Reading Assignments
In *Landscape Plants For Texas And Environs, Third Ed.*

- Intro materials on trees (p. 681, 997) and shrubs (p. 682, 807)
- Family descriptions for:
  - Anacardiaceae (p. 67), Caprifoliaceae (p. 74), Celastraceae (p. 75), Hamamelidaceae (p. 84), Magnoliaceae (p. 87), Oleaceae (p. 92), Punicaceae (p. 98), Rosaceae (p. 99), Rubiaceae (p. 100), Salicaceae (p. 100), Sapindaceae (p. 101), Verbenaceae (p. 106)
- Descriptions for individual species
  See page listings on Plant List 6 Handout (also available under lists on course website)

Trees and Shrubs for Sustainable Built Environments
HORT 306 Fall 2018

Plant List 6
Small Deciduous Trees
And Large Deciduous Shrubs II

Cephalanthus occidentalis
Common Buttonbush

- Deciduous native large shrub or small tree, 12’ to 15’ (20’) tall
  - Irregular rounded form
  - Requires regular pruning
  - Little fall color/winter assets
- Interesting season long creamy white ball-shaped flowers are main asset
  - Attracts bees, good or bad?

Cephalanthus occidentalis
Common Buttonbush

- Best used in wet areas, but will tolerate drier sites
- Wide native range, useful in USDA hardiness z. 5-9
- Western taxa may tolerate more drought & tend to have thicker leaves; member of *Rubiaceae*
- Bee / butterfly plant; excellent potential for seasonally wet areas, rain gardens, along water courses and near water features
Unanticipated Climate Change Consequences?

What's wrong with my Buttonbush?

Chionanthus retusus
Chinese Fringetree

- Tardily deciduous large shrub / small tree, 15' - 25' (40') tall; may be medium tree; hardy in USDA z. 6 (5b) to 9 (10a)
- Dark lustrous leathery leaves; maybe yellow fall color late in the season
- Interesting multi-trunk or single stem
- Handsome pealing gray-brown bark when young, corky in old age
- Handles a wide range of soil types, but hard to propagate & slow floppy grower

Chionanthus retusus ‘Tokyo Tower’
Tokyo Tower Chinese Fringetree

- Showy fragrant white flowers in terminal panicles, polygamo-dioecious
- Good stem architecture for night lighting
- Specimens, patio or deck areas, large planters, small street trees
- Chilling requirements are variable

Example of variation in chilling requirements
**Chionanthus virginicus**
*White Fringetree*
- Handsome native counterpart to *C. retusus*
- Tardily deciduous large shrub / small tree, 10' to 15' (35') tall, hardy z. 3-9
- Slow growing multi-trunk irregular rounded canopy
- Fragrant white flowers with strap-like petals, showy but not as much as with *C. retusus*
- Native to East Texas
- Woodland edge type tree
- Salt damage & chlorosis on high pH soils
- Emerald ash borer issue?

**Syringa vulgaris**
*Common Lilac*
- Medium to large, 4' to 8' (12') tall, deciduous suckering shrub with an irregular oval to rounded crown
- Green to blue green foliage, large panicles of classically fragrant spring flowers, white, lilac, to dark magenta-pink
- With proper cultivar selection, tolerates cold to USDA cold hardiness zone 4

**Syringa vulgaris**
- Heat & inadequate chilling z. 7 & 8
- Shrub border, spring accent, popular in north; cut flower garden
- Poor choice in southern states, lack of chilling serious problems with powdery mildew fungi and lilac borers; coarse in winter

**Crataegus marshallii**
*Parsley Hawthorn*
- Small deciduous flat-topped horizontally branched tree, irregular form in understory setting
  - Foliage green to blue-green, yellow / orange red fall color; sometimes drought deciduous
  - Attractive red to red-orange shiny fruit in small clusters, effective autumn to early winter; good wildlife food
  - White apple blossom-like flowers in spring
  - Bark on trunk can become shredded, mildly interesting
  - Cedar-hawthorn rust and fireblight are main limitations
**Crataegus phaenopyrum**
Washington Hawthorn

- Similar to *C. marshallii*, but more common in Midwest & NE USA
- Not as well adapted south of USDA zone 7, but more cold hardy than *C. marshallii*; *Crataegus* often referred to as Mayhaws

**Malus spp.**
Flowering Crabapples

- Variable group of mostly small, sometimes medium size, deciduous trees
  - Mostly spreading rounded crowns, some narrow upright, weeping forms, and dwarfing rootstocks are available
  - Variable cold hardiness from z. 6 to 4; best in z. 8a & cooler, inadequate chilling z. 8+
  - Most with attractive white to pink spring flowers
  - Fruit tiny to 2” diameter, some cultivars/species have edible fruit, sometimes attractive, yellow, orange, red

**Malus ioensis**
Prairie Crabapple

- *Malus ioensis var. texana* native to portions of Hill Country
- Small deciduous 20’ to 25’ tree with a short trunk or multi-stem tree
- White flushed pink spring flowers
- Small 1 to 1½” diameter bitter yellow-green fruit
- Fall color a variable yellow-green to yellow
- Subject to usual diseases, but tolerates high pH soil, heat, low chill conditions
**Malus × domestica**  
*Apple*

- Medium, 25’ - 35’, deciduous tree, short trunk, spreading rounded crown, lots of spur growth
- Source of commercial apples; may be on dwarfing rootstocks for size control

**Prunus mexicana**  
*Mexican Plum*

- Small deciduous tree, upright oval crown, 15’ - 20’
- Fragrant white flowers in spring
- Drought & soil pH tolerant, z. 7-9
- Crabapple substitute for south
- Cotton root rot tolerant; TX native

**Malus × domestica**  
*Apple*

- Extremely important temperate zone fruit crop
  - White to pink flowers and edible fruit, but most cultivars require several pesticide applications
  - Often inadequate chilling in TX & Deep South
  - Not particularly desirable in home landscapes, high maintenance, messy fruit, fairly short-lived as an ornamental
  - Several limiting diseases/pests (see textbook), cotton root rot is a major limitation in our region

**Prunus persica**  
*Peach*

- Small deciduous fruit tree, 5’ - 15’ (30’) tall
- Source of commercial peaches & nectarines
- Cultivar performance varies throughout the USA, consult local nursery professional / extension agent for best local selections
- Very attractive white to pink-red single or double spring flowers
- Use in zones 5b to 9 (low chill types z. 8/9)
**Prunus persica**

**Peach**

- Short-lived, many disease and pest problems; borers & gummosis
- **Caution** all portions of most *Prunus spp.* aside from fruit pulp and skin contain cyanide-producing compounds, eat only the flesh or skin of fruit
- Remove wilted specimens from pastures
- Cling vs. freestone
- Red foliage types

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**Euonymus alatus**

**Winged Euonymus**

- Medium / large deciduous shrubs, 8' - 12' (20'); adaptable to a range soils
- Valued for its fantastic red fall color
- Architectural + = horizontal branching / winged stems; better when not shorn
- Widely used in Northern USA (z. 4), less vigorous Southern USA (z. 8+), best in northern third of Texas
- General purpose shrub; layered look

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**Hamamelis spp.**

**Witchhazels**

- Medium to large, 8' to 12', deciduous shrubs
  - With proper selections suitable to USDA z. 4 - 9
- Valued for off-season fragrant flowering
  - Strap-like petals, yellow, orange, to red
  - Fall to spring depending upon the taxon

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**Hamamelis spp.**

**Witchhazels**

- Best with moist acidic soils, intolerant of salts
- Hedges, screen, naturalizing, fragrance or scent gardens, winter accent, medicinal uses
**Magnolia × soulangiana**  
**Saucer Magnolia**
- Deciduous round shrub / small tree, not for small locations, out-grows a site quickly, hardy z. 5 – 8a(8b)
- Large showy saucer-shaped flower in early spring, purple-pink outside, white to pink inside
  - Often damaged by late frost, moderately coarse textured

**Magnolia × soulangiana**  
**Saucer Magnolia**
- Susceptible to foliar salt damage & iron chlorosis on high pH soils
- Spectacular in flower, so-so rest of year
- Suffers from heat / high pH soils in Central / West Texas
- Often insufficient winter chilling in zones 8b/9a
- Numerous hybrid cultivars

**Magnolia stellata**  
**Star Magnolia**
- Deciduous medium shrub / small tree, cold hardy z. 4b, suffers in heat of z. 8b / 9
- Spectacular white flowers in early spring
- Flowers usually damaged by frost, prone to chlorosis on high pH soils
- Essentially serves as a smaller version of *M. × soulangiana*

**Punicaceae**  
**Pomegranate Family**
- A monogenic old world dicotyledonous family
  - 1 genus containing 2 species
  - Deciduous woody shrubs or small trees
- Perfect flowers with fused sepals forming a persistent succulent calyx tube which forms the rind of the fruit
- Fruit are classic pomegranate of antiquity
- Steeped in legend and lore; an integral part of ancient Greek and Indian cultures
- Genus *Punica* is common in our landscapes
**Punica granatum**

**Pomegranate**
- Larger 8’ to 10’ (12’) suckering deciduous shrub, hardy to z. 8(7b) - 11
- Unique orange, red-orange, white flowers, spring to frost, fleshy buds
- Edible pomegranates, fleshy red-orange, globose, variable quality
- Wide tolerance to soils, exposures, pH, salts, & drought; yellow fall color

**Punica granatum var. nana**

**Dwarf Pomegranate**
- Miniature version of *P. granatum*, 2’-4’ (8’) tall
- Can be used as a subshrub in z. 6b – 7, shrub z. 7 -10
- Single flowers, profuse fruit set

**Rhus glabra**

**Smooth Sumac**
- Small moderately coarse textured tree / large shrub
- Foliage in umbrella-shaped crown, 10’ - 15’ tall
- Outstanding red fall color even in warm temperate regions, panicles of red drupes on female plants
- Tends to form colonies from suckers, hardy in USDA z. 4 (3) - 9

**Rhus glabra**

**Smooth Sumac**
- Any sunny site not permanently wet
- Can be very weedy
- Naturalizing, bank stabilization, highway plantings, wildlife food
**Rhus lanceolata**  
**Prairie Flameleaf Sumac**
- More refined than *R. glabra*
- Excellent fall color
- Bit less suckering than *R. glabra*, but it can still be weedy in manicured settings
- Tolerant of heat, drought, & shallow limestone soils
- A Texas native, probably useful in USDA z. 6 - 9
- Somewhat short-lived, needs well drained soils

**Salix matsudana**  
**Hankow Willow**
- A tardily deciduous small to medium size tree of somewhat variable habit, 20’ to 50’ tall, USDA zones 5 - 9, but suffers in heat of 8 – 9; usually small tree in TX
- ‘Tortuosa’, Dragon’s Claw Willow, is a small tree valued for its contorted stems, used in commercial floristry
- ‘Umbraculifera’, known as the Globe Willow, is a mop-headed tree used as a small, but temporary shade tree
- Prone to a large number of disease & pest problems, making them very, very short-lived in the landscape

**Salix discolor**  
**Pussy Willow**
- An irregular upright medium to large deciduous shrub
- Best reserved for use in cooler climates, USDA z. 4 - 7, it survives in z. 8 - 9a, but does not thrive; raggedly coarse
- Valued only for its large shellacked buds that open to reveal fuzzy football-shaped catkins (reminiscent of big fuzzy bugs) in early spring
- Used in commercial floristry

**Sambucus canadensis**  
**American Elderberry**
- A coarse textured spreading irregular deciduous shrub, 3’ to 10’ tall
- Often broader than tall
- Showy white spring flowers in large flat clusters
- Edible blue-black fruits in late spring / early summer; best if cooked or processed as wines, jams, or jellies
- Hardy with proper provenance from USDA zones 4 to 9 (10)
- Good for naturalizing along streams, rain gardens, and near water features
**Sambucus mexicana**  
**Mexican Elder**
- Small picturesque semi-evergreen tree, 15’ - 20’ tall
- Picturesque thick contorted stems, spreading rounded crown, resembles big bonsai plant
- Creamy white late winter to early summer flower clusters
- Tends to grow late in autumn; poor fall acclimation can result in cold damage in USDA z. 8; short-lived; can become weedy; brittle wood
- Intolerant of poor drainage, but needs water

**Ungnadia speciosa**  
**Mexican Buckeye**
- Large deciduous multi-trunk shrub / small tree, 10’ - 12’ (30’)
  - Not a true Buckeye (Aesculus spp.), called buckeye due to resemblance of seed to Aesculus spp., poisonous fruit
- Interesting spring pink to rose flowers, overall effect resembles that of *Cercis canadensis*
  - Unfortunately may be concurrent with foliage emergence

**Ungnadia speciosa**  
**Mexican Buckeye**
- Texas native, excellent heat & drought tolerance; useful in USDA z. 8(7) - 9
  - Requires moderately good drainage
- Good naturalizing plant, xeriscapes, shrub borders
- Can be limbed up into small patio tree
- Often has good yellow fall color

**Vitex agnus-castus**  
**Chaste Tree**
- Large shrub / small tree, 10’ - 15’, z. 7 (6b) to 9, subshrub or herbaceous perennial in z. 6a (6b)
  - Rounded mound, can be limbed up into tree form
  - Interesting fine textured gray-green palmate leaves
  - Requires frequent pruning, ratty with age / neglect
  - Site adaptable, responsive to supplemental irrigation / fertility; can become weedy at times
Vitex agnus-castus
Chaste Tree

- 3” - 6” (18”) spikes of blue, purple, pink, white flowers
- Flowers peak in early summer, then flush sporadically until frost; attracts bees / butterflies
- Good for low input landscapes / highway plantings
- Interesting trunk architecture when limbed up

Questions / Comments?

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