Trees and Shrubs for Sustainable Built Environments
HORT 306 Fall 2018

Plant List 10
Small Evergreen Trees
& Large Evergreen Shrubs II

Reading Assignments
In Landscape Plants For Texas And Environs, Third Ed.
– Intro materials on shrubs (p. 682, 807)
– Family descriptions for:
  Apocynaceae (p. 68), Cupressaceae (p. 78),
  Fabaceae (p. 82), Hamamelidaceae (p. 84),
  Myricaceae (p. 90), Pinaceae (p. 94),
  Pittosporaceae (p. 95), Podocarpaceae (p. 96),
  Rosaceae (p. 99), Taxaceae (p. 104), Theaceae (p. 104)
– Descriptions for individual species
  See page listings on Plant List 10 Handout
  (also available under lists on course website)

Sheared / Shorn Hedges = Man’s Need To Subdue Nature

Taxus spp. Yews
• Highly popular dark green needled evergreen shrubs in northern climates; extensively utilized
• Most forms are spreading, some upright, but most often sheared; best in shade in warmer climates, sun or shade in cooler regions
**Taxus spp.**

Yews

- Poorly adapted to most of Texas, can be useful in limited locations in northeast portions of our region
- Avoid high pH or poorly drained soils
- Classic shrubs for formal hedges & topiary

**Podocarpus macrophyllus var. maki**

Maki or Japanese Yew

- Narrowly upright oval crowned dense dark evergreen shrub or small tree
- Attractive shreddy bark; red fruit on females; warm climate alternative to *Taxus spp.*
- Effective shaped or unaltered

**Podocarpus macrophyllus**

- Limited cold tolerance, zones 8a (7b) to 13, several related species can be useful in USDA z. 9-13 landscapes
- Tends to decline in heavy soils
- Slow growth can be frustrating

**Cephalotaxus harringtonia**

Japanese Plum-Yew

- USDA z. 6(5b) to 9 substitute for *Taxus spp.*, but with better heat tolerance
- Dark glossy evergreen needled foliage
- Mostly medium shrubs with spreading habits (4' - 6' tall), few less commonly encountered upright forms 8’ to 10’ (25’)
- Moist acidic soils, part to moderate shade
- Slow growers, dioecious, plum-like fruit
**Juniperus chinensis**  
Chinese Juniper

- Evergreen awl or scale foliaged shrub to small tree adapted USDA z.4 (3) - 13
- Tolerates nearly any conditions except prolonged wet soils or shade
  - *Phomopsis* blight, bagworms and spider mites can be problems
  - Longevity is cultivar dependent

**Bagworms**

**Juniperus chinensis**  
Chinese Juniper

- Valuable shrub for diversity of sites / uses, but often over planted or improperly sited
  - Pollen can induce allergic reactions in some people
  - If shaped, start young

**Platycladus orientalis**  
Oriental Arborvitae

- Evergreen oval to pyramidal large shrub/small tree
  - Light/medium green becomes slightly yellow-green in winter; often narrow in youth, spreading at maturity
- Extremely site adaptable, full sun to part shade, moist to dry, acid to alkaline soils, salt tolerant

**Platycladus orientalis**  
Oriental Arborvitae

- Frequently planted as a foundation plant, but becomes too large 10'-25' (30'); tends to break up in snow & ice loads; USDA z. 6-10
  - Smaller cultivars should be used when space is limiting
- Bagworms and spider mites are significant pests
**Pinus mugo  Mugo Pine**

- A dwarf shrub to large tree, 3' to 75' tall
- Mostly small to medium shrub forms are available in USA nursery trade; best to use known cultivars
- Adaptable but highly variable species
  - Acidic to moderately alkaline soils, some salt spray tolerance, very cold tolerant, USDA zones 3 (2b) - 7

**Myrica cerifera**

- Medium shrubs/small trees, evergreen USDA zones 8 - 13, deciduous z. 7, under-utilized
- Foliage with bayberry scent; natural N fixation

**Myrica cerifera**

- Dioecious, attractive fragrant waxy silver-gray fruit on female plants
- Few limitations: borers, somewhat leggy, and brittle branches; good limbed-up as a small tree

**Pinus mugo  Mugo Pine**

- Vigorous in only zone 7 & cooler, languishes in z. 8
- Highly variable form, use as foundation planting, low screen, massing, shrub borders, highway plantings, topiary work, large containers
| **Myrica pussilla**  
Dwarf Waxmyrtle |
<table>
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<tr>
<td>• Smaller compact version of <em>Myrica cerifera</em>; bit lighter green in color</td>
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<tr>
<td>• Perhaps more drought tolerant than <em>Myrica cerifera</em>, good cold tolerance, USDA z. 7 - 9</td>
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<tr>
<td>• Good medium shrub, stays more in bounds than the <em>Myrica cerifera</em></td>
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<td>• Should be promoted more in the trade</td>
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| **Myrica pensylvanica**  
Northern Bayberry |
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| • Northern counterpart to *M. cerifera*  
  – More shrubby, less tendency to tree form |
| • Deciduous to semi-evergreen |
| • More showy in fruit than *M. cerifera* |
| • Tolerates infertile sites; N fixing |
| • Useful USDA zones 4 (3b) to 7a and perhaps further south? |

| **Pittosporum tobira**  
Japanese Pittosporum |
<table>
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<tr>
<td>• Uniform rounded dense mound of evergreen foliage, variable 3’ to 15’ tall</td>
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<td>• Medium shrub to small tree with an umbrella-like crown, foliage confined to branch tips; fragrant flowers</td>
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<td>• Dark lustrous green or creamy white variegated leaves; variable size plants</td>
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| **Pittosporum tobira**  
Japanese Pittosporum |
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<tr>
<td>• Good branch structure and light tan to silver-gray trunk</td>
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<td>• Limited cold hardiness, USDA z. 8-13; intolerant of poor drainage; scale insects are problematic</td>
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<td>• Tolerates soil &amp; foliar salts, high pH soils, &amp; high temperatures</td>
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**Ternstroemia gymnanthera**
*Japanese Ternstroemia*
- Rounded to upright oval evergreen shrub typically 4’ to 8’ (10’) tall; may be sold as *Cleyera japonica*
- Bright green new growth matures to lustrous dark green; fairly dense canopy without pruning
- Adapted USDA hardiness zones 7b (7a) to 10
- Needs acidic soils with steady moisture; best I-45 east, some spots in Central TX
- Best in morning sun with afternoon shade
- General purpose shrub for foundation plantings, woodland edges, low to medium background

**Eriobotrya japonica**
*Japanese Loquat*
- Broad-leaved evergreen shrubs or small trees, 10’ to 15’(30’), USDA z. 8b(8a) - 13
- Loose well drained moist acidic soils are best; avoid poorly drained locations
- Coarse leaves not suitable for shearing
- Tropical effect, fragrant flowers, edible fruit
- Limitations: fireblight, cold tolerance, messiness, salinity
- Screening, backgrounds, home orchards, Asian garden

**Prunus caroliniana**
*Cherry-Laurel*
- Large, 15’ - 20’ tall, upright oval to rounded evergreen shrub / small tree; white flowers; excellent evergreen screen for USDA z. 7-10
- Intolerant of poor drainage and salinity, becomes chlorotic on high pH soils, leaf spots can be troublesome; foliage is poisonous
- Best on woodland edge, nice background screen for shady sites

**Photinia × fraseri**
*Red Tip Photinia*
- Large broad-leaved evergreen 10’-15’ tall useful in USDA zones 7 – 10 landscapes with low RH
- Primary feature is red newly emerged foliage, flowers in late spring
- Over-planted, suggest choosing other taxa where conditions permit
**Photinia × fraseri**  
Red Tip Photinia  
- Tolerant of various soil types  
  - Best in sun but tolerates shade  
  - Has a high N requirement  
  - Good heat & drought tolerance  
  - May develop chlorosis on infertile soils  
  - *Entomosporium* leaf spot in high RH, cotton root rot, and aphids are significant problems

**Photinia serratifolia**  
Chinese Photinia  
- Larger (15'-20') & coarser, but useful over a similar range as *P. × fraseri*, USDA zones 7(6b)-13  
- One of *P. × fraseri* hybrid’s parental species  
- Not as susceptible to *Entomosporium* leaf spot  
- Susceptible to cotton root rot, may escape cultivation; does not tolerate shearing well

**Pyracantha coccinea**  
Scarlet Firethorn  
- Upright evergreen medium / large shrub, 6'-10' tall  
- Creamy white spring flowers, but malodorous  
- Excellent fall / winter red, orange, or yellow fruit  
- Somewhat particular as to soils / siting, fireblight, cotton root rot, & thorns may be problematic  
- Espaliers, screens, hedges, barriers; z. 6(5)-10(11)

**Pyracantha koidzumii**  
Formosa Firethorn  
- Larger, coarser textured, more heat tolerant, but less cold tolerant than *P. coccinea*, hardy in USDA z. 8 (7b) - 13  
- Hybrids, with *P. coccinea*, like ‘Mohave’, are popular regionally
**Vauquelinia angustifolia**

Chisos Rosewood

- A medium shrub to small tree, 8’ to 12’ (20’) tall, hardy to USDA z. 7 – 9 (10)
- Handsome dark glossy evergreen leaves
- Fragrant cyme-like clusters of small white flowers in late spring

**Loropetalum chinense**

Chinese Fringe Flower

- Large 6’ to 8’ (12’) evergreen shrub, useful in USDA zones 8 (7b) -10
  - Irregularly upright oval to rounded crown; tolerates pruning well
  - Blue-green, green, to red-bronze foliage, medium-fine in texture
- Flowers, strap-like white to pink petals, mostly spring, occasionally in fall/winter

**Vauquelinia angustifolia**

Chisos Rosewood

- Very heat, wind, & drought tolerant, most any well drained soil, good West TX & SW US landscape shrub
- Fireblight can be serious in humid climates

**Loropetalum chinense**

Chinese Fringe Flower

- Problems with salty soils/water & chlorosis on high pH soils
- Hedges, screens, large containers
- Mature size is often underestimated

Interveinal Chlorosis
**Nerium oleander**  
Common Oleander

- Medium/large, 8' - 10' (20') teardrop-shaped suckering evergreen shrubs, sparse branching
- Beautiful late spring / early summer flowers; some with recurrent bloom
- Tolerates salt spray, drought, heat, soil salts, various soil pH, and seasonally poor drainage

**Caution all plant parts are very poisonous!!!**
- Cultivars are highly variable in cold hardiness, z. 7b to 9a, heat to z. 13
- Aphids, scale, bacterial wilt (FXIB!), aggressive roots

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**Rhododendron spp.**  
Azaleas or Rhododendrons

- America’s favorite genus of shrubs
  - Small to large (2' - 10'+) broad-leaved evergreen shrubs with rounded crowns, variably hardy z. 4 - 9
  - “Azaleas” taxa tend to be smaller leaved, deciduous to evergreen, smaller clusters of blooms & finer textured growth habit

- “Rhododendrons” taxa tend to have larger leaves that are mostly evergreen, and fewer larger clusters of blooms, somewhat coarser growth habit
  - Require moist acidic soils, best only in East TX; use Rhododendron taxa in cooler climates
  - Most commercial taxa are hybrids, wide array of spectacular spring flower colors, a few in summer

**Chlorosis on high pH soil**

**Winter injury**
**Sophora secundiflora**
**Texas Mountain Laurel**

- Medium / large evergreen shrub / small tree
- Sun to part shade, requires good drainage, z. 8 - 10, Texas native, best on alkaline soils

**Sophora secundiflora**
**Texas Mountain Laurel**

- Dark glossy green foliage, racemes of blue-purple to pink-purple spring flowers
- Strong fragrance, grape bubble-gum scent
  - Poisonous bright red seeds, used in crafts
  - Drought, heat, salt, & wind tolerant

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**Questions / Comments?**

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