RESOURCES FOR ADDING NATIVE PLANTS TO YOUR GARDEN*

To learn more about Professor Doug Tallamy's recommendations for gardening for wildlife, I heartily recommend his best-selling book, **Nature's Best Hope.** A **New Approach to Conservation that Starts in Your Yard.** I also recommend watching any of his recent presentations posted on YouTube. One that focuses on the west coast was given in California on June 27, 2020 (https://www.youtube.com/watch?v=PKe0UzqazuU). Like his other presentations, it contains excellent information and specific advice about what we can do to improve the habitat in our gardens – whatever their size -- so birds, insects and other wildlife can thrive in our midst.

You may also be interested in exploring an online resource, entitled Homegrown National Park, that Prof. Tallamy has created to encourage individuals across the nation to embark on and track their progress in adding native plants to their gardens. You can learn more about it at Https://homegrownnationalpark.org/.

How to Select and Grow Native Plants

Printed publications

- Tonie Fitzgerald and Michael Terrell, Landscaping with Natives in the Inland Northwest, WSU Coop Extension, Spokane County misc0267
- Arthur R. Kruckeberg, Gardening with Native Plants of the Pacific Northwest, (1982, 1996, 2019)
- Russell Link, Landscaping for Wildlife in the Pacific Northwest. The appendices have a wealth of useful information. For example,
 - o Appendix B identifies plants for particular needs and conditions (pp. 224-33). "Food Plants for Butterfly Larvae" are listed on p. 234 and pp. 235-36 have lists of nectar plants for adult butterflies and for hummingbirds. Deer resistant plants are on p. 237-38.
 - o Appendix C Landscape and Wildlife Information for Specific Plants -- identifies native trees, shrubs, perennials and wildflowers and grasses along with their size, light needs, soil needs and a brief description of the plant, suggested landscape settings and other helpful info, including the wildlife known to use the plant.

Useful Websites

- National Wildlife Federation, Gardening for Wildlife: https://www.nwf.org/garden
- National Audubon Society: https://www.audubon.org/plantsforbirds; click on the Native Plants Database and type in your zip code to get specific recommendations.
- Washington Native Plant Society, https://www.wnps.org/native-gardening provides a plant directory with several hundred native plants, including photos and valuable information on their habitat needs.
- https://your.kingcounty.gov/dnrp/library/water-and-land/yard-and-garden/native-plant-guide-western-washington.pdf offers advice on choosing and planting plants and provides

^{*} This list of resources is in no way comprehensive. It is offered as a starting point for exploration.

- sample planting designs for western WA with the following conditions: sunny/dry, sunny/moist, shady/dry and shady/moist.
- https://extension.wsu.edu/spokane/master-gardener-program/home-lawn-and-garden/inw-gardening/native-plants/
- https://s3.wp.wsu.edu/uploads/sites/2076/2020/11/C177-Beneficial-Insects-2020.pdf
- https://extension.wsu.edu/chelan-douglas/gardening/generalgardening/native/
- Columbia Basin Native Plant Society: https://www.facebook.com/CBWNPS/

Where to buy native plants and seeds

The Washington Native Plant Society's website has *a list of 51 nurseries that sell native plants*, sorted alphabetically by 1) retail plants 2) retail seeds and 3) wholesale plants and seeds, in WA, OR and British Columbia: https://wnps.org/content//documents/plants/gardening/native-plant-seed-source-32021.pdf

King County Lands Division has a list of 89 native plant nurseries in Washington State sorted by location: https://kingcounty.gov/services/environment/stewardship/nw-yard-and-garden/native-plant-nurseries-washington.aspx

These native plant nurseries can be goldmines of information about the plants that will work in your area. Some also offer design ideas.

Recommended Native Plants

The most productive keystone plants for our region turn out to be trees. They are identified in lists compiled by Tallamy in concert with the National Wildlife Federation. Even smaller trees like a Vine maple, a Bittercherry, a Chokecherry or a smaller willow are very useful if you have space to add them in your garden.

Those of us who live in urban areas on small lots with established gardens may not be able to easily add trees to our existing landscapes. But that doesn't mean we can't do our part and make a difference, especially if you are able to convert grassy areas to native plants.

Many smaller native plants (shrubs, perennials, annuals, groundcovers and grasses) are also used by moths and butterflies to complete their life cycles and they may be a better fit for smaller gardens.

Even if your space is limited to a patio or a balcony, you can add pots with different types of native flowers that will provide nectar for pollinators.

Hostplants for Butterflies and Moths in WA

To date, no one has compiled a comprehensive list of plant species -- smaller than trees (shrubs, perennials, wildflowers, grasses, groundcovers, etc.) -- that serve as hostplants for the moths and butterflies of the Pacific Northwest. However, several plant lists have been compiled by knowledgeable sources that may be helpful, including the following:

- 1. The Xerces Society
- 2. The Koma Kulshan Chapter of the Washington Native Plant Society
- 3. David Droppers
- 4. Regina Johnson
- 5. Molbak's Nursery: Top 20 Pollinator Perennials
- 6. City of Kirkland Native Plants Shrubs

They have each developed guides to help you choose plants that will serve as hostplants for pollinators (both butterflies and moths). Moths use many of the same hostplants that butterflies use. These lists contain native plants that can work well in smaller gardens.

1. The **Xerces Society** has a list of specific pollinator-friendly plants for the Maritime Northwest Region available at the following link: https://xerces.org/sites/default/files/2018-05/17-048 03 XercesSoc Pollinator-Plants Maritime-Northwest-Region web-3page.pdf.

This brochure identifies 24 helpful plant species and indicates the bloom period, common/scientific names, life cycle (annual, perennial, bi-annual), flower color, maximum height, water needs and notes for each plant.

Gardening for Butterflies, prepared by The Xerces Society, 2016 is another useful resource. On p. 234 it identifies the "best moth garden plants" for the Pacific Northwest and British Columbia, when supplemented by a diversity of other native plants:

- Blanketflower Gaillardia aristate
- Douglas aster Symphyotrichum subspicatum
- Fireweed Chamerion angustifolium
- Garry Oak Quercus garryana
- Oregon checkermallow Sidalcea oregana
- Puget Sound gumweed Grindelia integrifolia
- Scouler's willow Salix scouleriana

On p. 231, the authors observe that "moth caterpillars feed on a somewhat more diverse range of foods than butterflies. Like butterflies, the vast majority of moths feed on a host plant during their caterpillar stage. But rather than limiting themselves to leaves as most butterflies do, some moths also eat seeds or roots, or, by boring into woody stems or branches, eat the plant from the inside. Fewer than 1 percent of moth species (only in the family Tieidae) eat fabrics such as wool."

On page 233, the authors offer the following advice: "In creating a moth-friendly garden, your focus should be on selecting as a foundation many of the same native plants you would use to attract bees and butterflies. From there you should be sure to select any additional plants known to be important for specific moth groups you want to attract, and possibly include lots of those plants to increase the chances of the moths you are interested in visiting your garden."

2. James Davis and Abe Lloyd prepared a very useful brochure for the **Koma Kulshan Chapter of the Washington Native Plant Society**; it covers Whatcom County. The brochure is entitled, Bee-Friendly Native Landscaping. It is available at the following link: https://wnpskoma.org/pollinator-gardens/.

A graphic shows the flowering times for 22 native plants. This is followed by a table that presents, for each plant, the form (shrub or perennial); height; soil moisture; shade tolerance (sun, partial shade, shade); and its relative attractiveness to bumble bees (rated 1 to 10).

James Davis reported that the brochure was developed based on bumble bee research in Whatcom County; he felt sure the research would be valid in Skagit County. However, he cautioned that there could be some differences in flower phenology and/or plant attractiveness to bumble bees in the southern portion of Puget Sound.

3. Butterfly Garden Plant Guide Prepared by David Droppers

Butterfly Garden		Us	e				
Plant Guide * = highly recom	_	Nectar		Exposure	Soil	Bloom	Birds?
setting		or a gara					
Trees							
Cherry (Prunus				Full to			
emarginata)	*	X	X	partial	Moist to dry	Spring	Yes
Pacifc Madrone				Full to		Spring to E	
(Arbutus menziesii)		X	X	partial	Dry	summer	Yes
Quaking Aspen				T 11			
(Populus tremuloides)			X	Full sun Full to	Wet to moist		
Willow (Salix)	*	X	X	partial	Wet to dry	Spring	Yes
(5.000)				r		- F8	
Shrubs							
Mock Orange				Full to			
(Philadelphus lewisii)	*	X		partial	Moist to dry	Summer	Yes
Oceanspray				Full to			
(Holodiscus discolor)	*		X	partial	Moist to dry	Summer	Yes
Red-oiser Dogwood				Full to	XX7	G :	3 7
(Cornus stolonifera)		X	X	partial	Wet to moist	Spring	Yes
Rhododendron	*	**		Full to	Maist to day	L spring to	Vac
(<i>Rhododendron</i>) Wild Lilac	·	X		partial Full to	Moist to dry	mid summer	Yes
(Ceanothus)	*	X	X	partial	Dry	Spring	Yes
Hardhack (Spiraea				Full to			
douglasii)		X	X	partial	Wet to moist	Summer	Yes
Chaste Tree (Vitex				Full to		Summer, E	
agnus-catus)	*	X		partial	Moist to dry	fall	
Hawthorn (Crataegus				Full to	No. 1	L spring to E	37
douglasii)			X	partial	Moist to dry	summer	Yes
Kinnikinnik (Arctostaphylos uva-				Full to			
ursi)	*	X	X	partial	Moist to dry	Spring	Yes
Plant Guide	Rating	Nectar	Host	Exposure	Soil	Bloom	Birds?
Lilac (Syringa				Full to		Spring to E	
vulgaris)	*	X		partial	Moist to dry	summer	

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Aster (Aster)	*	X		Full	Moist to dry	L summer to fall	
Pearly Everlasting				Full to			
(Anaphlis margariacea)	*	X	X	partial	Moist to dry	Summer	
Milkweed (Asclepias)	*	X	X	Full sun	Moist to dry	Summer	
Bleeding Heart				Partial to	J		
(Dicentra)			X	shade	Moist		Yes
				Full to			
Lupine (<i>Lupinus</i>)	*		X	partial	Moist to dry	Summer	Yes
Stinging Nettle				Partial to			
(Urtica dioica)			X	shade	Wet to moist		
Giant Hyssop (<i>Agastache</i>						Summer to E	
foeniculum)	*	X		Full sun	Moist to dry	fall	
Coneflower					J		
(Echinacea purpurea)	*	X		Full sun	Moist to dry	Summer	
						L summer to	
Goldenrod (Solidago)		X		Full sun	Moist to dry	fall	Yes
Fireweed (Epilobium				Full to			
angustifolium)		X		partial Full to	Moist to dry	Summer L spring to	Yes
Fleabane (Erigeron)	*	X		partial	Moist to dry	summer	
Blazing Star (<i>Liatris</i>)	*	X		Full to partial	Moist to dry	Summer	
Diazing Star (Liuiris)		Λ		partiai	wioist to dry	Summer	
Annuals and Herbs						C .	
Marigold	*	X		Full sun	Moist to dry	Summer to fall	
Marigora		11		Full to	maist to dry	1411	
Cosmos	*	X		partial	Moist to dry	Summer	
Zinnia	*	X		Full sun	Moist to dry	Summer	
т 1	*			F 11	3.6 1	Summer to E	
Lavender	*	X		Full sun	Moist to dry	fall	
Oregano	T	X		Full sun	Dry	Summer	
Sweet William	*			Full to	M - : -4	C	
(Dianthus)	~	X		partial	Moist	Summer	

By no means is this list complete! There is more experimentation and observation that needs done.

Be adventurous, try something new, and share your results.

4. Butterfly Garden Plant Guide Prepared by Regina Johnson

Native Plant Host	Caterpillar/Butterfly Species				
Maple (Acer): bigleaf, vine, Douglas (A. macrophyllum, A. circinatum, A. glabrum)	Pale and Western Tiger Swallowtail, Mourning Cloak (Papilio eurymedon, P. rutulus, Nymphalis antiopa)				
Hawthorn (<i>Crataegus</i>): black, Columbian (<i>Crataegus douglasii</i>)	Pale Tiger Swallowtail, Mourning Cloak, Gray Hairstreak (Papilio eurymedon, Nymphalis antiopa, Strymon melinus)				
Cherry (<i>Prunus</i>): bitter, choke (<i>P. emarginata</i> , <i>P. virginiana</i>)	Pale and Two-Tailed Tiger Swallowtail, Spring Azure, Lorquin's Admiral (<i>Papilio eurymedon, P. multicaudata,</i> <i>Celastrina echo , Limentis lorquini</i>)				
Willow (Salix): many species	Tiger swallowtails, Lorquin's Admiral, Mourning Cloak, viceroy (<i>Papilio spp., Limentis lorquini, Nymphalis antiopa, Limentis archippus</i>)				
Ceanothus (<i>Ceanothus</i>): redstem, snowbrush (<i>C. sanguineus</i> , <i>C. velutinus</i>)	Pale Tiger Swallowtail, California Tortoiseshell, Brown Elfin (<i>Papilio eurymedon, Nymphalis californica, Callophrys augustinus</i>)				
Oceanspray (Holodiscus discolor)	Pale Tiger Swallowtail, Gray Hairstreak, Spring Azure, Lorquin's Admiral (<i>Papilio eurymedon, Strymon melinus, Celastrina echo, Limentis lorquini</i>)				
Pearly Everlasting (<i>Anaphalis</i> margaritacea)	Painted Lady (Vanessa cardui)				
Western bleeding heart (<i>Dicentra</i> formosa)	Clodius Parnassian (Parnassius clodius)				
Lomatium (Lomatium): many species	Anise and Indra Swallowtails (Papilio zelicaon, P. indra)				
Wild buckwheat (<i>Eriogonum</i>): different species	Euphilotes blues, green hairstreaks (<i>Euphilotes</i> spp., <i>Callophrys</i> spp.)				
Lupine (Lupinus): many species	Silvery and Boisduval's Blues, Western Sulphur (Glaucopsyche lygdamus, Icaricia icarioides, Colias occidentalis)				
Stinging Nettle (<i>Urtica dioica</i>)	Red Admiral, Painted Lady, Milbert's Tortoiseshell, Satyr Anglewing (Vanessa atalanta, V. cardui, Aglais milberti, Polygonia satyrus)				
Kinnikinnick (Arctostaphylos uva- ursi)	Brown Elfin (Callophrys augustinus)				
Salal (Gaultheria shallon)	Brown Elfin, Spring Azure (Callophrys augustinus, Celastrina echo)				
Milkweeds (Asclepias spp.)	Monarchs (Danaus plexippus)				
Bitterbrush (Purshia tridentata)	Brown Elfin (Callophrys augustinus)				
Thistles (Cirsium): any	Painted Lady, Mylitta Crescent (Vanessa cardui, Phycioides mylitta)				

	Greater fritillaries, Western Meadow Fritillary (<i>Speyeria</i> spp., <i>Boloria epithore</i>)
Traccec (Phareno) maci and	Common Ringlet, wood nymphs, grass skippers (Coenonympha tullia, Cercyonis spp., Hesperiinae spp.)
Pine (<i>Pinus</i>): lodgepole/shore, western white, ponderosa (<i>P. contorta, P. monticola, P. ponderosa</i>)	Pine White (Neophasia menapia

This list was created and generously shared by Regina Johnson. It is taken from her article, "How to Support Your Local Caterpillars," Douglasia, Vol. 44, No. 3, Fall/Winter 2020, pp. 21-23.

- 5. Top 20 Pollinator Perennials from Molbak's' website (https://www.molbaks.com/top-20-pollinator-perennials/) that are cold-hardy, readily available, and easy-to-grow.
 - 1. Achillea (Yarrow) bees, butterflies, and other beneficial insects
 - 2. Agastache (Hummingbird Mint) bees, butterflies, hummingbirds
 - 3. Asclepias (Milkweed) butterflies
 - 4. Coreopsis (Tickseed) bees, butterflies
 - 5. Digitalis (Foxglove) bees, hummingbirds
 - 6. Echinacea (Coneflower) bees, butterflies, and other beneficial insects
 - 7. Eupatorium (Joe Pye Weed) bees, butterflies, and other beneficial insects
 - 8. Helenium (Sneezeweed) bees, butterflies
 - 9. Lavandula (Lavender) bees, butterflies
 - 10. Lupinus (Lupine) bees
 - 11. Monarda (Bee Balm) bees, butterflies, hummingbirds
 - 12. Nepeta (Catmint) bees, hummingbirds
 - 13. Penstemon (Beard Tongue) bees, hummingbirds
 - 14. Leucanthemum (Shasta Daisy) bees, butterflies
 - 15. Rudbeckia (Black Eyed Susan) bees, butterflies
 - 16. Rosmarinus (Rosemary) bees, butterflies and other beneficial insects
 - 17. Salvia bees, hummingbirds
 - 18. Sedum bees, butterflies
 - 19. Solidago (Goldenrod) bees, butterflies and other beneficial insects
 - 20. Verbena bonariensis (Verbena) butterflies
- 6. City of Kirkland Native Plant List –A list of 18 Trees, Shrubs and Groundcovers showing plant heights, widths and growing conditions:

https://www.kirklandwa.gov/files/sharedassets/public/planning-amp-building/planning-applications-and-forms/native-plant-list-shrubs.pdf:

Keystone Plants for Different Ecoregions in the Pacific Northwest

The **National Wildlife Federation**, in cooperation with Prof. Doug Tallamy, has created lists of the Top 30 Keystone Plant Genera as well as the Top 30 Keystone Plant Genera for Butterfly and

Moth Caterpillars for three different ecoregions in WA State. These lists are available at the following web addresses:

- Northwest Forested Mountains Ecoregion 6: <a href="https://nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-keystone-plant-list-ecoregion-6-northwestern-forested-mountains.ashx?la=en&hash=66AD9C24D92FE3D0BD622A5A5062D4BE76A4E52C
- Marine West Coast Forest Ecoregion 7 <a href="https://nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-keystone-plant-list-ecoregion-7-marine-west-coast-forest.ashx?la=en&hash=42F2C85CBCF89CDBD91BBA6DC872EEA25482186E
- North American Deserts. https://nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-keystone-plant-list-ecoregion-10-north-american-deserts.ashx?la=en&hash=77BBCF0E0C5E71C65733412B56C329B5DE6E92CF">https://nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-keystone-plant-list-ecoregion-10-north-american-deserts.ashx?la=en&hash=77BBCF0E0C5E71C65733412B56C329B5DE6E92CF">https://nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-keystone-plant-list-ecoregion-10-north-american-deserts.ashx?la=en&hash=77BBCF0E0C5E71C65733412B56C329B5DE6E92CF

How to Identify Moths in the Pacific Northwest

To learn more about and to identify moths in the Pacific Northwest, please consult the following websites:

- Moth Photographers Group: mothphotographersgroup.msstate.edu
- Bug Guide: https://bugguide.net
- Butterflies and Moths of N. America: https://www.butterfliesandmoths.org