

Native Plants for Every Garden

Presented by
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Agenda

- A Bit about Native Plants
- Description of Specific Native Plants for Various Garden Conditions:
 - Canopy trees, understory trees, shrubs, vines, perennials for sun, perennials for shade, groundcovers (5 of each)



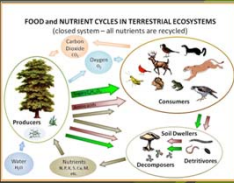
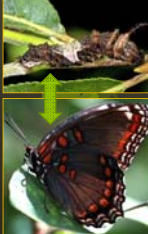
What is a Native Plant?

- Found in Piedmont Region prior to European contact
- Two major waves of introduction of alien plants: European (17th and 18th centuries) and Asian (20th century)
- About 34% of plant species in Pennsylvania are now non-native
- Make sure you get the native species (use botanical name)
- When is a cultivar or hybrid no longer “native”?
 - When it no longer has the beneficial characteristics of the species

Why Native Plants?

- Ecosystem benefits
 - Tied to local ecosystem
 - Greater wildlife value
- Maintenance benefits
 - Better adapted to local conditions
 - Need less care (fertilizer, pest control, water, etc.)
- Alien plants are source of most noxious weeds, invasive plants, and noxious plant diseases/pests

Some thoughts before we begin

- Class focus is on plants with high wildlife value, suitability for residential property, and my experience
- Most plants tolerate some range of conditions but are most successful in specific conditions
- The more we keep plants in their preferred conditions, the less maintenance they require
- Create plant communities



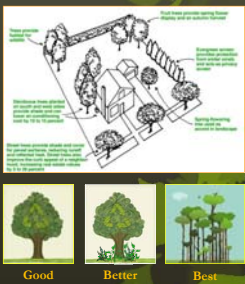
Resources

- Native plant and invasive plant classes on www.marcmradell.com
- Links and Recommended Reading pages on www.marcmradell.com
 - USDA Plants Database with fact sheets & links
 - USFWS *Native Plants for Wildlife Habitat and Conservation Landscaping, Chesapeake Bay Watershed* (P is for Piedmont)
 - Lady Bird Johnson Wildflower Center Native Plant Information Network
 - iConservePA native plant fact sheets




Trees

- Pennsylvania was a forest and still wants to be (plant trees, plant multiple trees)
- Trees generally require less maintenance than other plants
- Can reduce cooling bills (shade) and heating bills (windbreak)




Canopy Trees




- “Shade trees”
- Provide greatest wildlife, cooling, and carbon reduction value per square foot
- Thrive in full sun, saplings may need shade
- 50-100’ high



Oaks (*Quercus*)


- Support 534 species of lepidopteron
- Acorns eaten by many birds, mammals
- Early blossoms for small insects



		
White Oak (<i>Q. alba</i>) Slow grower 80-100’ Average to dry soil	Northern Red Oak (<i>Q. rubra</i>) Medium grower 90’ Average to moist soil	Pin Oak (<i>Q. palustris</i>) Fast grower 60’ Moist to wet soil

Black Cherry (*Prunus serotina*)

- Supports 456 lepidopteron
- Flowers support pollinators
- Cherries eaten by birds and mammals
- Fast grower, 50-75’
- Average to moist soil



Maples (*Acer*)

- Support 285 lepidopteron
- Birds and small mammals eat seeds
- Early blossoms, sap for small insects



		
Red Maple (<i>A. rubrum</i>) Fast grower 50’ Moist to wet soil	Sugar Maple (<i>A. saccharum</i>) Average grower 60-80’ Average to moist soil	Boxelder (<i>A. negundo</i>) Fast grower 50’ Moist to wet soil

Pines (*Pinus*)

- Support 203 lepidopteron
- Birds and mammals eat seeds



	
White Pine (<i>P. strobus</i>) Fast grower 80’ Average to dry soil	Virginia Pine (<i>P. virginiana</i>) Fast grower 40’ Dry soil

Hickories (*Carya*)

- Support 200 lepidopteron
- Nuts very important for squirrels and chipmunks






Pignut Hickory
(*C. glabra*)
Medium grower
50'
Various soils

Shellbark Hickory
(*C. luciniosa*)
Slow grower
60-80'
Average to dry soil

Some Other Canopy Trees

- Eastern Red Cedar (*Juniperus virginiana*)
- Black Tupelo (*Nyssa sylvatica*)
- America Beech (*Fagus grandifolia*)
- Ash (*Fraxinus americana, F. pennsylvanica*)
- Sweetgum (*Liquidambar styraciflua*)
- Tulip Tree (*Liriodendron tulipifera*)
- American Sycamore (*Platanus occidentalis*)
- Basswood (*Tilia americana*)
- American Elm (*Ulmus americana*)
- American Chestnut (*Ulmus americana*)
- Canadian Hemlock (*Tsuga canadensis*)

Understory Trees

- Usually grow under taller trees
- Part sun to shade
- Flowering trees, fruit trees
- 15-30'
- Provide most of soft mast





Willows (*Salix*)

- Support 455 lepidopteron
- Fruit capsules eaten by birds and small mammals
- Early source of nectar for










Black Willow
(*S. nigra*)
Fast grower
30'
Moist to wet soil

Pussy Willow
(*S. discolor*)
Fast grower
20'
Moist to wet soil

Prairie Willow
(*S. humilis*)
Fast grower
6-12' (shrub)
Dry to wet soil

Sweet Crabapple (*Malus coronaria*)

- Support 311 lepidopteron
- High usage by pollinators
- Fruit eaten by birds and mammals
- Showy, fragrant flowers April-May
- 20', fast grower
- Average to moist soils

Flowering Dogwood (*Cornus florida*)

- Supports 115 lepidopteron
- High-fat berries for birds, mammals
- High nectar production
- Showy flowers April-May
- Dry to moist soil
- 15-30', average growth rate






Serviceberry (*Amelanchier*)

- Support 119 lepidopterons
- Special value to native bees
- Fruit eaten by birds, mammals
- Showy flowers April-May











Downy serviceberry
(A. arborea)
Fast grower
15-25'
Dry to moist soil

Canadian Serviceberry
(A. canadensis)
Fast grower
35-50'
Moist to wet soil

Birches (*Betula*)

- Support 413 lepidopterons
- Fruit capsules for birds, mammals
- Interesting bark, fall color



River Birch
(B. nigra)
Medium to fast grower
30-50'
Moist to wet soil

Cherry Birch
(B. lenta)
Medium to fast grower
50-75'
Moist to dry soil

Some Other Understory Trees

- Paw-paw (*Asimina triloba*)
- Eastern redbud (*Cercis canadensis*)
- Cockspur hawthorn (*Crataegus crus-galli*)
- Common Persimmon (*Diospyros virginiana*)
- American Holly (*Ilex opaca*)
- Sweetbay magnolia (*Magnolia virginiana*)
- Pin Cherry, Choke Cherry, Wild Plum (*Prunus* spp.)
- Sassafras (*Sassafras albidum*)









Shrubs

- Multi-stemmed
- 4-20'
- Important edge and understory plants
- Hedge rows, connectivity between larger habitats
- Well-suited for home gardens




Blueberries (*Vaccinium*)

- Support 288 lepidopterons
- Good source of nectar
- Berries for birds, mammals
- Acidic soils

Lowbush blueberry
(V. angustifolium)
1-2'
Dry to moist soil
Sun to part sun

Highbush blueberry
(V. corymbosum)
4-8'
Dry to wet soil
Sun to shade

Roses (*Rosa*)

- Support 139 lepidopterons
- Showy flowers, June
- Hips for birds, mammals






Swamp Rose
(R. palustris)
4-8'
Moist to wet soil
Sun to shade

Pasture Rose
(R. carolina)
3'
Dry to moist soil
Sun to part sun

Dogwoods (*Cornus*)

- Support 115 lepidopterons
- High-fat berries for birds, mammals
- High nectar production
- Showy flowers April-May







<p>Gray Dogwood (<i>C. racemosa</i>) 6-12' Dry to moist soil Sun to shade</p>	<p>Silky Dogwood (<i>C. amomum</i>) 6-12' Moist to wet soil Sun to part sun</p>	<p>Red Osier Dogwood (<i>C. sericea</i>) 6-12' Moist soil Part shade</p>
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Hollies (*Ilex*)

- Support 34 lepidopterons
- Berries for birds, mammals
- Nectar for pollinators, June-July
- Male and female plants








<p>Winterberry, deciduous (<i>I. verticillata</i>) 6-12' Moist to wet soil Sun to shade</p>	<p>Inkberry, evergreen (<i>I. glabra</i>) 6-10' Dry to moist soil Sun to shade</p>
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Viburnums (*Viburnum*)

- Support 97 lepidopterons
- Important nectar source
- High-fat content in berries
- Good fall color





<p>Maple-leaved Arrowwood (<i>V. acerifolium</i>) 3-6' Dry to moist soil Sun to shade</p>	<p>Southern Arrowwood (<i>V. dentatum</i>) 10-15' Dry to wet soil Sun to shade</p>	<p>Possum-haw Viburnum (<i>V. nudum</i>) 6-20' Moist to wet soil Sun to shade</p>	<p>Witherrod (<i>V. nudum</i> s. <i>cassanopsis</i>) 6-12' Dry to wet soil Sun to partial shade</p> <p>Black Haw (<i>V. prunifolium</i>) 12-24' Dry to wet soil Sun to shade</p>
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Some Other Shrubs

- Smooth Alder (*Alnus serrulata*)
- Devil's Walking Stick (*Aralia spinosa*)
- New Jersey Tea (*Ceanothus americanus*)
- Buttonbush (*Cephalanthus occidentalis*)
- American Hazelnut (*Corylus americana*)
- Witch Hazel (*Hamamelis virginiana*)
- Smooth Hydrangea (*Hydrangea arborescens*)
- Mountain Laurel (*Kalmia latifolia*)
- Spicebush (*Lindera benzoin*)
- Chokeberry (*Photinia* spp.)
- Ninebark (*Physocarpus opulifolius*)
- Rhododendrons, Azaleas (*Rhododendron* spp.)
- Sumacs (*Rhus* spp.)
- Brambles (*Rubus* spp.)
- Common Elderberry (*Sambucus nigra*)
- Steeplebush (*Spiraea tomentosa*)

Vines





<p>Trumpet Vine (<i>Campsis radicans</i>) 20-35', dry to moist soil Sun to part sun Hummingbirds</p>	<p>American Bittersweet (<i>Celastrus scandens</i>) 6-20', dry to moist soil Sun to shade Berries for birds, mammals</p>	<p>Trumpet Honeysuckle (<i>Lonicera sempervirens</i>) 6-12', dry to moist soil Sun to part sun Hummingbirds, pollinators</p>
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<p>Virginia Creeper (<i>Parthenocissus quinquefolia</i>) 25-35', dry to wet soil Sun to shade Butterflies, birds</p>	<p>Virgin's Bower (<i>Clematis virginiana</i>) 6-12', dry to moist soil Sun to shade Fragrant</p>
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Perennials for Sun, Dry Soil





<p>Butterfly Weed (<i>Asclepias tuberosa</i>) 1-3' Orange, May-July Butterflies, pollinators</p>	<p>Black-Eyed Susan (<i>Rudbeckia hirta</i>) 1-3' Yellow, June-October Butterflies, birds</p>	<p>Sundrops (<i>Oenothera perennis</i>) 1-3' Yellow, May-August Birds, pollinators, hummingbirds</p>
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<p>Wild Bergamot (<i>Monarda fistulosa</i>) 1-5' Purple, June-September Butterflies, hummingbirds</p>	<p>Little Bluestem (<i>Schizachyrium scoparium</i>) 2-4' Fall color Butterflies, cover</p>
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Perennials for Sun, Moist Soil

 Swamp Milkweed (<i>Asclepias incarnata</i>) 4-6' Mauve, May-July Butterflies, pollinators	 New England Aster (<i>Symphyotrichum norae-angliae</i>) 1-6' Purple, August-October Butterflies, birds	 Joe-Pye Weed (<i>Eupatorium fistulosum</i>) 1-10' Mauve, July-October Birds, pollinators, butterflies
 Cardinal Flower (<i>Lobelia cardinalis</i>) 2-4' Red, July-October Butterflies, hummingbirds	 Garden Phlox (<i>Phlox paniculata</i>) 2-5' Various Butterflies	

Perennials for Shade, Dry Soil

 Wild Columbine (<i>Aquilegia canadensis</i>) 1-3' Red, April-July Hummingbirds, butterflies, pollinators	 Wild Geranium (<i>Geranium maculatum</i>) 1-2' Purple, April-July Butterflies, birds, pollinators	 Wild Bleeding Heart (<i>Dicentra eximia</i>) 1.5-2' Pink, April-September Pollinators, hummingbirds
 Evergreen Woodfern (<i>Dryopteris intermedia</i>) 2-3' Evergreen	 Alumroot (<i>Heuchera americana</i>) 1-3' Various, April-July Pollinators, foliage	

Perennials for Shade, Moist Soil

 Jacob's Ladder (<i>Polemonium reptans</i>) 1-2' Blue, April-June Pollinators, neat foliage	 Great Solomon's Seal (<i>Polygonatum commutatum</i>) 2-4' White, April-June Birds, pollinators, neat foliage	 Wild Blue Phlox (<i>Phlox divaricata</i>) 1-2' Lilac, May-June Butterflies, fragrance
 Turtlehead (<i>Chelone glabra</i>) 1-3' White-pink, Jul-Sept Butterflies, hummingbirds	 Northern Lady Fern (<i>Athyrium filix-femina</i>) 1-3' Shelter	

Groundcovers

 Canadian Wild Ginger (<i>Asarum canadense</i>) 0.5' Brown, April-May Moist soil, Shade/part sun Host plant for Pipevine Swallowtail Butterfly	 Moss Phlox (<i>Phlox subulata</i>) 0.5' Pink, White, Lilac April-June Sun, dry soil Butterflies, pollinators	 Allegheny Spurge (<i>Pachysandra procumbens</i>) 0.5-1' White, April Moist soil, Shade/part sun Pollinators, fragrance
 Foamflower (<i>Tiarella cordifolia</i>) 0.5-1' White, April-July Pollinators	 Cinnamon Fern (<i>Osmunda cinnamomea</i>) 2-5' Sun to shade, moist to wet Birds, mammals	

Containers

 Black-Eyed Susan (<i>Rudbeckia hirta</i>) 2-3', Sun to part sun Dry to moist soil Yellow, June-October Butterflies, birds	 Wild Bleeding Heart (<i>Dicentra eximia</i>) 1.5-2', Shade/part shade, Dry to moist soil Pink, April-September Pollinators, butterflies, hummingbirds	 Threadleaf Coreopsis (<i>Coreopsis verticillata</i>) 1-2', Sun to part sun Dry to moist soil Yellow, June-October Pollinators, butterflies
 Alumroot (<i>Heuchera americana</i>) 1-3', Shade/part shade Dry to moist soil Various, April-July Pollinators, foliage	 Moss Phlox (<i>Phlox subulata</i>) 0.5' Pink, White, Lilac April-June Sun, dry soil Butterflies, pollinators	

Questions?

"Thanks for planting natives!"

		
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