


*Grevillea victoriae* (PROTEACEAE)

royal grevillea


Australia

	Leaves	Flowers	Fruit	Other
	<p>Alternate, Simple Linear to lanceolate Entire margin Dark green above, pale below</p>	<p>Cluster of red-orange flowers No petal 4 sepals joined at base and tube-like, orange &amp; fuzzy Sepals roll back to expose prominent style 4 stamens, attached to tips of sepals</p>	<p>Woody capsule</p>	<p>Evergreen shrub Several cultivars are hardy here Hummingbird pollinated</p>

*Callistemon* (MYRTACEAE)

bottle-brush plant


Australia and New Caledonia

	Leaves	Flowers	Fruit	Other
	<p>Alternate, Simple ~ narrow, leathery, evergreen Usually not more than 1" long ~ aromatic</p>	<p>Clustered on stem beneath current year's growth, in a "bottlebrush" around the stem Red (~ white, pink, green, yellow) Stamens have the color Sepals 5 – bell or cup-shaped base, Petals – 5, small Stamens – numerous, longer than petals, Style - 1</p>	<p>Triple-celled seed capsules Remain closed on plants for years Opens after fires or when plant dies</p>	<p>Trees to 20 ft. or shrubs ~ papery bark Hummingbird pollinated Like full sun and are drought tolerant Many species are not frost tolerant Callistemon means beautiful stamen</p>

*Cotoneaster dammeri* (ROSACEAE)

bearberry cotoneaster

China

	Leaves	Flowers	Fruit	Other
	<p>Alternate, simple, entire Elliptic to elliptic-oblong Base cuneate Upper – dark green Under - whitish Glabrous Mucronulate tips 4-6 vein pairs Short petioles</p>	<p>Solitary or corymb or 3 flws 5 sepals 5 petals rounded, white Stamens purple, ~ 20</p>	<p>Fleshy red pome w/persistent calyx</p>	<p>Trailing evergreen Branchlets pubescent when young Lvs purplish in late fall &amp; winter Roots where branches contact the ground</p>


**Landscape Plant Recognition**

**Plant Descriptions – Field Day #14**

*Oxydendrum arboreum* (ERICACEAE)

sour-wood or sorrel tree


E. North America

	Leaves	Flowers	Fruit	Other
	<p>Alternate, Simple 3-8" long, 1 1/2-3 1/2" wide Serrulate Smooth &amp; flat Acuminate tip</p>	<p>Infl – <b>terminal drooping panicles</b> (branching spikes), 4-10" long <b>Urn-shaped</b> 5 lobed calyx</p>	<p><b>Woody Capsule</b> <b>5-valved</b> <b>Often persists on tree</b></p>	<p>Deciduous tree to 75 ft <b>Often narrow growth form</b> <b>Lvs taste sour, but don't swallow</b> <b>Bark grayish brown &amp; finely grooved</b> Largest tree in Ericaceae Good fall color Flowers in late summer</p>

*Holodiscus discolor* (ROSACEAE)

oceanspray/ iron wood


Western North America

	Leaves	Flowers	Fruit	Other
	<p>Alternate, simple <b>Broadly ovate to triangular</b> <b>Coarsely toothed or lobed</b> 1-2 1/2" long, but lots of variability in size</p>	<p><b>Infl - pyramidal cluster 4-8 in long</b> <b>Small white/creamy flowers</b> <b>Dead flower clusters remain on plants over winter (brown)</b> 5-merous</p>	<p>Achenes Small, hairy</p>	<p>Deciduous shrub to 10 ft tall <b>Multi-stemmed</b> <b>Arching form</b> Used as an anti-diarrheal and poultice</p>

*Ulmus* (ULMACEAE)

elm


N. temperate regions

	Leaves	Flowers	Fruit	Other
	<p>Alternate, Simple ~ <b>doubly serrate</b> <b>Oblique at base</b> ~ <b>rough surface</b> <b>Pinnate veins</b></p>	<p>Infl – Raceme Perfect, Small, inconspicuous Perianth campanulate 4-9 merous – sepals No petals Stamens 3-9 On bare twigs – before lvs</p>	<p><b>One seed surrounded by wing, usually notched at the base</b> Greenish, turning ran</p>	<p><b>Deciduous tree to 100 ft</b> ~ suckering and regenerating from roots Wind pollinated Leaves wider than Zelkova, base asymmetric, irregularly serrate Ulmus is the Latin name for them - they used them as stakes to train grapes over</p>

*Ulmus americana* (ULMACEAE)

American elm


E. North America

	Leaves	Flowers	Fruit	Other
	Alternate, Simple Lvs nearly hairless under <b>Elliptic, Doubly serrate</b> Much smaller than <i>U. glabra</i> <b>Slightly oblique at base</b> <b>3-6" long, 1-3" wide</b> <b>Rough above</b> 13-18 vein pairs	Infl – Raceme or 3-4 flws Perfect, Small Perianth campanulate 4-9 merous Fls on slender, pendulous pedicels	<b>Winged fruit, deeply notched</b> ½" long Greenish <b>Fringed with hair</b>	Deciduous tree <b>60-80 ft. tall, spread 2/3 to ¾ of height</b> <b>Bark dark gray with deep intersecting ridges</b> Fls before leaves Very susceptible to Dutch elm disease (elm bark beetle is the vector)


*Ulmus glabra* 'Camperdownii' (ULMACEAE)

Scotch elm


Europe to W.Asia

	Leaves	Flowers	Fruit	Other
	Alternate, Simple <b>Secondary veins bifid at edges</b> <b>Very oblique at base</b> <b>Acuminate tip</b> <b>Doubly Serrate</b> ~ obovate 3-7" long, 1 ½-4" wide ~ 3 lobed at apex 14-20 vein pairs	Infl – Raceme Perfect, Small Perianth campanulate 4-9 merous Flws not pendulous	<b>Winged fruit, seed in center of samara</b> <b>Cannot reproduce from seed</b>	Deciduous tree, 15-25' high & wide Fls before leaves 'Camperdownii' is the top graft, a natural mutation found at Camperdown House in Scotland (1830's)- all are from this mutation, it must be grafted onto <i>U. glabra</i> for rootstock Glabra means without hairs, although it does have some

*Hydrangea quercifolia* (HYDRANGEACEAE) oak-leaf hydrangea S.E. U.S.A.

	Leaves	Flowers	Fruit	Other
	<p>Opposite, simple, coarsely serrate  <b>Nearly orbicular or elliptic, lobed (like oak leaf) (3-7)</b>                      About 8" long                      Pubescent under                      Long petioles (1-2 1/2")                      Truncate or subcordate base</p>	<p>Infl – <b>upright panicles, 1 ft. long</b>                      Pinkish-white                      Sterile margin flws white turning purplish                      Unlike <i>H. macrophylla</i>, do not change color in soils of differing pH</p>	<p>Capsule</p>	<p>Shrubs to 6 ft  <b>Upright w/ many wide spreading branches</b>  <b>Prefers shade, perfect for woodland gardens</b>                      Suckers from roots, grows in colonies                      Fall color orange, brown, red or purple                      Hydrangea means water jar because the fruits are cup-shaped, quercifolia because the leaves look like oak leaves                      'Little Honey' is a new dwarf cultivar</p>


*Syringa* sp. (OLEACEAE) common lilac E. Europe

	Leaves	Flowers	Fruit	Other
	<p><b>Opposite, Decussate</b>  <b>Simple, Entire margin</b>                      Ovate                      2-5" long, almost as wide                      Base truncate or cordate                      Glabrous</p>	<p>Infl – <b>dense panicles 4-8" long</b>, usually paired  <b>Lilac or white</b>  <b>Corolla tube longer than calyx</b>                      Stamens – 2                      White flowers are assoc. with youthful innocence                      Purple symbolizes first love</p>	<p><b>Beaked capsule</b></p>	<p>Shrubs 8-15 ft                      Wide spreading  <b>Fragrant</b>                      There are several species and enormous numbers of cultivars available.                      "syringe" refers to the hollow tube or pipe of stem  <i>Syringa vulgaris</i> is the most common species                      State Flower of NH</p>

*Corylus cornuta* (BETULACEAE)

beaked hazelnut


Saskatchewan to Quebec, south to Missouri and Georgia

	Leaves	Flowers	Fruit	Other
	<p><b>Alternate, simple</b>  <b>Oblique base</b>  <b>Upper margin coarsely serrate</b>  <b>1 ½-4 ½” long, 1-3” wide</b>  <b>Very soft densely pubescent leaves</b></p>	<p>Monoecious                      Catkins -Males 1” long                      Female flws hidden in winter buds with just crimson stigmas emerging after males done with pollen</p>	<p>Hazelnut or filbert  <b>Beaked nut formed by involucre extends 1-1 ½” beyond fruit</b></p>	<p><b>Deciduous</b>  <b>Many stemmed</b>  <b>4-8’ high &amp; wide</b>                      “Bristly-hairy twigs”                      Corylus is what the Greeks called hazelnuts, cornuta means beaked and refers to the inflorescence and fruit</p>

*Philadelphus lewisii*(HYDRANGEACEAE)

mock-orange


Western North America

	Leaves	Flowers	Fruit	Other
	<p><b>Opposite, simple</b>  <b>Entire, serrulate or dentate</b>  <b>3-5 veined from base</b>  <b>Pubescent</b></p>	<p>Infl – <b>terminal racemes or solitary</b>  <b>4-merous</b>, Many stamens  <b>White or creamy</b> w/pink spot at base of petal                      Inferior ovary</p>	<p>4-valved woody capsule</p>	<p>Deciduous or evergreen shrub or tree to 15 ft                      Drought tolerant  <b>Curving and drooping branches</b>                      ~ flaky bark                      ~ climbing  <b>Fragrant, with a hint of pineapple</b>                      State flower of Idaho                      Philadelphus means to love one's brother or sister                      Discovered by Meriwether Lewis in 1804</p>

*Sorbus sp.* (ROSACEAE)


mountain ash

Europe, Asia

	Leaves	Flowers	Fruit	Other
	Alternate <b>Pinnately compound or simple</b> ¾-2 ½” long <b>9-15 pairs lflts</b> <b>Dull green above</b> Oblong lanceolate <b>Serrate (entire on lower part of leaf)</b>	Infl – <b>compound terminal corymbs, 3-5” flat topped</b> <b>White</b> <b>5 merous</b> <b>Stamens 15-20</b> <b>Bad smelling</b>	<b>Red, fleshy pome</b> <b>Sometime will have lenticels</b> Shiny	Deciduous, 20-40 ft Spread is 2/3 height Light grayish brown bark Some are invasive ( <i>S. aucuparia</i> = Bird-dispersed fruits - aucuparia means bird-catching!)

*Deutzia* (HYDRANGEACEAE)


Himalayas to E. Asia

	Leaves	Flowers	Fruit	Other
	<b>Opposite</b> <b>Serrate</b> ~ <b>rough surface</b> ~ strong hairs	Infl loose, flat pyramidal heads or elongated spikes 5-merous <b>Stamens =10 in 2 rows of 5</b> <b>Stamen filaments winged or lobed</b> <b>White or pink petals</b>	Hard capsules	Shrubs to 9 ft ~ <b>peeling bark</b> Deciduous (~ evergreen) <b>Not scented</b>

*Quercus suber* (FAGACEAE)

cork oak


W. Mediterranean, N. Africa

	Leaves	Flowers	Fruit	Other
	Alternate, simple <b>Ovate to ovate-oblong</b> <b>Undulating margin</b> <b>1-2½” long</b> Rounded or subcordate at base <b>4-5 pairs short teeth</b> Dark green above, Grayish under Petioles ½-¾ in long	Catkins	Acorn, ovoid-oblong Involucre w/elongated scales Short stalked	Evergreen tree to 60 ft, 250 yrs <b>Bark thick &amp; corky, can be harvested every 10-12 years and up to 10 times during its lifetime, new layers will regenerate</b> <b>Deeply furrowed</b> Brlts yellow-tomentose

*Cistus* (CISTACEAE)

rock rose


Canary Islands, N. Africa, Turkey, Europe

	Leaves	Flowers	Fruit	Other
	<p><b>Opposite</b>  <b>Simple</b>  <b>Entire</b>                      ~ bluish-green                      ~ hairy                      Leaf axils often contain short shoots w/ small leaves</p>	<p>Infl- Racemes  <b>Thin fragile petals (flws open singly in am and ~ fall by afternoon)</b>  <b>Looks like crinkled tissue paper</b>                      Sepals 3-5, petals 5                      Stamens many, Styles 1  <b>Pink, purple, white</b>                      ~ purple spot at base of petal</p>	<p><b>5-10 valved capsule</b></p>	<p>Evergreen shrub to 10 ft but usually much lower (3-4 ft)                      Stems often sticky with aromatic resin                      Likes sunny, very well-drained locations, once established requires very little water</p>

*Sassafras albidum* (LAURACEAE)

common sassafras


eastern N. America

	Leaves	Flowers	Fruit	Other
	<p>Alternate, simple  <b>Shape varies from ovate-elliptic to 2-lobed “mitten shaped” to 3-lobed</b>  <b>3-7” long</b></p>	<p>Dioecious                      Terminal racemes  <b>Appears before leaves</b>  <b>Small, yellow</b>  <b>6 petals</b>                      Male fls 9 stamens                      Female fls styles w/6 staminoids</p>	<p>Drupe, dark blue                      ½” long                      Scarlet pedicel</p>	<p><b>Shrub to tree (30-60 ft)</b>  <b>Red-brown bark w/ ridges</b>                      Twigs green  <b>Leaves aromatic</b>  <b>Suckers and forms thickets</b>  <b>Roots used to make root beer</b>                      (no longer – carcinogen), so roots smell like root-beer                      Good fall color (yellow, red, purple)                      Oil extract (safrole) is considered a carcinogen, commonly used in synthetic drugs like LSD and ecstasy, also commonly used as a moonshine ingredient</p>

*Acer davidii* (ACERACEAE)

David's maple


China

	Leaves	Flowers	Fruit	Other
	<p>6-18 cm long and 4-9 cm broad                      3-6 cm petiole                      Dark green above and paler below                      Ovate                      Unlobed or weakly tri-lobed                      Serrated margin</p>	<p>Small                      Yellow                      5 sepals and petals 4 mm                      Infl – arching or pendulous raceme 7-12 cm</p>	<p><b>Samaras</b>                      7-10 mm long and 2-6 mm broad</p>	<p>Deciduous tree up to 45 ft                      Spreading crown and arching branches, can have multiple trunks                      Smooth olive-green bark with pale vertical stripes                      Turn orange, red, and yellow in fall                      Included in the group of snake-bark maples</p>

*Paeonia* (PAEONIACEAE)

peony


Europe to E. Asia and in W. North America

	Leaves	Flowers	Fruit	Other
	<p>Alternate, may be basal in herbaceous species                      Usually at tops of shoots                      Pinnately compound or simple and dissected to lanceolate lobes                      ~ Ternate                      Large</p>	<p>~ solitary, terminal                      Sepals- 5, Petals – 5-9                      ~ red, white, pink                      1-12 leafy bracts                      Stamens – many                      Carpels 1-8, each w/ 1 style, often short &amp; broad &amp; often hairy                      Large, showy, short lived</p>	<p><b>Fruit a cluster of follicles</b>                      Seeds have blue/black fleshy aril                      Contains many infertile seeds.</p>	<p>Herbs or shrubs                      Thick soft twigs                      Pollinated by pollen eating beetles                      Need fertile soil                      Paeon was the physician to the Greek gods and the discoverer of its medicinal properties.                      State flower of IN</p>

*Gleditsia triacanthos* (FABACEAE)

common honeylocust


C. and E. North America

	Leaves	Flowers	Fruit	Other
	<p>Alternate, bi-pinnately compound 6-8" long 10-20 pairs leaflets (8-14) Pubescent, grooved rachis ~ crenate-serrate margin Glossy bright green, yellow when they emerge Base of petiole swollen &amp; enclosing bud</p>	<p>Perfect &amp; imperfect on same tree Greenish-yellow Male clusters, 2" racemes Females, few flowered clusters</p>	<p>Legume Reddish brown to black 7-8" long (18") 1" wide</p>	<p>Deciduous tree 30-70' and open spreading crown Thick spines on branches (some cultivars w/no spines) Stems zig-zag w/enlarged nodes</p>

*Robinia pseudoacacia* (FABACEAE)

black locust

E. U.S.A.

	Leaves	Flowers	Fruit	Other
	<p>Alternate, pinnately compound 6-14" long 5-7 pair leaflets (1-2" long) Elliptic or ovate Entire Mucronate apex Dark bluish green</p>	<p>Infl – dense racemes 4-8" long Perfect, pea flower 1" across White flowers with yellow dots at base Very fragrant</p>	<p>Legume Brown-black 2-4" long</p>	<p>Tree 30-50 ft. Trunk deeply furrowed vertical grooves and dark brown Stem has paired spines, esp. on fast growing shoots Branchlets ~ zig-zag, slender, brittle Freely seeds to develops thickets Invasive in Europe and western US Every part of the tree is considered toxic</p>