

# Keystone Native Plants

## Tropical Wet Forests – Ecoregion 15

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 Tropical Wet Forests – Ecoregion 15

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>	Sand laurel oak ( <i>Quercus hemisphaerica</i> ), Swamp laurel oak ( <i>Quercus laurifolia</i> )	395 	
	<i>Prunus</i>	Carolina cherry laurel ( <i>Prunus caroliniana</i> ), Black cherry ( <i>Prunus serotina</i> )	247 	
	<i>Acer</i>	Box elder ( <i>Acer negundo</i> ), Red maple ( <i>Acer rubrum</i> )	171 	
	<i>Pinus</i>	Slash pine ( <i>Pinus elliottii</i> ), Longleaf pine ( <i>Pinus palustris</i> )	171 	
	<i>Ulmus</i>	American elm ( <i>Ulmus americana</i> )	131 	
	<i>Fraxinus</i>	White ash ( <i>Fraxinus americana</i> ), Green ash ( <i>Fraxinus pennsylvanica</i> )	99 	
	Shrubs	<i>Salix</i>	Coastal plain willow ( <i>Salix caroliniana</i> )	190 
<i>Vaccinium</i>		Northern highbush blueberry ( <i>Vaccinium corymbosum</i> ), Deerberry ( <i>Vaccinium stamineum</i> )	150 	
<i>Rubus</i>		Sawtooth blackberry ( <i>Rubus argutus</i> ), Southern dewberry ( <i>Rubus trivialis</i> )	93 	
<i>Baccharis</i>		Saltbush ( <i>Baccharis halimifolia</i> )	31 	4 
Flowering Perennials		<i>Solidago</i>	Sweet goldenrod ( <i>Solidago odora</i> ), Twistleaf goldenrod ( <i>Solidago tortifolia</i> )	82 
	<i>Helianthus</i>	Narrowleaf sunflower ( <i>Helianthus angustifolius</i> ), Paleleaf woodland sunflower ( <i>Helianthus strumosus</i> )	58 	7 
	<i>Coreopsis</i>	Coastal plain tickseed ( <i>Coreopsis gladiata</i> ), Lanceleaf coreopsis ( <i>Coreopsis lanceolata</i> )	5 	6 
	<i>Heterotheca</i>	Camphorweed ( <i>Heterotheca subaxillaris</i> )	18 	6 

	<i>Rudbeckia</i>	Black-eyed Susan ( <i>Rudbeckia hirta</i> )	11 	6 
	<i>Chrysopsis</i>	Maryland golden-aster ( <i>Chrysopsis mariana</i> )	8 	4 
	<i>Pityopsis</i>	Narrowleaf silkgrass ( <i>Pityopsis graminifolia</i> )	6 	4 
	<i>Verbesina</i>	Frostweed ( <i>Verbesina virginica</i> )	20 	4 
	<i>Helenium</i>	Purpleheaded sneezeweed ( <i>Helenium flexuosum</i> )	6 	3 



### 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>Quercus</i>	oak	395
<i>Prunus</i>	almond, apricot, cherry, peach, plum	247
<i>Salix</i>	willow	190
<i>Acer</i>	maple	171
<i>Pinus</i>	pine	171
<i>Vaccinium</i>	blueberry, cranberry, deerberry	150
<i>Ulmus</i>	elm	131
<i>Fraxinus</i>	ash	99
<i>Rubus</i>	blackberry, raspberry	93
<i>Solidago</i>	goldenrod	82
<i>Cornus</i>	dogwood	77
<i>Viburnum</i>	viburnum	75
<i>Vitis</i>	grape	58
<i>Helianthus</i>	sunflower	58
<i>Diospyros</i>	persimmon	56
<i>Rhus</i>	sumac	50
<i>Celtis</i>	hackberry	43
<i>Ilex</i>	holly	41
<i>Hibiscus</i>	hibiscus	37
<i>Vigna</i>	bean, pea	35
<i>Cissus</i>	treebine	34
<i>Cassia</i>	cassia	32
<i>Baccharis</i>	baccharis	31
<i>Eupatorium</i>	boneset	31
<i>Gaylussacia</i>	huckleberry	30
<i>Acacia</i>	acacia, wattle	29
<i>Ficus</i>	fig	29
<i>Juniperus</i>	juniper	27
<i>Parthenocissus</i>	virginia creeper	27
<i>Lonicera</i>	honeysuckle	26



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

Genus	Common Plant Name	# of Pollen Specialist Bee Species Relying on this Plant
<i>Helianthus</i>	sunflower	7
<i>Coreopsis</i>	tickseed	6
<i>Heterotheca</i>	goldenaster	6
<i>Rudbeckia</i>	black eyed susan	6
<i>Solidago</i>	goldenrod	5
<i>Baccharis</i>	baccharis	4
<i>Chrysopsis</i>	goldenster	4
<i>Pityopsis</i>	silkgrass	4
<i>Verbesina</i>	wingstem	4
<i>Cirsium</i>	thistle	3
<i>Helenium</i>	sneezeweed	3
<i>Vernonia</i>	ironweed	3
<i>Balduina</i>	honeycombhead	2
<i>Erigeron</i>	fleabane	2
<i>Physalis</i>	groundcherry	2
<i>Syphyotrichum</i>	aster	2
<i>Borrichia</i>	seaside tansy	1
<i>Euthamia</i>	goldentop	1
<i>Ilex</i>	holly	1
<i>Opuntia</i>	pricklypear	1
<i>Pectis</i>	chinchweed	1
<i>Pontederia</i>	pickerelweed	1
<i>Pyrrhopappus</i>	desert chicory	1
<i>Salix</i>	willow	1
<i>Silphium</i>	rosinweed	1
<i>Vaccinium</i>	blueberry, cranberry, deerberry	1