


Picea pungens (PINACEAE)

Colorado Blue Spruce


Rocky Mountains

	Leaves		Cones	Other
	Needles (linear leaves) Spirally arranged ~1" long Sharply pointed Square in cross section Bluish green Peg-like stalks on branchlets		Female woody cones w/persistent scales (will mature in 5-7 months) Pendulous (hang down) Male catkin-like Scales paper thin Scales notched 2-4" long	Tree to 90 ft. Horizontal branches in whorls Scaly bark Stout shoots Subject to insect infestations here, better in colder climates State Tree of Colorado


Abies concolor (PINACEAE)

White Fir


Oregon to N. Mexico

	Leaves		Cones	Other
	Needles , Lvs flat Radially spreading, turn up on twig – u-shaped Most needles over 1½" (usually 2-3") and loosely spaced on twig Lvs grayish or bluish green Lvs mostly straight Stomatal bands on both sides of lvs Circular scar when lvs fall		Woody cones Upright Deciduous Greenish purple 3-5" long	Tree 100 feet, Evergreen Buds very resinous Bark grayish, thick, furrowed Young twigs greenish Can be a nuisance in the absence of fire

Sciadopitys verticillata (SCIADOPITYACEAE) Koyamaki or Umbrella Pine Japan

	Leaves		Cones	Other
	<p>Linear, 3-5" long "Needles" are actually called cladodes-they are photosynthetic branches or portion of stems that function as a leaf (think asparagus or a cactus), entirely composed of stem tissue Whorled (verticillate) in bundles of 10+ Lvs thick and grooved (looks like two fused "needles", this will open up and a bud will form in the V) Upper – yellowish-green & glossy Lower - 2 stomatal bands</p>		<p>Woody cones ~ 3" long</p>	<p>Evergreen tree to 130 ft. Slow growth Fossils date back over 230 million years</p>


Abies firma (PINACEAE) Momi fir Japan

	Leaves		Cones	Other
	<p>Needles (linear leaves) Lvs flat, 1½" long Stomatal bands on back, upper glossy dark green Circular scar when lvs fall Apex of leaf divided into two (bifid)</p>		<p>Woody cones Upright, Deciduous 4-5" long Scale bracts are exerted out (like a tail)</p>	<p>Tree, Evergreen, to 160 ft.</p>

Hedera helix (ARALIACEAE)

English Ivy


Europe

	Leaves	Flowers	Fruit	Other
	<p>Alternate Young lvs 3-5 lobed Adult lvs ovate, entire Long petioles</p>	<p>Infl – umbellate raceme Only adult plant flowers (when upright) Flowers in the fall</p>	<p>Berry, blackish, round Fruits in the spring Poisonous</p>	<p>Low shrub or vine Creeps on ground or climbs trees, holds on by short adhesive rootlets Highly invasive, seeds spread by birds, then plant spreads vegetatively NOTE: The taxonomy is confused and much of what is invading is actually <i>Hedera hibernica</i></p>

Cornus nuttallii (CORNACEAE)

Pacific Dogwood


West Coast of US & Idaho

	Leaves	Flowers	Fruit	Other
	<p>Opposite, simple Elliptic to obovate 3-5" long, 1½-3" wide Short acuminate apex 5-6 vein pairs (arcuate) Petiole ¼- ½" long Lvs dark green above</p>	<p>Dense head of purple-green flowers ¾" across Bracts 4-8 (~ 6), not petals Oval to obovate, pointed 1½-3" long, 1-3" wide White</p>	<p>Drupe Orange to red 1/3" long Clusters Will contain 50-100 small seeds</p>	<p>Deciduous tree to 60 ft. w/many branches Fall color red-pink May have a second flush of flowers in late summer Bark is gray and smooth</p>

Magnolia grandiflora (MAGNOLIACEAE)

Evergreen or Southern Magnolia


S.E. United States

	Leaves	Flowers	Fruit	Other
	<p>Alternate Simple Entire Evergreen Large stipules Obovate-oblong or elliptic Large (5-8" long) Upper – glossy Lower – rust-colored, downy Leathery</p>	<p>Solitary & terminal Radial (actinomorphic) Perfect Tepals (3 sepals, 6 petals) Many stamens & carpels, spirally arranged Flowers cup-shaped 6-8" across White, fragrant</p>	<p>Aggregate of follicles</p>	<p>Tree to 90 ft. Evergreen Blooms late June, July New popular cultivar, 'Little Gem' with smaller leaves and smaller tree, often with a distinct canopy State Tree of Mississippi Some cv are ideal for large containers</p>

Pinus sylvestris (PINACEAE)

Scot's pine


Europe, temperate Asia

	Leaves		Cones	Other
	<p>Needles in fascicles 2 per fascicle Short (1-2" long) Blue-green or grayish green ~ twisted</p>		<p>Monoecious Woody scales spirally arranged Scales w/keel (umbonate) (blunt or rounded protuberance) Keel has small prickle Red at pollination, turns to pale brown Can hold onto cone for 2 years after pollination</p>	<p>Evergreen tree from 60-130 ft Can live 200-300 years, one in Sweden is 700 years old Bark orange-red Irregular peeling Lower branches die early National Tree of Scotland – only 1% remain, most cut for timber, grazing, fire, or to see wolves Was used for pulp, tar, and construction purposes Listed as an invasive specie in Wisconsin</p>

Pinus strobus (PINACEAE)

eastern white pine


Newfoundland to Georgia

	Leaves		Cones	Other
	<p>Needles in fascicles 5 per fascicle 2-5 1/2" long Lvs very soft, slender Serrulate Bluish-green</p>	<p>Used as masts for sailboats, resin to waterproof baskets and boats. Turned into turpentine. When added to beer – treat tapeworm When added to sulphur – treat dandruff Contains 5 times the amount of Vitamin C than a lemon Cambium is edible and can be dried and pounded into a flour ('Adirondak' is Iroquois for tree eater)</p>	<p>Female cones narrow cylindrical ~ Curved Long (4-8 inches) Scales thin, rounded and flat yellow-brown, no prickle</p>	<p>Evergreen tree to 90 ft (tallest tree in Eastern US) Can live 250-500 years Bark gray, smooth when young, furrowed when older, Very similar to <i>P. monticola</i> (western white pine) State Tree of Maine and Michigan 50-80% died in early 1900's due to White Pine Blister Rust</p>

Vaccinium ovatum (ERICACEAE)

evergreen huckleberry

British Columbia to California


	Leaves	Flowers	Fruit	Other
	Alternate, Simple Ovate (0.5-1 in. long) ~ 2-ranked on horizontal branchlets Serrulate Upper-glossy green Under – paler green	Infl – short racemes Urn-shaped flws. w/ 5-lobes White or pink	Berry, round, black Edible, still collected by Native Americans	Evergreen shrub to 10 ft. Branchlets reddish, pubescent Can be grown in the sun or shade

Acer (ACERACEAE)


maple

	Leaves	Flowers	Fruit	Other
	Opposite. Simple, often lobed (3-9 lobes) or compound (both palmately and pinnately) with 3 – 5, but rarely 9 leaflets.	Dioecious or andromonecious (male flowers and bisexual flowers on same plant). Short racemes, panicles or corymbs. Perfect or imperfect. Small. Sepals 5 (rarely 4), sometimes fused. Petals 5 (rarely 4, 6 or none). Stamens 8 (rarely 4, 5 or 10-12). 2 carpels and 2 styles, each carpel with 2 ovules.	Double samara (schizocarp).	Trees to 130 ft. or shrubs. Primarily deciduous, few evergreen.

Acer macrophyllum (ACERACEAE) big-leaf maple Western side of British Columbia through S. CA

	Leaves	Flowers	Fruit	Other
	<p>Opposite, paired Simple Very large (6-12") Deeply 3-5 lobed (middle lobe also 3 lobed) Toothed margin Long petioles (almost as long as leaf)</p>	<p>Infl – pendulous panicle 4-5" long Yellow, fragrant</p>	<p>Schizocarp Hanging in long clusters Spread at sharp angle (~90) Has stiff yellow hairs on it</p>	<p>Tree to 90 ft. Deciduous Flowers before leaves Petioles have milky sap if split Bark grayish/reddish brown, interlacing ridges & furrows Provide habitat for epiphytes Can get maple syrup but tastes somewhat different Wood for pianos, furniture, salad bowls, guitars</p>


Leucothoe fontanesiana (ERICACEAE) leucothoe Eastern North America

	Leaves	Flowers	Fruit	Other
	<p>Alternate, Simple Elliptic Serrate to dentate Stem has a "zig-zag" pattern – slightly changes direction at each node</p>	<p>Spikes in leaf axils Urn-shaped flower with toothed lobes 5 parted</p>	<p>Dry capsule</p>	<p>Shrubs to 6 ft. Evergreen Popularly used in pots cv. Rainbow is popular</p>

Ceanothus (RHAMNACEAE)

California lilac


western North America

	Leaves	Flowers	Fruit	Other
	<p>Alternate Shallowly toothed Pinnately veined or w/ 3 main veins from the base. Shiny upper surface that can feel gummy when pinched</p>	<p>Infl – spike or panicle in leaf axils Perfect Petals small, hooded and clawed Stamens 5 - opposite petals 3 carpels Blue (~ white) 5-merous Fragrant (like boiling honey)</p>	<p>Capsule Fruit separating at maturity into 3 dehiscent nutlets Seeds can lay dormant for hundreds of years and depend on fire for germination</p>	<p>Small shrub or tree to 20 ft ~ thorny Evergreen (mostly) or deciduous <i>C. thyrsifolius</i> and cv Puget Blue are common here. <i>C. gloriosus</i> (Point Reyes C.) low and prostrate, blue fls, dark green lvs, good in hot dry locations Ceanothus is the Greek name for a spiny plant, but not this genus Nitrogen fixer</p>

Malus (ROSACEAE)

apple

N. Hemisphere

	Leaves	Flowers	Fruit	Other
	<p>Alternate, Simple Serrate Leafs soft, often pubescent.</p>	<p>Umbel like Pink to red to white (if white, then some pink on bud) Sepals 5, fused at base Petals 5 Stamens 15-50 with yellow pollen Styles 5 Ovary inferior Require cross pollination by mason or honey bees</p>	<p>Pome (apple shaped), incurved at the base Sepals persistent Several soft seeds in each carpel. Edible – some are sour and hard High in pectin and can make a good cider</p>	<p>Trees to 45 ft or shrubs Deciduous Usually no spines Flowers generally appear before leaves Can provide a good rootstock, especially if you are look to have a tree be cold hardy</p>