer, Heritage Seedlings & Liners 11.13.18)

Important Role for People Who Love Plants (like Master Gardeners) © Education and Advocacy Gain an <u>awareness</u> of the <u>role</u> your regional native plants play in our gardens, the suburban/rural interface, agriculture lands, and remnant habitats

WHAT YOU CAN DO

ECOLOGICAL CANVASES

- Pastures & Meadows
- Woodlots & Back-40
- Our yards!!!!!
- Wild lands
- Roadsides
- Office parks & Malls
- City and County Parks
- City side walks and greenspaces

ECOLOGICAL WARRIORS

- Landowners
- Gardeners!!!!
- Horticulturalists
- Restoration Professionals & Land Managers
- Landscapers
- Transportation Depts.
- Teachers
- Community Associations

THE XERCES SOCIETY GUIDE

Attracting NATIVE POLLINATORS

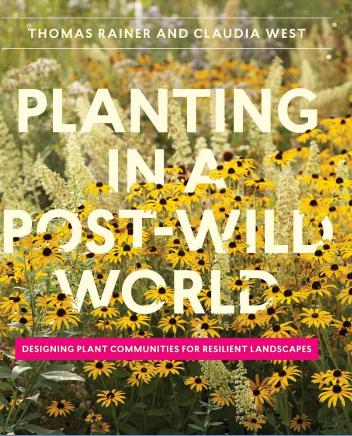
HOW YOU CAN DO IT

Protecting North America's Bees and Butterflies









What is a pollinator?



An animal that:

- Visits flowers and picks up pollen
- Distributes the pollen to another part of the flower, or a flower in a different location
- Causes fertilization which produces fruit and/or seeds

Examples of Pollinators

- Bees are the most important Pollinator in North America
- Butterflies
- Birds (hummer)
- Moths
- Beetles
- Flies
- Bats



Photo: Jack Dykinga





Why Protect Pollinators?

- 90% of flowering plants need an animal pollinator for reproduction
- 1/3 of food crops (1 in 3 bites you eat)
- ~\$20 billion agricultural industry in North America

Honey bee colony collapse; we need native bees

Wildlife food - 25% diet of birds & mammals







Native Bees vs. Honey Bees

- Hundreds of species pollinate food crops
- Very few are known to sting
- More efficient pollinator of certain species
 - Apple, cherry, blueberry, cranberry, tomato
- Forage earlier & later in the day; in colder & wetter weather
- Insurance against honey bee decline (50% since '50)
- Support more native plants & habitats





Native bees / pollinators need our help





- While the decline of European honey bees garners media attention, native bees are on the decline at an alarming rate (e.g. Western Bumble & Franklin's) due to multiple factors
- Butterflies are also at risk) due to loss of host plants (e.g. Taylor's Checkerspot & Fenders Blue
- Bumbles <u>especially</u> need habitat corridors; fragmented habitat makes them susceptible to inbreeding since travel only short distances from nest

Bee Stats



- Nationwide there are ~4,000 species of bees (45 bumble bee species)
- 600-800 bee species native to Oregon
- 150 + bee species in the Willamette Valley
- 18 Bumble bees in the Willamette Valley
- Bumble bees are getting hit hard due to climate change since they have temperature toleration limits
- Pollination timing is also getting affected due to earlier bloom times and no pollinators yet to pollinate

Oregon Bee Project https://www.oregonbeeproject.org/

- "The State of Oregon is dedicated to maintaining pollinator species vital to the food supply and the natural environment around us".
- Oregon Bee Atlas ODA, OSU & citizen scientist (like the Master Gardeners Entomology Group) working to collect and identify Oregon's native bees ☺ ☺.
- Oregon Flagship Farms (Heritage is one of them

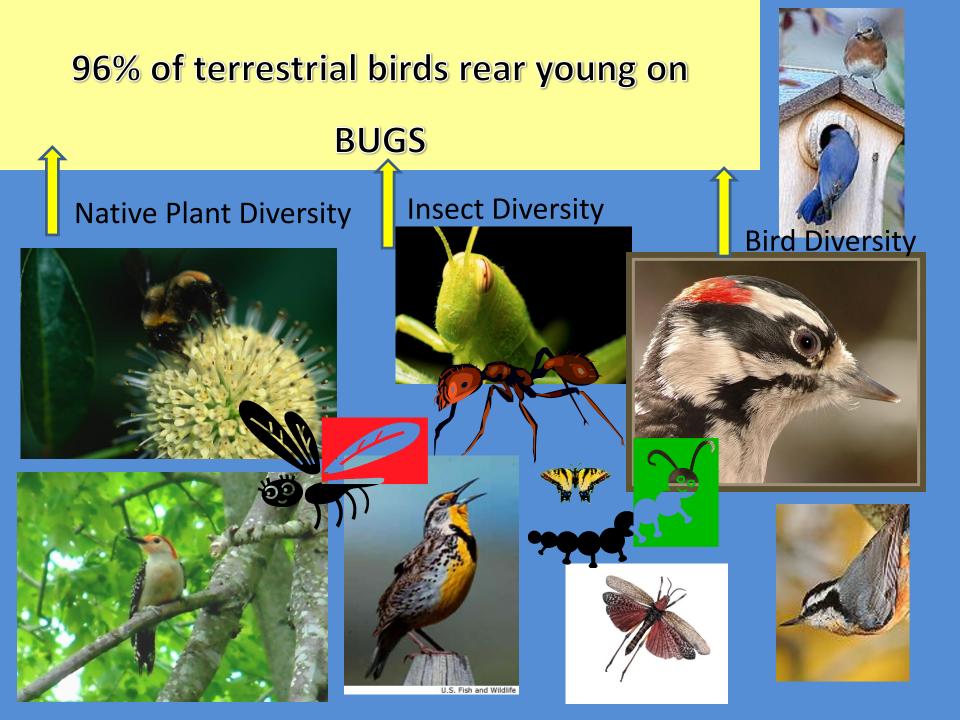
 are recognized for providing pollinator habitat and safe use of pesticides in farming practices.

Why native plants?

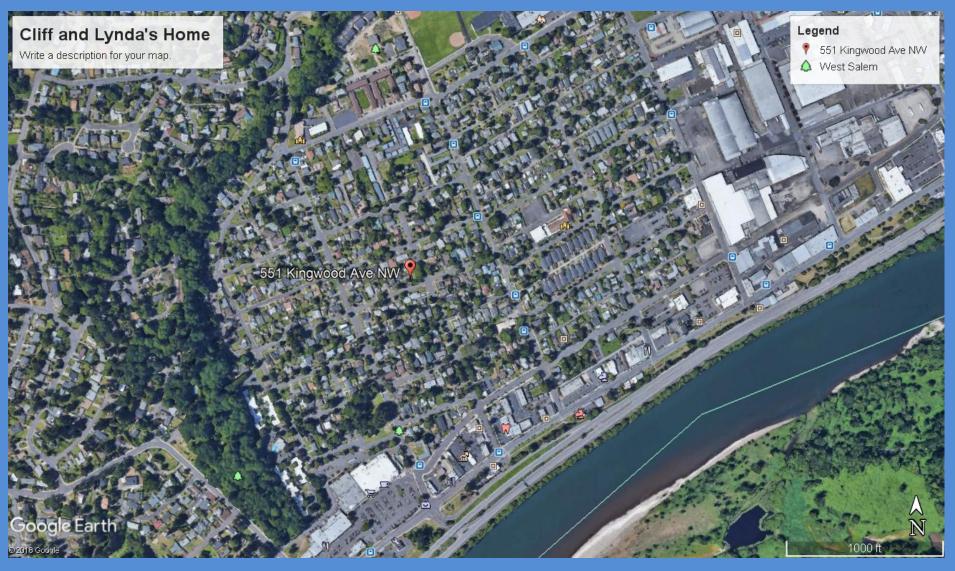
- Native plants are <u>4 x more likely</u> to attract native bees than nonnative plants (evolved together).
- Planting natives to attract native pollinators builds <u>support</u> for native plant communities in the landscape.
- Specialists such as Monarchs need their host
- Increases <u>diversity of birds</u> in the landscape.







Our Urban Home in West Salem still a haven of pollinator diversity





2007

Ecological desert with nary a bee, butterfly, or beetle to be found (yes, the arborvitae were the first to go!!!!)



2018

Garden about 50% Oregon natives - we planted for pollinators and the former desert literally became an OASIS

Early April

*Fawn lily

*Common camas

Late-April

*Western buttercup

*Large-leaved avens

*Tall camas





Early-May

- *Tall checkerbloom
- *White camas (wild colorform from Benton County)
- *Oregon geranium
- *Ookow
- *Large-leaved avens (blooms most of summer if deadhead)

Early-May

- *Straight-beaked buttercup (amazing garden plant)
- *Douglas' meadowfoam (amazing garden plant)
- *Large-leaved avens (yup, it spread around so keep it in check with...more plants!)



Mid-May

*Apple tree (not-native but ya gotta eat and the birds love perches!) *Fringecup (shaded by plants in foreground)

Fern-leaved lomatium (also a good perch and structural interest in fruit)
*Green-flowered alumroot (bee magnet and structural interest in fruit)

Early-June – Layered structure
*Mix of Oregon natives, midwestern natives, and
ornamentals
*Slim-leaf onion and
polominium (Jacob's ladder)
along the border



Family Portrait



<u>Background to foreground:</u> Western yarrow, Oregon geranium, Evergreen huckleberry (food AND native) Alumroot, Slender cinquefoil; Avens, native Seal-heal, Slim-leaf onion, Spiked primrose (annual)



Early July

Note: the Willamette Valley is a drought habitat system so most of our native perennials bloom-out by the end of July

Incorporation of mid-western perennials and late-blooming non-native perennials keep the garden beautiful AND provides critical resources for pollinators



ID the bees in your garden!

The Meadowscaping Handbook WMSWCD and https://xerces.org/bumble-bee-identification/ (or make friends with an entomologist like I did! ©)

G – Pollinators That May Be Found in Urban Portland Gardens *



^{*}Adapted from Appendix A of the Maritime Northwest Citizen Science Monitoring Guide, Xerces Society, 2014 (unpublished) / corroborated by Mace Vaughn, personal communication (February 2015)

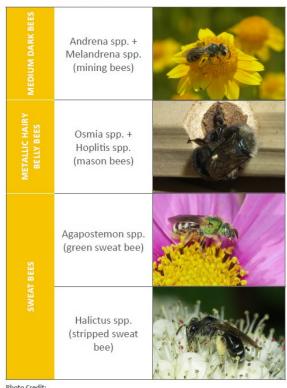


Photo Credit

Left Column (top to bottom): Mace Vaughan, The Xerces Society; Kammy Kern-Korot, WMSWCD; Mace Vaughan; Mace Vaughan Right Column (top to bottom): Mace Vaughan; Mace Vaughan; Matthew Shepard, The Xerces Society: Mace Vaughan



Bombus melanopygus on polmonium late-April





Bombus sp. aka "lovely" on white camas







Douglas' Meadowfoam/Poached egg plant

Oh My Goodness a pollination winner! (collect the seed and share)





Carpet beetles OK in garden 😊

Calliphoridae sp – fly that is an important early pollinator









Bee Types and Plant Niches – mix it up!

- Generalists (like bumbles) depend on succession of flowers from early spring (queen emerges) until late summer (when colony dies)
- <u>Specialists</u> collect pollen from only 1 group of plants (e.g. genera of <u>long-horned bees</u> on cucurbits family or sunflower family)
- <u>Cuckoo bumble bees</u> are nest parasites; bioindicator of healthy host bee population
- <u>Short-tongued</u> (shallow flowers like aster, carrot family) vs. <u>Long-tongued</u> (favor deep flowers like penstemon)
- Small dark <u>sweat bees</u> like exposed, compacted soil, e.g. driveway cracks; extremely common







Bee Activity & Life Cycle



- Early emergergents like <u>mining bees</u> do huge amount of spring pollination
- New queen bumbles make new nest and lay eggs in spring; (4-5 weeks first worker bees emerge then she continues to build the colony all summer)
- Mason bees active spring or early summer (March June)
- Green sweat bees active in summer
- <u>Leaf-cutter bees</u> active early-mid summer

Native Bee Nesting

- About 70% nest in the ground
 - Solitary female excavates a tunnel, lays
 eggs, larva /pupa overwinter (include green sweat, long-horned, digger, and mining bees)
- Most other species nest in wood
 - Often use dead trees or downed wood
 - Holes made by beetles
 - Hollow stems (mason bees)- leave standing!
- Bumble bees
 - Might use abandoned rodent hole; under bunch grasses, brush piles, stumps
 - Colony might have a couple hundred worker bees

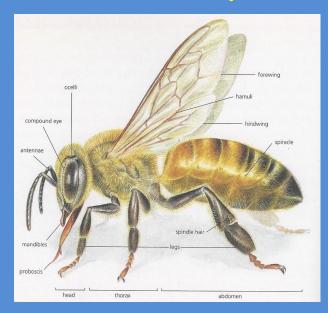
Native Bee Food & Habits

- Females use pollen as protein for young
- Male and females use nectar as carbohydrate (for flight & warmth)
- Exhibit floral constancy & fidelity

Are place based; distance travelled depends

on size

Bees vs. flies – <u>Flies</u>
 have 1 pair of wings,
 huge eyes, very short
 antennae



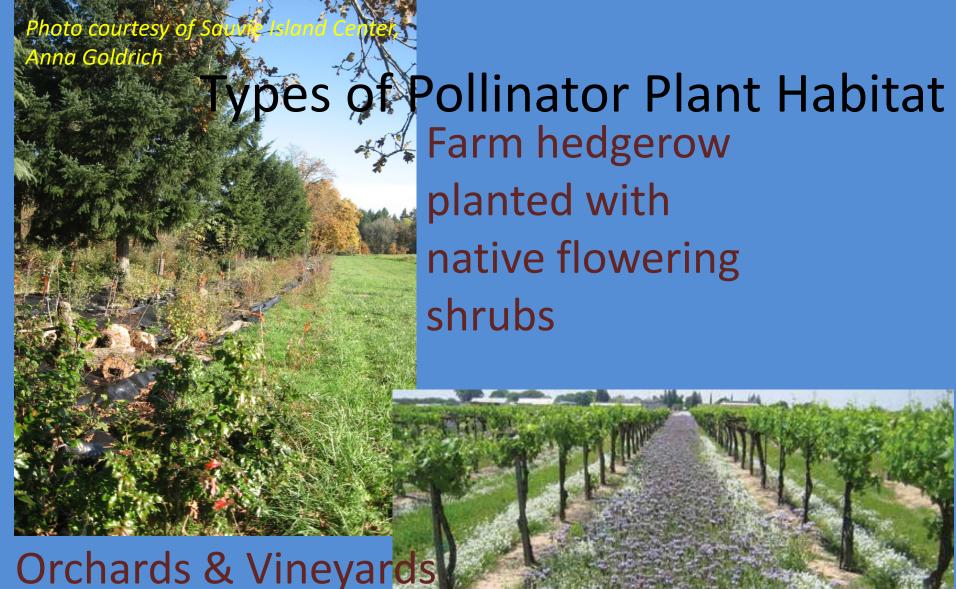
Principles of Pollinator Planting

- Provide the full range of bloom times from spring to late summer; 3+ species at any time (in gardenscapes, this may include mid-Western natives due to more late-summer bloomers)
- Pay special attention to early & late season
- Plant a diversity of plants: species, flower size, type and color (blue, purple, violet, white, yellow)
- Clusters of same species
- Gaps for bare ground

Designing your habitat (it does NOT have to be all native)

Different layers will attract different species and provide other benefits

- Trees insects, birds, nesting habitat
- Shrubs insects, birds, cover for wildlife
- Forbs/Wildflowers diverse insects, larva
- Bunchgrasses beneficial insect forage, larval growth in butterflies, nesting



Orchards & Vineyards planted with flowering cover crops



Residential yards with diverse and successional native plantings

Parking strips perfect for our
drought-tolerant
natives



Oregon white oak understory (the "back-40")





Grassy or weedy areas can be transformed into a haven for pollinators

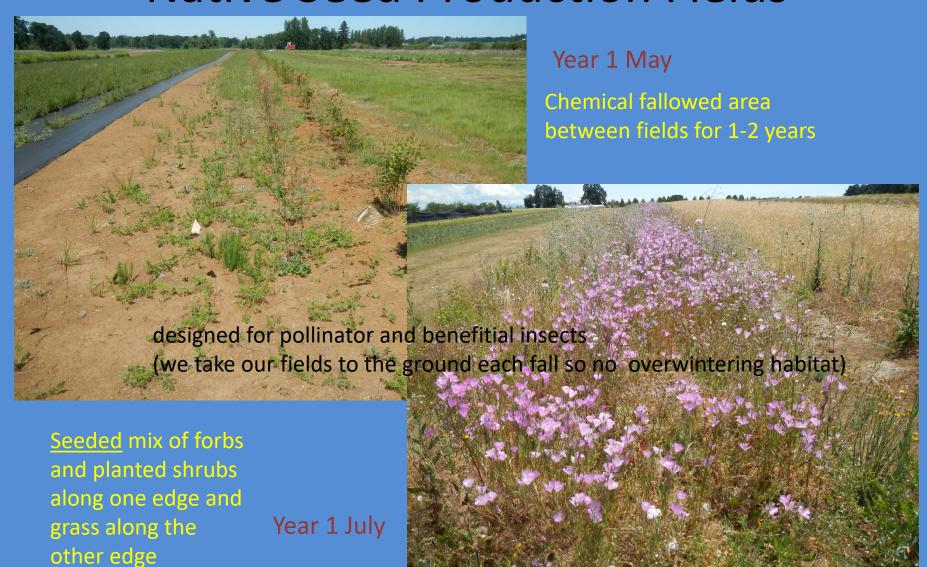


Designing a hedgerow Example of steps for all spaces no matter how big or how small





Pollinator Hedgerow Between Heritage Native Seed Production Fields





Year 2 June

Perennials coming on – isn't it pretty!



Year 3 June

Shrubs starting to bloom – yeah!

Species Selection

treat it like any garden planning process just with new goals in mind

- Consult lists re: what's beneficial; when in doubt, go native!!!!
- What are pollinators currently using?
- 3 species blooming throughout the growing season with diverse colors and shapes
- Adapted to site sun, moisture conditions (Appendix C - Meadowscaping Handbook)
- Aesthetically pleasing
- Size of plant when mature

Measure the area and decide how many plants and what kind?

- How good is the site preparation? (seed vs plants?)
- Shrubs: maximize space for forbs and grasses
 1-2 rows 4-5' apart in lines or clumped
- Container vs. bareroot shrubs
- Annual vs. perennial forbs
- Annual vs. perennial grasses
- Perennial plugs vs. seed (more cost effective but need a clean site)

Herbaceous Species for Meadowscaping

- Use <50% bunchgrasses per planted area to allow ample space for the wildflowers needed to cover three seasons of bloom times for pollinators. You may want to plant bunchgrasses more densely in certain areas to decrease maintenance, help combat weeds, decrease erosion after site preparation and provide pleasing aesthetic features year round.
- If the main goal is to provide ample pollinator forage and ground netsting spots, you can maintain some larger open spaces in your design. <u>The ideal mix in this case is < 25% bunchgrasses</u> (Xerces Society).
- A meadow planting palette dominated by perennial grasses and wildflower species (up to 75%) will increase the chance of establishment and resilience of your meadow compared to starting with a lot of annuals.

Meadowscaping Handbook Appendix D

Wildflower Bloom Time Chart Continued

Genus Species		Common Name	Color	Pollinator		Bloom Time								
		Common Name	Color	Host	Food	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Š	Ribes sanguineum	Red-flowering currant	Pink		Х									
	Rosa gymnocarpa	Baldhip rose	Pink	х	Х									
	Symphoricarpos albus	Snowberry	Pink	х	х									
	Rubus spectabilis	Salmonberry	Pink	х	х									
5	Rubus parviflorus	Thimbleberry	White		х									
SHRUBS	Gaultheria shallon	Salal	White	X	х									
S	Philadelphus lewisii	Mock orange	White		х		ie .							
	Holodiscus discolor	Oceanspray	White		х									
	Berberis aquifolium	Tall Oregon grape	Yellow	х	х									
	Salix spp.	Willow	Green	х	х									

^{*}Chart adapted from source material provided by Metro and The Xerces Society.

Desirable Shrubs



Indian plum



Oregon grape sp.

Important resources for queen bumblebees early spring



Desirable Shrubs



Salmonberry

Desirable Shrubs





Mock orange

Oceanspray



Nootka and Clustered rose

Red-flowering current

Desirable Shrubs





Meadowscaping Handbook Appendix D

D - Wildflower Bloom Time Chart

	Genus Species	Common Name	Color	Pollinator		Bloom Time								
				Host	Food	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	Aquilegia formosa	Red columbine	Orange											
	Collomia grandiflora	Large flowered collomia	Orange											
	Lilium columbianum	Columbia lily	Orange											
	Cardamine nuttallii	Spring beauty	Pink											
	Dodecatheon hendersonii	Broadleaf shooting star	Pink		Bumble Bees									
	Lithophragma parviflorum	Small flowered fringecup	Pink		X									
	Dicentra formosa	Bleeding heart	Pink	X										
	Plectritis congesta	Rosy plectritis	Pink		X									
	Dodecatheon pulchellum	Shooting star	Pink											
	Microsteris gracilis	Slender phlox	Pink		X									
	Allium acuminatum	Tapertip onion	Pink		X									
	Asclepias speciosa	Showy milkweed	Pink	X	Х									
ŝ	Clarkia amoena	Farewell to spring	Pink		X									
FORBS WILDFLOWERS)	Sidalcea campestris	Meadow checkermallow	Pink		X									
FORBS	Synthyris reniformis	Snow queen	Purple											
윤별	Cynoglossum grande	Pacific hounds' tongue	Blue		Х									
3	Viola adunca	Hookedspur violet	Purple	X										
Ŭ	Iris tenax	Oregon iris	Purple											
	Collinsia grandiflora	Blue-eyed Mary	Blue		X									
	Camassia leichtlinii	Large camas	Blue		X									
	Camassia quamash	Small camas	Blue		X									
	Dichelostema congestum	Ookow	Purple											
	Hydrophyllum tenuipes	Pacific waterleaf	Purple		X									
	Sisyrinchium idahoense	Blue-eyed grass	Purple											
	Prunella vulgaris	Self-heal	Purple		X									
	Brodiaea coronaria	Crown brodiaea	Purple		X									
	Micranthes occidentalis	Western mountain saxifrage	White											
	Micranthes integrifolia	Wholeleaf saxifrage	White											
	Fragaria vesca	Woods strawberry	White		X									
	Micranthes oregana	Oregon saxifrage	White											







Checkerbloom (Sidalcea spp.)



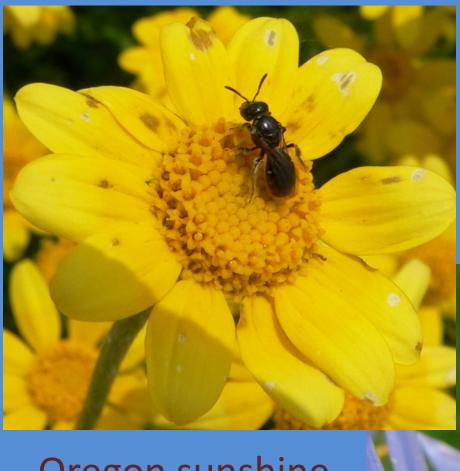
Cinquefoil (Potentilla spp).



Desirable Forbs

Biscuit root (Lomatium spp.)



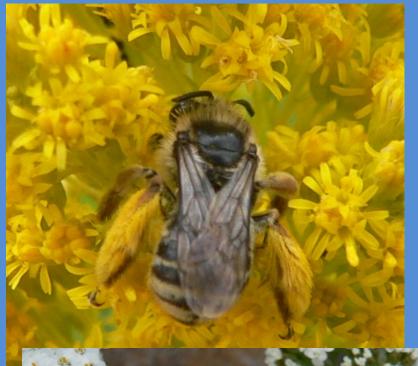


Desirable Forbs

Common and Tall camas

Oregon sunshine





Desirable Forbs but <u>only</u> for Larger Spaces - spread and/or tall statured

Western goldenrod

Western yarrow

Cow parsnip







Desirable Forbs but only for Larger Spaces - spread and/or tall statured

Narrow leaved and Showy milkweed



Gumweed

Native lupines



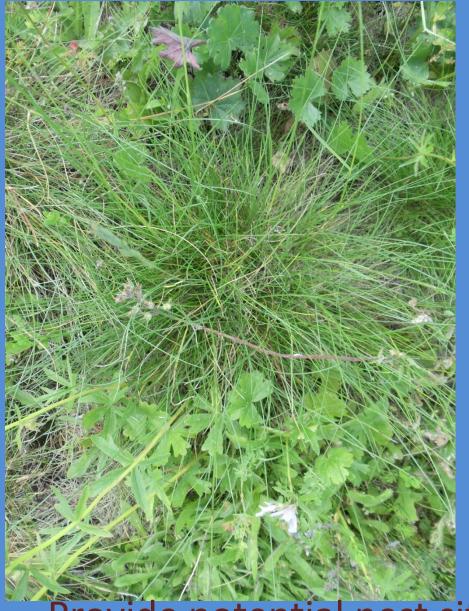
Rosy plectritis

MAINTAIN ON EDGES TO INCREASE DIVERSITY OF POLLINATION RESOURCES

Blue gilia

Outstanding Annuals





Native Grasses



Provide potential nest sites for bumblebees and overwintering sites for insects



Tufted hairgrass

Roemer's fescue



Other Beneficial Plants

- Lots of herbs: basil, borage, lavender, rosemary, marjoram
- Garden plants: lithodora, sunflower, hyssop
- Flowering fruit trees, raspberries / berries
- Cover crops, e.g. red clover
- Purple phacelia is an attractive cover crop; buckwheats (*Eriogonum*) are effective
- Veggies gone to flower



Other things you can do for pollinators

- Provide bare dirt and wood; don't over-mulch; especially in sunny spots, dedicate a dirt path
- Other nesting structure, e.g. pithy stems
- Use care with insecticides/neonicotinoids; look out for garden store products e.g. anti-aphid (amino chloropid) and treated nursery plants
- Avoid organic-approved pyrethrin and spinosad pesticides danger to bees; neem oil ok when not applied directly to bees; citrus may inhibit pollination
- Practice IPM; spray at night; avoid blossoms
- Minimize ground disturbance, tillage
- Provide shallow water
- Provide mud for mason bees (clay soil)
- Clean or replace artificial nest structures
- Leave existing habitat undisturbed

Keep it dirty and "messy"



Overwintering queen bumble bees are under the leaf litter

Nest sites - bare ground and wood



Bees seen entering or leaving holes in the ground are a sure sign of an active nest site. These mining bees were flying on a sunny, April morning. (Photograph by Matthew Shepherd.)



Beetle-tunneled snags, like this one, and patches of bare ground are important nesting sites for solitary bees. (Photograph by Matthew Shepherd.)

Photos: Farming for Bees

Nest sites

Our wind chimes!

Photos: Farming for Bees



Nest sites for tunnel-nesting bees can be made in many ways. They may be made from a stack of grooved planks (left photo). Nests also may be constructed from a bundle of hollow stems (right photo), such as bamboo (shown here), common reed, or teasel. (Photographs by Matthew Shepherd and Mace Vaughan.)

Monitoring

- Evaluate plant health
- Are they too crowded?
- Too many weeds?
- Do you still have bare dirt?
- Do you have species that insects are never using?
- Do you still have continuous blooming?
- What species can you add?
- Do you have bee groups missing?

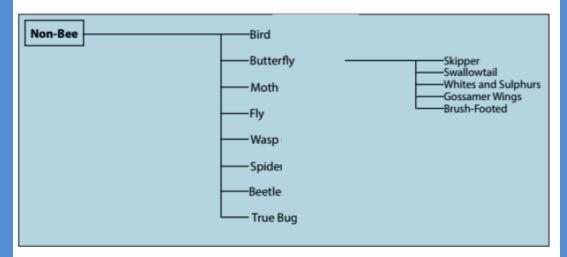
MARITIME NORTHWEST

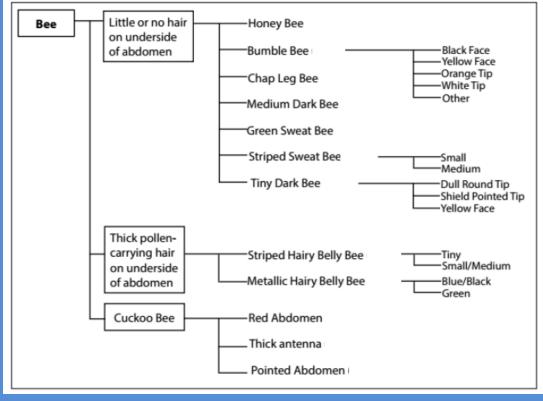
CITIZEN SCIENCE MONITORING GUIDE

BEES AND BUTTERFLIES

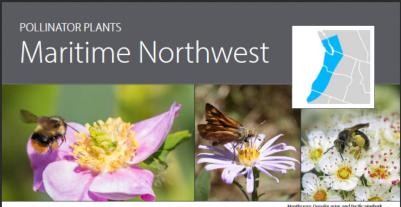


Key to Identifying Floral Visitors









The Maritime Northwest is a diverse geographic region, encompassing the coastline and coastal range of southern Vancouver Island, Washington, Oregon, and northern California; the grasslands of the Puget Trough and Willamette Valley; and ending on the eastern side of the Cascade Mountains. Large elevation and rainfall changes throughout this region have created diverse plant communities, ranging from the temperate rainforests of the Olympic Peninsula, the oak savannah grasslands of the Valleys, and the evergreen forests and subalpine meadows of the Cascade range.

Corresponding to this striking diversity of plant communities is an equally remarkable range of pollinators, including the once prominent Western bumble bee (Bombus occidentalis). Imperiled butterflies, including the Oregon silverspot (Speyeria zerene hippolyta), Taylor's checkerspot (Euphydryas editha taylori), Fender's blue (Icaricia icarioides fenderi), and Puget blue (I. i. blackmorei) butterflies also inhabit this region. As a group, these and other pollinators maintain healthy, productive plant communities, provide food that sustains wildlife, and play an essential role in crop

Providing wildflower-rich habitat is the most significant action you can take to support pollinators. Adult bees, butterflies, and other pollinators require nectar as their primary food source. Female bees also collect pollen as food for their offspring. Native plants, which are adapted to local soils and climates, are usually the best sources of nectar and pollen for native pollinators. Incorporating native wildflowers, shrubs, and trees into any landscape promotes local biological diversity by providing shelter and food for wildlife. Native plants are better adapted to regional climate cycles, do not need fertilizers, and are less likely to become weedy.

This guide features regional native plants that are highly attractive to pollinators and are well-suited for small-scale plantings in gardens, on business and school campuses, in urban greenspaces, and in farm field borders. In addition to supporting native bees and honey bees, many of these plants attract nectar-seeking butterflies, moths, and hummingbirds, and some are host plants for butterfly and moth caterpillars. With few exceptions, these species occur broadly across the region and can be purchased as seed or transplants. Please consult regional Floras, the Biota of North America's North American Plant Atlas (http://bonap.net/napa), or the USDA's PLANTS database (http://plants.usda.gov) for details on species's distributions in your area.



Our Bring Back the Pollinators campaign is based on four retrictples: grow polltnatorfriendly flowers, protect bee nests and butterfly host plants, avoid esticides, and spread the word. You can participate by taking the

Pollinator Protection Pledge and registering your habitat on our nationwide map of pollinator corridors.

THE XERCES SOCIETY

Pollinator Plants: Maritime Northwest

http://www.xerces.org/wp-

Great ideas for plants in our region:

http://www.pollinator.org/guides.htm



content/uploads/2014/09/MaritimeNorthwestPlantList web.pdf



GUIDELINES FOR PROVIDING NATIVE BEE HABITAT ON FARMS



Mace Vaughan, Matthew Shepherd, Claire Kremen, and Scott Hoffman Black

Farming for Bees: Guidelines for Providing Native Bee Habitat on Farms

Mace Vaughan, Matthew Shepherd, Claire Kremen, and Scott Hoffman Black; Xerces

www.xerces.org

(The background info in this talk is based heavily on info gathered from this document!!)

TECHNICAL NOTES

U. S. DEPT. OF AGRICULTURE Portland, Oregon

March 2008

PLANT MATERIALS No. 13

PLANTS FOR POLLINATORS IN OREGON

Kathy Pendergrass, Plant Materials Specialist, NRCS, Portland, Oregon Mace Vaughan, Conservation Director, Xerces Society, Portland, Oregon Joe Williams, Manager, NRCS, Plant Materials Center, Corvallis, Oregon







The purpose of this technical note is to provide information about establishing, maintaining and enhancing habitat and food resources for native pollinators, particularly for native bees, in Riparian buffers, Windbreaks, Hedgerows, Alley cropping, Field borders, Filter strips, Waterways, Range plantings and other NRCS practices. We welcome your comments for improving any of the content of this publication for future editions. Please contact us!

Plants for Pollinators in Oregon

Pendergrass, Vaughan, & Williams

Publication from NRCS

West Multnomah Soil & Water Conservation District,

http://www.wmswcd.org and click on "Resources"

Bees and Flowers: A Partnership for Life



A Partnership for Bees

Flowers sustain bees through their entire life cycle. Adult bees drink sugar-rich nectar to get energy for flight and warmth, and females collect nectar and pollen to provide for their offspring. The flowers that support native pollinators-bees, flies, butterflies, and birds-are disappearing from many mod-

In recognition of this, West Multnomah Soil & Water Conservation District and the Xerces Society for Invertebrate Conservation are working together to encourage the planting of native species for pollinator conservation in west Multnomah County.

Native plants can be incorporated into urban and rural landscapes to benefit pollinators and support the pollination needs of adjacent crops. West Multnomah SWCD provides free technical assistance on conservation practices to its constituency.





Pollination is critical for plant reproduction. Without it, plants will not produce fruit or seed. More than 70% of plants rely on an animal-in most cases, an insect-to move their pollen.

Bees are the most important group of pollinators. They are the primary pollinators for more than one hundred crops grown on this continent. Together, these crops are valued at over \$20 billion per year.

North America has 4,000 species of bees. The nonnative European honey bee is the most common managed pollinator. However, many wild native bees also pollinate crops. Native bees are often adapted to specific plants, resulting in more efficient pollination and the production of larger and more abundant fruits and seeds.

Bees are threatened by diseases and changes in the landscape that reduce habitat.



Providing Habitat for Bees

Pollinator-friendly flowers can be easily integrated into any landscape. Hedgerows that include flowering shrubs with overlapping bloom will provide pollen and nectar for bees throughout the growing season. Conservation plantings with a diversity of flowers offer food for bees (and the stable, untilled ground provides nesting opportunities for a range of bees). The vegetation in buffer strips, ditches, or roadsides can also support flowers, and thus bees.

Use native plants wherever possible, and try to have three or more

species in bloom at one time. Particularly important are flowers that bloom early or late in the season, helping bee populations grow at critical

Also try to provide nest sites in pollinator habitat. Patches of bare earth allow mining bees and others to excavate nests. Mason and leafcutter bees will occupied drilled wooden blocks or bundles of hollow stems. Bumble bees will nest under grass tussocks or in old rodent holes.

Simple steps will make a significant difference for our vital bees.

For more information about providing bee habitat, visit: www.xerces.org www.wmswcd.org

Willamette Valley Butterfly Garden

[species choices from N. American Butterfly

Association – Eugene Chapter]

Trees and Shrubs

Deciduous Trees
Bigleaf maple (Acer macrophyllum) [l]
Chokecherry (Prunus emarginata) [l] [n]
Oregon white oak (Quercus garryana) [l]
Red alder (Alnus rubra) [l]

Medium to tall shrubs

Mock orange (Philadelphus lewisii) [n]

Nutka rose (Rosa nutkana) [l] [n]

Ocean spray (Holodiscus discolor) [l] [n]

Redstem ceanothus (Ceanothus
sanguineum) [l]

Scouler's willow (Salix scouleriana) [l] [n]

Low Perennials and annuals American vetch (Vicia americana) [I] [n] Broadleaf strawberry (Fragaria virginiana) [l] [n] California poppy (Eschscholtzia californica) [n] Cat's ears (Calochortus tolmeia) [n] Cutleaf microseris (Microseris laciniata) [n] Early blue violet (Viola adunca)[h] Monkey flower (Mimulus guttatus) [I] Rosy plectritis (Plectritis congesta) [n] Slim-leaf onion (Allium amplectens) [n] Spring-gold (Lomatium utriculatum) [n] Stream violet (Viola glabella) [l] Western buttercup (Ranunculus occdentalis) [n] Wintercress (Barbarea orthocerus) [I] [n]

Ornamental Grasses and Sedges

Medium to Tall Grasses

Blue wildrye (Elymus glaucus)

California oatgrass (Danthonia californica)

Roemers fescue (Festuca roemeri)

Tufted hairgrass (Deschampsia cespitosa)

Low Grasses
California oatgrass (Danthonia californica)
Dense sedge (Carex densa)
Dewey's sedge (Carex dewyana)
Foothill sedge (Carex tumulicola)
Junegrass (Koeleria macrantha)
Pine bluegrass (Poa secunda)
Spiked bentgrass (Agrostis exarata)

A List of 12 Favorites and their benefits

- Lavenders: Bumblebees, carpenter bees, digger bees and large and small leafcutting bees collect the nectar of this evergreen shrub.
- Pacific or coast rhododendron: Larval host for brown elfin and gray hairstreak butterflies. Hummingbirds, bees and Western tiger swallowtails collect the nectar of this evergreen shrub. Native to the Pacific Northwest.
- Blueblossom: Larval host for pale swallowtail, California tortoiseshell and echo blue butterflies. Bumblebees, carpenter bees, honey bees, digger bees and a variety of small native bees collect the nectar of this evergreen shrub.
- Ocean spray: Larval host for spring azure, brown elfin and Lorquin's admiral butterflies. Bumblebees and a variety of small native bees collect the nectar of this deciduous shrub.
- Serviceberry: Hummingbirds, bees and butterflies collect the nectar of this deciduous shrub. Larval host for Weiddemeyer's admiral butterflies. Native to the Pacific Northwest.
- Russian sage: Honey bees, small carpenter bees and leafcutting bees collect the nectar of this perennial garden plant. The nectar also attracts hummingbirds.

- Red-flowering currant: Important nectar source for early-season butterflies. Nectar also attracts hummingbirds. Perennial that is a native to the Pacific Northwest.
- Zinnias: A wide array of hummingbirds, butterflies and bees collect the nectar.
 Annual garden plant.
- Sunflower: Longhorn bees, sweat bees, leafcutting bees and bumblebees collect the pollen and nectar of this annual.
- Salal: Larval host for spring azure butterflies. Bees collect the nectar on this groundcover. Native to the Pacific Northwest.
- Catmint: Honey bees, bumblebees, carder bees and mason bees collect nectar and pollen from this perennial.
- Milkweed: Monarch butterflies collect nectar and pollen and lay their eggs on this perennial wildflower. Nectar also attracts hummingbirds. Native to the Pacific Northwest.

Resources for Buying

OREGON FLORA WEBSITE GARDENING WITH NATIVES PLANTS PAGE

http://www.oregonflora.org/gardening.php

- Plantnative.org [lists vendors by state and city]
- Native Seed Network [list of seed vendors and ecoregion specific plant lists]
- Soil and Water Conservation District plant sales
 NoteL Vendors will often donate to public space projects!

THANK YOU

