

CUPRESSACEAE

cypress family

Cosmopolitan

Leaves

Evergreen

Scale like foliage or whorled in 3's

Resinous

Cones

Cones, male & female

Cone scales in pairs, peltate or basally attached

Cones generally smaller than Pinaceae cones

Axillary or terminal on branchlets

“Berry-like” in junipers

Other

Trees and shrubs

Aromatic

Thuja (CUPRESSACEAE)

cedar or arborvitae

Leaves

Scale-like

(larger than *Chamaecyparis*)

Opposite & decussate

Laterals almost covering facials

Cones

Very small cone, “wooden rose “

Ovoid or oblong

Monoecious

Other

Thuja is a Greek name for a kind of juniper, which is in this family, but a different genus

Thuja plicata (CUPRESSACEAE)

western redcedar

Western N. America



Leaves

Scale-like

“Butterfly” pattern of stomata on back, but no "x"

No obvious gland on underside

Laterals almost covering facials

Yellowish-green color, usually shining on the upper surface

Cones

“wooden rose “

10-12 cone scales

Cones turned up and bent backward on branch

Other

Huge, fast growing tree - to 60 m in PNW

Bark thin reddish brown and stringy

Branches drooping, then curve upward

plicata= “folded into plaits” or pleated

Used by Native Am.

“sweet” citrus scent

Landscape Plant Recognition

Plant Descriptions – Field Day #1

Chamaecyparis (CUPRESSACEAE)

cypress

Leaves

Scale-like
(smaller than *Thuja*)
Branchlets usually flattened

Cones

Cones roundish
"soccer ball"
Scales opposite
Shield shaped
Monoecious

Other

Trees with nodding leader
Leaves sometimes unpleasant smelling
"Chamae" means dwarf, but many *Chamaecyparis* are very large

Chamaecyparis lawsoniana (CUPRESSACEAE)

Lawson cypress or Port Orford cedar

Western N. America



Leaves

Scale-like
Closely appressed
White "Y or X" mark
Laterals much larger than facials

Cones

"soccer ball"
Small cone – 8mm across, mature in a single season
Scales decussate
Male cones red, ~ 0.5 cm, in spring

Other

Pyramidal growth form to 60 m
Bark grayish
Susceptible to root rots in some areas

Ilex (AQUIFOLIACEAE)

holly



Leaves

Alternate
Simple
Entire to serrate
~ **spiny**
Mostly evergreen and leathery
Short petiole
Stipules minute

Flowers

Infl –clustered cyme or axillary & solitary
Radial (symmetric flower)
Mostly dioecious
Flowers 4 - 5 parted, small
Ovary superior

Fruit

Drupe
Brightly colored
Persistent sepals

Other

Trees & shrubs
Acidic soil

Ilex crenata (AQUIFOLIACEAE)

convex-leaved holly

Russia, Japan, Korea



Leaves

Alternate
Simple
Small leaf
Margin serrulate (crenate) on upper blade
Elliptic or obovate to oblong-lanceolate
Small – 1.5 to 3 cm long
Upper – dark green
Lower – dotted with glands, glabrous
Petiole short

Flowers

Fls – 4 parted
Female fls solitary
Male fls in 3-7 fld cyme

Fruit

Globose (round) drupe
- dark colored

Other

Shrub
Many branches
"Crenata" means rounded scallops on leaf margin
Several cultivars
Good hedge plant

OLEACEAE

olive family

cosmopolitan

Leaves

Deciduous or evergreen
Opposite
Simple or pinnately compound
Entire
~ no stipules

Flowers

Infl –Cyme
Fls- axillary or terminal
Radial
Perfect or imperfect
4 parted
Sepals ~ united
Petals ~ united
Stamens 2, Pistils 2 fused
Ovary superior

Fruit

Samara, berry, drupe or capsule
(olive-like fruit)

Other

Trees or shrubs
Fragrant flowers

Landscape Plant Recognition

Plant Descriptions – Field Day #1

Forsythia (OLEACEAE)

forsythia

Asia & southern Europe



Leaves

Deciduous
Opposite
Simple (~3 leaflets)
~ toothed

Flowers

Clusters of 1-6 fls in leaf axils
Golden yellow
Appear before leaves
Perfect

Fruit

Capsule w/many winged seeds

Other

Shrub to 3 m
Branchlets hollow or layered

ROSACEAE

rose family

Leaves

Mostly alternate
Simple or palmately or
pinnately compound
Stipules (except Spiraea)
Leaves or leaflets
~ w/serrate margins
~ oval

Flowers

Infl – usually indeterminate
raceme, cyme or solitary,
axillary or terminal
Radial
Perfect
5-parted
Petals distinct, short clawed
many stamens
Pistils - numerous to 1
Enlarged receptacle (~
hypanthium) bearing sepals
and stamens on its margin
ovary various

Fruit

Varied (follicle, capsule,
achene, drupelet, drupe, pome)

Other

Trees, shrubs, herbs
Aromatic
~ thorny

Prunus (ROSACEAE)

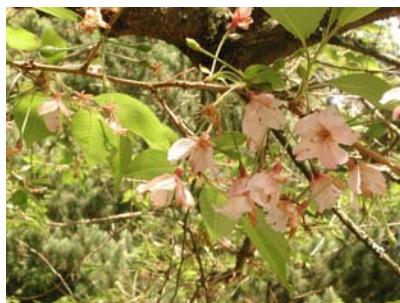
cherries, apricots, plums, nectarines, almonds

Cosmopolitan

Leaves	Flowers	Fruit	Other
Mostly deciduous, some evergreen	Perfect	Drupe – single seeded	Shrubs or trees “almond-like” pits
Alternate	Ovary superior		Flowers are often very showy
Simple	5-parted		Trunks may have lenticels
Stipulate	Stamens – many		Many deciduous species have some nectaries (look like small bumps) near the leaf base or on the petiole
Broadly ovate to lanceolate	Pistil - 1		
Dentate to serrate margins			

Prunus subhirtella (*Prunus Xsubhirtella*) (ROSACEAE) flowering cherry

Japan



Leaves	Flowers	Fruit	Other
Alternate	Single or semi-double	Drupe – single seeded	Small tree to 5 m
Simple	Pink		Many branches
Ovate to oblong-ovate	½” diameter		Most delicate of the cherries – smaller, thinner branches, smaller flowers
1-2 in. long			Young branches pubescent
Sharply, ~ doubly serrate			Cherries don’t do well in NW and early bloomers like this often are the worst
Tip acuminate			Blooms from late fall to late spring
Lower – pubescent on veins			'Autumnalis' is the most common cv
			"Subhirtella" means somewhat hairy

Viburnum (ADOXACEAE, formerly in CAPRIFOLIACEAE) viburnum

	Leaves	Flowers	Fruit	Other
	Opposite Simple (rarely palmately lobed) Variable shapes - Lanceolate to rounded - Entire to serrated Often rough & thick	Infl. – Axillary or terminal Compound umbel (flat-topped or convex clusters) Radial Corolla (petals) - 5 lobed - rotate (disc-shaped) to campanulate (tubular) Stamens 5 White to pinkish	Drupe w/1 compressed stone	Shrubs or small trees Deciduous or evergreen ~ Scented flws
<i>Viburnum tinus</i> (ADOXACEAE)		laurustinus	Mediterranean	



	Leaves	Flowers	Fruit	Other
	Opposite Simple, Entire Leathery (slightly wrinkled) Narrowly ovate or lanceolate 4”long ; 1 ½ “ wide Lustrous dark green on top Pale underneath & pubescent on veins Veins connect before reaching leaf margin.	Infl – Compound umbel Umbel is convex White or pinkish fls w/ wine-red calyx Corolla tube much shorter than lobes	Fruits ovoid, “metallic-blue balls”	Bushy shrub with wine-red branchlets Evergreen

BUXACEAE

box family

Leaves	Flowers	Fruit	Other
Evergreen	Unisexual	Capsule	Shrub or small tree
Opposite or Alternate	Monoecious		
Simple	Small		
Entire	Apetalous (no petals)		
No stipules	Star-shaped		
	Calyx 4-parted		
	Female fls 4-12 parted (or none)		
	Styles 2-3		
	Stamens 4 (opposite)		

Buxus (BUXACEAE)

box

Leaves	Flowers	Fruit	Other
Evergreen	Unisexual	3-horned capsule	Shrub or small tree
Opposite	Monoecious		"Sempervirens" means always green
Entire	Small		
Short petioled	Apetalous		
Leathery	Small female fl in center		
slender penni-nerved (parts parallel – think feather)	surrounded by several staminate fls.		

Buxus sempervirens (BUXACEAE)

box

Europe, N. Africa, Turkey



Leaves

Opposite
Entire
 Small leaf
Short petioled
leathery
 Slender penninerved
 Elliptic, obtuse or emarginate at apex
 Yellowish-green and lustrous on both upper and lower surfaces

Flowers

Infl – axillary or terminal clusters
Small female fl in center surrounded by several male fls.
 Female fls
 - Apetalous
 - Sepals 6
 - Styles-3
 Male fls - - Sepals 4
 - Stamens 4 (longer than sepals)
 Yellow-green

Fruit

3 horned capsule

Other

Shrub
 Evergreen
 Many branched
 Heavily used in hedges & topiaries
Leaves have a distinctive smell likened to cat urine
 New leaves in “cabbage head” may indicate insect or disease problem

Cornus (CORNACEAE)

dogwood

Leaves

Opposite (alternate in one species)
 Simple
Arcuate venation (veins arching from base to tip)

Flowers

Infl – Cymes, terminal
Tight & compact
 Perfect
4-parted
 White petal-like structures are bracts (often showy)
 Petals small, white, calyx tube
 - 4 parted
 Ovary inferior

Fruit

Drupe or berry

Other

Trees, shrubs, herbs
If you tear a leaf, will see strings inside veins
 Bracts can change color with age

Cornus mas (CORNACEAE)

Cornelian cherry

Europe, W. Asia



Leaves

Opposite
Simple
Ovate
4 in. long
3-5 pairs of veins
Pilose (long hairs) on underside of leaves in vein axils

Flowers

Infl – Short stalked umbels
Fls apetalous
Bracts yellow, not showy

Fruit

Drupe
Ellipsoid
Dark reddish black

Other

Small tree to 20 ft.
If you tear a leaf, will see strings inside veins
Bracts can change color with age
Early flowering before leaves
Fruits edible
"mas" means masculine

RUTACEAE

citrus family

Leaves

Alternate (~ opposite)
Mostly simple to palmately or pinnately compound
Entire
Leathery
No stipules
Mostly with a citrus scent
Pellucid glands (transparent)

Flowers

Infl – cyme
Axillary or terminal
~ solitary & axillary
Imperfect or perfect
Radial
4-5 parted
Sepals, petals overlapping
Stamens 4 to numerous
Ovary superior
White/greenish/yellow
Showy and fragrant

Fruit

Berry, drupe or capsule

Other

Tree or shrub, ~ herbs
Aromatic parts

Skimmia japonica (RUTACEAE)

China, Japan, S.E. Asia



Leaves	Flowers	Fruit	Other
Alternate Simple Entire Crowded at ends of branchlets (looks whorled) Elliptic-oblong to oblong-ovobate Bright yellowish-green	Dioecious Infl –cyme Radial 4 parted Female fls with 4-5 staminoids (sterile) White and fragrant	Red fruit on female plant Berry	Small shrub 3-4 ft. Evergreen Very susceptible to mites, esp. in hot locations "Skimmia" is from the Japanese name

Thuja occidentalis (CUPRESSACEAE)

American arborvitae

E. North America



Leaves	Cones	Other
No markings on underside of leaves. Lvs on main axis conspicuously glandular Usually dull green above	Very small cone, "wooden rose" Ovoid or oblong Monoecious 5-7 (9) cone scales	Trees w/stout buttressed trunk Very slow growing, short growth node (few inches) Cultivar 'Pyramidalis' is a very common hedge plant "Occidentalis" means western, even though it is native to east NA

ARALIACEAE

ginseng family

Leaves	Flowers	Fruit	Other
Alternate Simple or pinnately or palmately compound	Infl – Simple umbel Radial Perfect & Imperfect Pistils 2-5 (fused) 4- 5 parted ~greenish-white fls ovary inferior	Drupe, berry ~ red or purple	Trees, shrubs, woody vines, ~ herbs Evergreen

Fatsia japonica (ARALIACEAE)

South Korea, Japan



Leaves

Alternate
 7-9 lobed
 (rounded sinuses)
 Cordate base
 Serrate margin
 Shiny dark green
 15-35 cm wide
 ~ wider than long
 Distinct leaf scar on branch
 Very long petioles (10-30 cm)

Flowers

Infl – Umbels
 3-4 cm across
 5 parted
 white

Fruit

Berries. Fleshy, black & round

Other

Evergreen shrub to 5 m
 Many stemmed
 “eight-fingered”
 Chases the sun –petioles longer on lower leaves

PINACEAE

pine family

northern hemisphere

Leaves

Evergreen
Needles (linear leaves)
Spirally arranged

Cones

Monoecious (rarely di)
Male cones small, consisting of many small scales
Female cones woody, consisting of many small overlapping scales

Other

Trees or shrubs

Pinus (PINACEAE)

pine

Leaves

Evergreen
Needles, Spirally arranged
Fascicles (bundled at base) ~ clustered on short spurs
2, 3, or 5 per fascicle, depending on species

Cones

Monoecious
Woody scales spirally arranged,
 Scales w/keel (blunt or rounded protuberance)
 ~ terminated by a spine

Other

Trees
 Whorled, spreading branches
 Bark furrowed or scaly
 2 subgenera: soft pines (white)
 - needles in 5, cones unarmed
 Hard pines (black or red) -
 needles in 2 or 3, cones armed

Landscape Plant Recognition

Plant Descriptions – Field Day #1

Pinus nigra (PINACEAE)

Austrian black pine

Austria, N. Italy to the Balkans



Leaves

2 per fascicle
4-6 in long
Stiff
Dark green

Cones

Female cones yellowish brown
Ovoid
2-3" long, 1 ¼" wide
keel differing in color

Other

Tree to 150 ft.
Pollution tolerant

Pittosporum tobira (PITTOSPORACEAE)

China, Korea, Japan



Leaves

Evergreen
Alternate
Simple
Entire
Recurved on margin
Narrowly obovate (spatulate)
4" long, 1 ½ " wide
blunt or rounded apex
short petiole
Upper- glossy bright green
Leathery

Flowers

Infl – corymb, terminal
Radial
Perfect
White, changing to yellow
5 parted
Fragrant

Fruit

Capsule with red seeds

Other

Shrub to about 15 ft.
Many branches
"Pittosporum" means pitch seed – may refer to stickiness
May resemble rhododendron when not in flower

Prunus laurocerasus (ROSACEAE)

cherry laurel

S.W. Europe



Leaves

Evergreen
 Alternate
 Simple
 slightly serrate on margin
 Glossy dark green
 Oblong or obovate-oblong
 12-33 in. long
 Tip acuminate
 Base cuneate

Flowers

Infl –
 Elongate racemes
 5-merous
 White
 ¼ in wide
 Perfect
 Ovary superior

Fruit

Drupe

Other

Shrub or small tree
 to 6 m
 Used for hedges
 Very hardy
 "lauro" means laurel, "cerasus"
 means cherry

Spiraea (ROSACEAE)

Northern hemisphere



Leaves

Deciduous
 Alternate
 Serrate or lobed
 No stipules

Flowers

Infl ~ Umbel or spike-like
 Small fls - <2 cm across
 Carpels – simple, ~ 5

Fruit

Capsules, follicles, achenes)

Other

Shrubs with many thin
 branches
 Dense “foamy” clusters of
 small white flowers
 "Spiraea" means twisted or
 spiral