

***The plant lists presented here are a introduction to some of the essential keystone work-horse plants for use in gardens that support pollinators, and provide for diversity and ecological function in your home or public landscape.***

“We are at a critical point of losing so many species from local ecosystems that their ability to produce the oxygen, clean water, flood control, pollination, pest control, carbon storage, etc, that is, the ecosystem services that sustain us, will become seriously compromised.

My research has shown that non-native ornamentals support 29 times less animal diversity than do native ornamentals. And when these same ornamentals escape our gardens and run amuck in our natural areas, they reduce insect biomass by 96%.”

**Dr. Doug Tallamy,  
author *Bringing Nature Home***

Our thanks to Dr. Doug Tallamy, author of *Bringing Nature Home*, *Nature's Best Hope* and co-author with Rick Darke of *The Living Landscape* for sharing his research.

Online plant search data is available at **EMUdata.org**

Other resources for Native Plant info:  
PA Dept. of Conservation and Natural Resources  
Penn State Extension  
Missouri Botanical Garden  
<https://www.missouribotanicalgarden.org/>  
Lady Bird Johnson Wildflower Center  
<https://www.wildflower.org/>  
National Wildlife Federation Native Plant Finder  
<https://www.nwf.org/nativeplantfinder/>

Special Thanks to:  
***Native Plants of the Northeast***  
by Donald L. Leopold



## **Landscaping with Native Plants *in Pennsylvania***



*This brochure was compiled and provided by Spruce Hollow LLC, a Landscape Design firm based in Mt. Airy, Philadelphia, PA.*

*We design, install and maintain gardens in Mt. Airy, Chestnut Hill, Wyndmoor and beyond.*

**SpruceHollowNaturalDesigns.com**



# Large Trees

Upperstory long-lived trees are essential to maintain a healthy ecosystem.

*They take up water, provide shade and sequester carbon, while serving as a food source and shelter for insects and birds.*

Latin Name	Common Names	Ht	Color	Bloom Time
<i>Acer, Maple</i>	Red maple, Silver maple	60'	red, yellow	Spring
<i>Alnus, Alder</i>	Gray alder, Smooth alder	12' -36'		Spring
<i>Betula, Birch</i>	Sweet birch, River birch, Gray birch	50'	red,green,brn	April, May
<i>Carya, Hickory</i>	Shagbark, Shellbark	80'	green,brn	Mar-June
<i>Chamaecyparis thyoides</i>	Atlantic white cedar	50'		
<i>Diospyros virginiana</i>	Persimmon	30' -80'	whitish	Spring
<i>Ilex opaca</i>	American holly	50'	white	Mar-June
<i>Juniperus virginiana</i>	Eastern red cedar	45'		
<i>Nyssa sylvatica</i>	Black gum	50'		
<i>Pinus, Pine</i>	Shortleaf Pine, Eastern white pine	100'		
<i>Pseudotsuga menziesii</i>	Douglas-fir	40' - 70'		
<i>Quercus, Oak</i>	White, Swamp White, Willow Oak, Scarlet oak		Varies by type	
<i>Tilia americana, Linden</i>	Basswood	80'	yellow	late spring
<i>Ulmus, Elm</i>	American elm, Slippery elm	40' - 70'	red,green,brn	Jan-Dec



*Ostrya virginiana*, American Hophornbeam

# Understory Trees

*Smaller trees provide flowers, shade and habitat. They can be a garden focal point for all seasons.*



The Keeler Oak Tree in Mansfield Township, Burlington County, New Jersey

Latin Name	Common Names	Ht	Color	Bloom Time
<i>Amelanchier arborea</i>	Downy serviceberry	15' - 20'	white	April
<i>Amelanchier canadensis</i>	Shadbush	15' - 20'	white	April
<i>Amelanchier laevis</i>	Smooth serviceberry	15' - 20'	white	April
<i>Carpinus caroliniana</i>	Ironwood	30'	red,green,brn	Mar-May
<i>Celtis occidentalis</i>	Hackberry	30'	green, brn	April
<i>Cercis canadensis</i>	Redbud	25'	red, purple	early spring
<i>Chionanthus virginicus</i>	Fringe tree	25'	white	June
<i>Cornus alternifolia</i>	Alternate-leaf dogwood	20'	yellowish white	late spring
<i>Cornus florida</i>	Flowering dogwood	25'	greenish yellow	early spring
<i>Cotinus obovatus</i>	American smoketree	15' -20'	pink to purple	April-May
<i>Crataegus, Hawthorn</i>	Cockspur, Downy, Washinton	25' -30'	white-greenish	Spring
<i>Halesia carolina</i>	Silverbell	35'	white	Spring
<i>Magnolia virginiana</i>	Sweetbay magnolia	25'	white	early summer
<i>Ostrya virginiana</i>	American hop hornbeam	30'	white	April
<i>Oxydendrum arboreum</i>	Sourwood	30'	white	July
<i>Prunus</i>	American Plum, Pin Cherry	20' -30'	white-greenish	Spring

# Shrub Layer

***With a wide range of sizes, evergreen, flowering, berries and fall color, shrubs are essential to the structure of a garden habitat.***



Rose-Gold Pussy Willow  
*Salix gracilistyla* (rose-gold pussy willow) in late winter. At this point, the developing flowers are covered with a protective coat of silvery fur. Photo by Elizabeth Peters.

[https://www.bbg.org/news/what\\_are\\_pussy\\_willows\\_anyway](https://www.bbg.org/news/what_are_pussy_willows_anyway)



## Pollen Specialist Bees by Jarrod Fowler

Roughly 25% of the ~770 species of bee's native to the Eastern United States are pollen specialists.

Pollen specialist associations can mutually benefit both bees and flowers from improved foraging effectiveness and efficiency, and pollination rates, but foraging restrictions may create greater susceptibility to harm from pollination shortages due to habitat degradation or loss, pesticides, and climate change.

Conservation practices can protect native pollen specialist bees from population declines and extinctions, while identically supporting other managed and wild beneficial insects, providing wildlife habitat, regulating pests, offering harvestable products, and bettering aesthetics. Therefore, habitat conservation and enhancement for native pollen specialist bees works synergistically to promote strong environmental, social, and economic sustainability in the Eastern United States.

<b>Latin Name , Common Name</b>	<b>Ht</b>	<b>Color</b>	<b>Bloom Time</b>
<i>Aronia arbutifolia</i> , Red Chokeberry	8'	white	April-May
<i>Aronia melanocarpa</i> , Black Chokeberry	8'	white	April-May
<i>Callicarpa american</i> , American beautyberry	8'	purple	winter
<i>Calycanthus americans</i> , Carolina allspice	8'	red	April-July
<i>Clethra alnifolia</i> , Summersweet	6'	white	July-Aug
<i>Comptonia peregrina</i> ; sweet fern	3' - 6'	white/grn	May-Aug
<i>Diervila lonicera</i> ; Bush Honeysuckle	3.5'	yellow	June-July
<i>Fothergilla gardenii</i> ; Dwarf Fothergilla	3'	white	spring
<i>Gaultheria procumbens</i> ; Teaberry	0.5'	white	April-May
<i>Hamamelis vernalis</i> ; Vernal Witch-hazel	10'	yellow	Jan-March
<i>Hydrangea quercifolia</i> ; Oakleaf Hydrangea	8'	white	mid-summer
<i>Ilex glabra</i> ; Inkberry	4' -6'	white	mid-summer
<i>Ilex verticillata</i> , winterberry	4'	greenish white	June-July
<i>Itea virginica</i> , Virginia sweetspire	2' - 3'	white	May-June
<i>Juniperus virginiana</i> ' Grey Owl Red Juniper	2' - 3'		
<i>Leucothoe fontanesiana</i> , Drooping Leucothoe	2' - 3'	white	
<i>Lindera benzoin</i> , spicebush	6' - 12'	brick red	March
<i>Physocarpus opulifolius</i> , common ninebark	3' -4'	pink	May-June
<i>Rhus aromatica</i> , Gro-Low Sumac	1' - 2'	yellow	April-May
<i>Salix</i> , sandbar willow, silky willow	6' - 10'	white	May-June
<i>Vaccinium angustifolium</i> ; lowbush blueberry	2' - 3'	white	May
<i>Vaccinium corymbosum</i> , Highbush Blueberry	6' 8'	white	May
<i>Viburnums</i> , Mapleleaf, Arrowwood, Nannyberry, Blackhaw		Varies w/ type	

**Plants of all types are essential to the health of our ecosystems. They provide nectar and pollen for insects, and are the basis of every food web.**

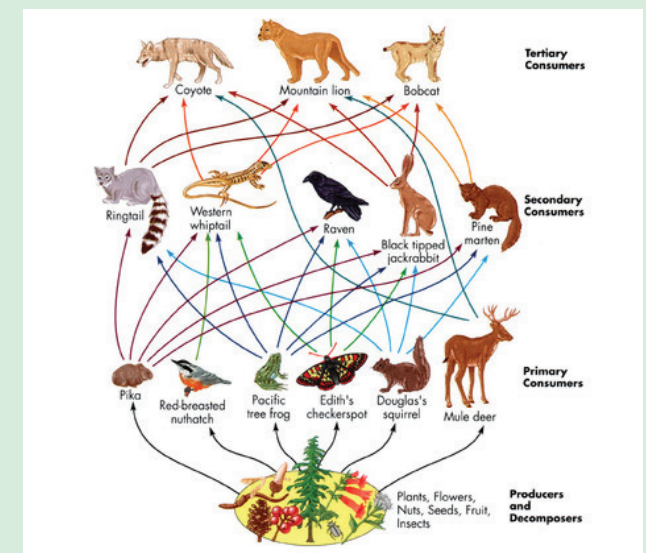


Latin Name , Common Name	Ht	Color	Bloom Time
<i>Agastache foeniculum</i> , anise hyssop	3'	blue	June-Sept
<i>Amsonia hubrichtii</i> 'Blue Ice' , blue star	2' - 3'	blue	April-May
<i>Asclepias tuberosa</i> , butterfly weed	1' - 2.5'	orange	June-August
<i>Aster divaricatus</i> , white wood aster	1' - 2.5'	white	Aug-Sept
<i>Baptisia australis</i> , blue false indigo	3'	blue	May-June
<i>Coreopsis</i> 'Red Satin'; threadleaf coreopsis	1' -1.5'	red	June-August
<i>Echinacea purpurea</i> , purple coneflower	2' - 5'	purple	June-August
<i>Eutrochium dubium</i> – Dwarf Joe Pye	2' - 3'	purple	July-Sept
<i>Gaillardia aristata</i> , indian blanket	0.5' - 1'	yellow/red	May-Sept
<i>Geranium</i> 'Karmina'; Cambridge geranium	0.5' - 1'	pink	May-June
<i>Helenium autumnale</i> ; Helen's flower	3' - 5'	yellow	Aug-Oct
<i>Heuchera americana</i> , coral bells	1' - 2'	white	June-August
<i>Liatris spicata</i> 'Alba' , gayfeather	2' - 3'	purple	July-Aug
<i>Monarda</i> sp . – beebalm - lots of colors	2' - 4'	red, blue	July-Sept
<i>Packera aurea</i> - Golden Groundsel	1' - 2'	yellow	March-May
<i>Penstemon digitalis</i> - Tall Beardtongue	3' -4'	white	April-June
<i>Polystichum acrostichoides</i> - Christmas Fern	1.5' - 2.5'		
<i>Pycnanthemum</i> – Slender Mountain Mint	1' - 3'	white	June-Sept
<i>Rudbeckia hirta</i> , black eyed susan	2' - 3'	yellow	June-Oct
<i>Rudbeckia fulgida</i> , orange coneflower	2' - 3'	orange	June-Oct
<i>Sedum</i> 'Autumn Joy' ; stonecrop	1' - 2'	pink	Sept-Oct
<i>Solidago caesia</i> , blue-stem goldenrod	1.5' - 3'	yellow	Aug-Sept
<i>Stokesia laevis</i> 'Blue Danube' , Stokes aster	1' - 2'	blue	May-July

I cannot overemphasize how important insect herbivores are to the health of all terrestrial ecosystems. Worldwide, 37 percent of animal species are herbivorous insects. These species are very good at converting plant tissue of all types to insect tissue, and as a consequence they are good at providing food-in the form of themselves-for other species. In fact, a large percentage of the world's birds depends entirely on insects to access the energy stored in plants.

If you count all the terrestrial bird species in North America that rely on insects to feed their young, you find that figure to be about 96 percent - in other words, nearly all of them.

## Natures Food Web



<http://teach-learn-explore.weebly.com/miss-loves-blog/food-chains-and-food-webs>

