



Keystone Native Plants

Marine West Coast Forest – Ecoregion 7

Native plants have tight relationships with wildlife, formed over many thousands of years, providing natural sources of food, cover and places to raise young. Without healthy native plant communities, wildlife cannot survive. Every ecoregion has different native plant communities.

Keystone plants are native plants critical to the food web and necessary for many wildlife species to complete their life cycle. Without keystone plants in the landscape, butterflies, native bees, and birds will not thrive. 96% of our terrestrial birds rely on insects supported by keystone plants.






There are two types of keystone plants:




-  Host plants that feed the young caterpillars of approximately 90% of butterflies and moths (Lepidoptera).
-  Plants that feed specialist bees who only eat pollen from specific plants. Keystone plants for native bees feed both specialist and generalist bees.

Entomologist Dr. Doug Tallamy, and his University of Delaware research team have identified the keystone plants that support butterfly and moth species. Native host plants of pollen specialist bees were researched by pollinator conservationist Jarrod Fowler.

Top Keystone Plant Genera in Marine West Coast Forest – Ecoregion 7

A genus is a taxonomic category of plants that contains one or more species of plants with similar characteristics. Species within each genus have adapted to local conditions and are the appropriate native species or varieties suited to a specific ecoregion.

Plant Type	Plant Genus	Sample of Common Species (not all encompassing)	# Caterpillar Species that Use this as a Host Plant	# of Pollen Specialist Bee species that Rely on this Plant
Trees	<i>Quercus</i>	Oregon white oak (<i>Quercus garryana</i>)	436 	
	<i>Prunus</i>	Oregon cherry (<i>Prunus emarginata</i>), Chokecherry (<i>Prunus virginiana</i>)	340 	
	<i>Betula</i>	Water birch (<i>Betula occidentalis</i>), Resin birch (<i>Betula glandulosa</i>)	284 	
	<i>Populus</i>	American aspen (<i>Populus tremuloides</i>), Balsam poplar (<i>Populus balsamifera</i>)	249 	
	<i>Acer</i>	Rocky Mountain maple (<i>Acer glabrum</i>), Bigleaf maple (<i>Acer macrophyllum</i>), Box elder (<i>Acer negundo</i>)	238 	
	<i>Malus</i>	Oregon crabapple (<i>Malus fusca</i>)	237 	
	<i>Pinus</i>	Lodgepole pine (<i>Pinus contorta</i>), Ponderosa pine (<i>Pinus ponderosa</i>)	200 	
	<i>Alnus</i>	Grey alder (<i>Alnus incana</i>), Sitka alder (<i>Alnus sinuata</i>)	173 	
	Shrubs	<i>Salix</i>	Shining willow (<i>Salix lasiandra</i>), Scouler's Willow (<i>Salix scouleriana</i>), Sitka willow (<i>Salix sitchensis</i>)	289 
<i>Vaccinium</i>		Dwarf bilberry (<i>Vaccinium caespitosum</i>), Alpine blueberry (<i>Vaccinium uliginosum</i>)	217 	14 
Flowering Perennials	<i>Helianthus</i>	Common sunflower (<i>Helianthus annuus</i>), Prairie sunflower (<i>Helianthus petiolaris</i>)	41 	50 
	<i>Solidago</i>	West coast Canada goldenrod (<i>Solidago elongata</i>), Western goldenrod (<i>Solidago lepida</i>)	49 	42 
	<i>Symphyotrichum</i>	Eaton's aster (<i>Symphyotrichum eatonii</i>), Western mountain aster (<i>Symphyotrichum spathulatum</i>)	3 	33 

	<i>Grindelia</i>	Idaho gumplant (<i>Grindelia nana</i>), Curlycup gumweed (<i>Grindelia squarrosa</i>)	9 	31 
	<i>Rudbeckia</i>	Western coneflower (<i>Rudbeckia occidentalis</i>)	4 	29 
	<i>Heterotheca</i>	Hairy false goldenaster (<i>Heterotheca villosa</i>)	7 	24 
	<i>Coreopsis</i>	Plains coreopsis (<i>Coreopsis tinctoria</i>)		22 
	<i>Bidens</i>	Nodding bur-marigold (<i>Bidens cernua</i>), devils's beggartick <i>Bidens frondosa</i> (<i>Bidens frondosa</i>)		15 
	<i>Cirsium</i>	Clustered thistle (<i>Cirsium brevistylum</i>)		15 
	<i>Erigeron</i>	Glacial daisy (<i>Erigeron glacialis</i>), Daisy fleabane (<i>Erigeron philadelphicus</i>)		12 

 **Top 30 Keystone Plant Genera for Butterfly and Moth Caterpillar**

Genus	Common Plant Name	# of Caterpillar Species that use this as a Host Plant
<i>Salix</i>	willow	326
<i>Prunus</i>	almond, apricot, cherry, peach, plum	257
<i>Populus</i>	aspen, cottonwood, poplar	233
<i>Quercus</i>	oak	225
<i>Alnus</i>	alder	213
<i>Pinus</i>	pine	209
<i>Betula</i>	birch	204
<i>Malus</i>	apple	164
<i>Vaccinium</i>	blueberry, cranberry, deerberry	129
<i>Picea</i>	spruce	126
<i>Acer</i>	maple	125
<i>Abies</i>	fir	122
<i>Pseudotsuga</i>	douglas fir	122
<i>Tsuga</i>	hemlock	116
<i>Rubus</i>	blackberry, raspberry	101
<i>Ceanothus</i>	ceanothus	100
<i>Rosa</i>	rose	99
<i>Larix</i>	larch	87
<i>Crataegus</i>	hawthorn	85
<i>Amelanchier</i>	serviceberry	83
<i>Corylus</i>	hazel	75
<i>Fragaria</i>	strawberry	70
<i>Lupinus</i>	lupin	64
<i>Vitis</i>	grape	62
<i>Cornus</i>	dogwood	60
<i>Arctostaphylos</i>	bearberry, manzanita	60
<i>Fraxinus</i>	ash	57
<i>Spiraea</i>	meadowsweet, steeplebush	56
<i>Solidago</i>	goldenrod	54
<i>Artemisia</i>	sagebrush	53

 **Top 30 Native Host Plants for Pollen Specialist Bees**

Genus	Common Plant Name	# of Pollen Specialist Bee Species Relying on this Plant
<i>Ericameria</i>	goldenbush	20
<i>Grindelia</i>	gumweed	20
<i>Cirsium</i>	thistle	17
<i>Solidago</i>	goldenrod	16
<i>Salix</i>	willow	15
<i>Erigeron</i>	fleabane	14
<i>Helianthus</i>	sunflower	14
<i>Heterotheca</i>	goldenaster	14
<i>Astragalus</i>	milkvetch	13
<i>Chrysothamnus</i>	rabbitbrush	13
<i>Senecio</i>	ragwort	13
<i>Gutierrezia</i>	snakeweed	12
<i>Lotus</i>	bird's foot trefoil, deervetch	12
<i>Cryptantha</i>	cryptantha	11
<i>Encelia</i>	brittlebush	11
<i>Phacelia</i>	phacelia	11
<i>Chaenactis</i>	pincushion	9
<i>Trifolium</i>	clover	9
<i>Lupinus</i>	lupin	8
<i>Machaeranthera</i>	tansyaster	8
<i>Symphotrichum</i>	aster	8
<i>Coreopsis</i>	tickseed	7
<i>Hemizonia</i>	tarweed	7
<i>Baileya</i>	desert marigold	6
<i>Stephanomeria</i>	wirelettuce	6
<i>Achillea</i>	yarrow	5
<i>Arctostaphylos</i>	bearberry, manzanita	5
<i>Camissonia</i>	suncup	5
<i>Lasthenia</i>	goldfields	5
<i>Ranunculus</i>		5