

CLASS DICOTYLEDONAE – two cotyledons (seed leaves), net-like pattern of leaf venation, flower parts in multiples of 4 or 5, many woody representatives



Adoxaceae, Moschatel Family - fruit a drupe

*Sambucus nigra* subsp. *canadensis*, Elderberry – **opposite** leaf arrangement, **compound** leaves



*Viburnum obovatum*, Walter's Viburnum – simple, **opposite** leaf arrangement, serrate, obovate leaves, early nectar for pollinators, fruit for wildlife

Altingiaceae, Sweetgum Family – alternate leaf arrangement, simple, palmatifid, margins usually serrate, dispersal unit is globular, hard, dry, made of many capsules.

*Liquidambar styraciflua*, Sweetgum – leaf star-shaped, deciduous, seeds eaten by birds such as the American Goldfinch



Anacardiaceae, Cashew Family



*Rhus copallina*, Winged Sumac – leaves alternate leaf arrangement, **compound** leaves, margin entire, winged petiole

Aquifoliaceae, Holly Family – most dioecious



*Ilex cassine*, Dahooon Holly – evergreen, simple leaves, alternate, margins entire or serrated, red fruit for songbirds

Asteraceae, Aster Family - largest family of flowering plants, most are herbaceous

*Baccharis halimifolia*, Groundsel Tree – dioecious, leaves alternate, simple, dentate leaf margin, flowers in numerous small, compact heads with white female flowers resembling small paint brushes



Betulaceae, Birch Family

*Carpinus caroliniana*, American Hornbeam - muscle-like fluting on trunk suggest a common name "musclewood," leaves serrated, elliptic-oval, depressed veins on upper leaf surface, fruit in spike-like clusters found in moist forests,



Cannabaceae, Hemp Family

*Celtis laevigata*, Sugarberry or Southern Hackberry – simple, alternate, serrate or entire, asymmetric leaf base, warty bark, host for Hackberry Emperor and Tawny Emperor, fruit for birds



Cornaceae, Dogwood Family

*Cornus foemina*, Swamp Dogwood – **opposite**, simple, entire, inflorescence is a cluster of white flowers, fruit a drupe, curved venation



*Nyssa sylvatica* var. *biflora*, Swamp Tupelo – alternate, simple, entire, trunk with swollen base, tolerates long periods of flooding, develops looping roots that grow up out of water



Ebenaceae, Ebony Family

*Diospyros virginiana*, Common Persimmon – alternate, simple, entire, leaves develop spots with age, edible fruit



Ericaceae, Heath Family

*Lyonia ferruginea*, Rusty Staggerbush - leaves alternate, simple, entire, oblanceolate, rufous pubescence, flower small white bell-shaped, branches sometimes zigzag leading to the common name "crookedwood," habitat is scrub, scrubby flatwoods and, if fire is excluded, the hammocks that develop from scrubby habitats



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Fagaceae, Beech Family – simple, alternate, leaves important for caterpillars eaten by songbirds, acorn eaten by many wildlife species

*Quercus laurifolia*, Laurel Oak - tardily deciduous



*Quercus nigra*, Water Oak – leaf broadest near apex, deciduous, tolerates wet soil

*Quercus virginiana*, Live Oak – entire, dark rough bark, long-lived, evergreen, wind resistant

Juglandaceae, Walnut Family – most genera pinnately **compound**, alternate, fruit a nut



*Carya aquatica*, Water Hickory – 7 to 17 lance-shaped, serrated leaflets

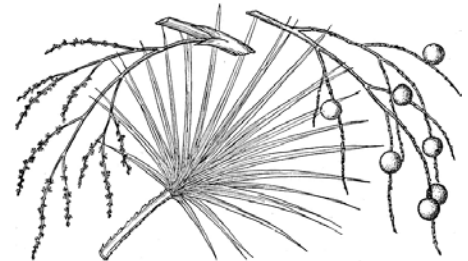
DIVISION ANTHOPHYTA, FLOWERING PLANTS – seeds enclosed in fruit that develops from ovary of flower

CLASS MONOCOTYLEDONAE – one cotyledon (seed leaf), parallel pattern of leaf venation, flower parts in multiples of 3, most not woody

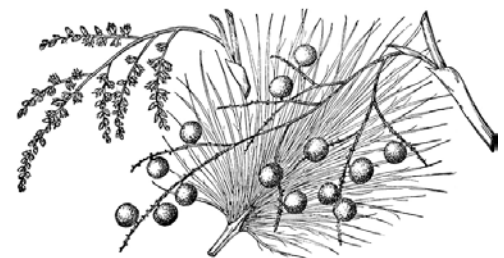


Arecaceae, Palm Family - leaves simple, alternate, blade broad, venation parallel, fruit a berry or drupe

*Serenoa repens*, Saw Palmetto – named for petiole with spines, leaf palmate, some plants have leaves covered with thick wax giving them a silvery appearance, small white flowers used by honeybees to make tasty honey, host for caterpillar of Palmetto Skipper, olive-sized fruit eaten by Florida Black Bear and other wildlife, fruit overharvested in some areas and sold as treatment for prostate problems, symbol of the Florida Native Plant Society dedicated to the preservation, conservation and restoration of Florida native plants and native plant communities



*Sabal palmetto*, Cabbage Palm – petiole not spined, leaf costapalmate, Florida's State Tree, leaf bud sometimes harvested as "swamp cabbage," nectar for pollinators, host for Monk Skipper, birds such as Cedar Waxwings and other wildlife eat the fruit, Carolina Wrens and others eat insects that feed on the leaves



## OWP Trees by Family

### DIVISION CONIFEROPHYTA - seeds borne in cones

Cupressaceae, Cedar Family – most evergreen (deciduous in *Taxodium*), most monoecious (usually dioecious in *Juniperus*), scale-like leaves, above ground "knees" in *Taxodium*, leaves simple, alternate, most with wind-dispersed seeds (bird-dispersed in *Juniperus*)

*Juniperus virginiana*, Southern Redcedar – aromatic foliage and wood, once heavily lumbered in Florida, not a true cedar (i.e., not *Cedrus*), dioecious, birds eat the small blue fruits

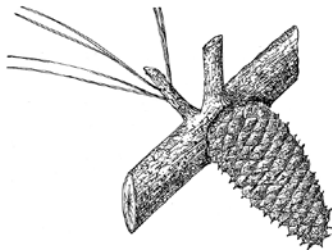


*Taxodium distichum*, Bald Cypress – feather-like branchlets



*Taxodium ascendens*, Pond Cypress – leaves pressed to branches

Pinaceae, Pine Family – evergreen, monoecious, needle-like leaves (needles) simple in tufts (fascicles), alternate, linear to needlelike, male cones with microsporangia (pollen sacs), female cones with 2 winged seeds per scale, seed important food for wildlife such as Eastern Gray Squirrel.



*Pinus palustris*, Longleaf Pine – 13 inch needles, 3 needles/fascicle, 8 inch cones, usually in sandhill or pine flatwoods but without fire habitats change over time into pine/hardwood hammocks

*Pinus elliottii*, Slash Pine - 8 inch needles, 2 to 3 needles/fascicle, 5.5 inch cones, usually found in pine flatwoods but without fire flatwoods change over time into mesic hammocks

### Lauraceae, Laurel Family

*Persea palustris*, Swamp Bay – simple leaf, alternate leaf arrangement, fruit a drupe, develops laurel wilt disease from fungus transmitted by exotic beetle, lower leaf surface with erect wavy trichomes, host for caterpillar of Palamedes Swallowtail and Spicebush Swallowtail, many individuals have galls on leaf edges caused by the red bay psyllid



Magnoliaceae, Magnolia Family - simple, alternate leaf arrangement

*Liriodendron tulipifera*, Tulip-tree or Yellow Poplar – truncate leaves, deciduous, planted in garden, host for caterpillar of Eastern Tiger Swallowtail

*Magnolia grandiflora*, Southern Magnolia – leaves entire, evergreen, leaves leathery and dark green, large white flowers in spring, wind resistant, often found in mesic hammocks

*Magnolia virginiana*, Sweetbay – leaves entire, white below, host for caterpillar of Eastern Tiger Swallowtail, usually in hydric hammocks or swamps



### Moraceae, Mulberry Family

*Morus rubra*, Red Mulberry – alternate leaf arrangement, simple, serrated leaf margin, edible fruit, dioecious



Myricaceae, Bayberry Family

*Myrica cerifera* aka *Morella cerifera*, Wax Myrtle – alternate, simple, serrate, aromatic leaves dioecious, blue waxy fruit an important winter food for Tree Swallows and Yellow-rumped Warblers, fruit used for making bayberry candles



Myrtaceae, Myrtle Family

*Myrcianthes fragrans*, Simpson's Stopper – simple leaves, **opposite** leaf arrangement, margin entire, evergreen, bark smooth and red, flowers white and fragrant, fruit is red

Oleaceae, Olive Family

*Fraxinus caroliniana*, Carolina Ash (aka Pop Ash) – **opposite, compound**, deciduous, fruit a dry, winged samara feed mammals such as squirrels



Rubiaceae, Madder Family

*Cephalanthus occidentalis*, Buttonbush – leaves **opposite**, entire, elliptic, deciduous, white flowers in ball-like cluster that attracts many pollinators



Salicaceae, Willow Family

*Salix caroliniana*, Carolina Willow – alternate, simple, narrow, lanceolate, finely serrated, deciduous, seeds wind dispersed, fast-growing wetland tree, host for caterpillar of Viceroy butterfly, small birds eat seeds



**2B. Opposite Leaf Arrangement** along stem, i.e., two leaves per stem node. Examples: maples, dogwoods



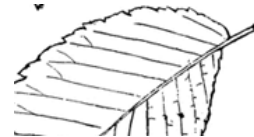
**3. Leaf Margins Entire or Not Entire**

**3A. Leaf Margins Entire**, i.e., smooth with no teeth or other projections on the side. Examples – magnolia, live oak, dogwood, persimmon

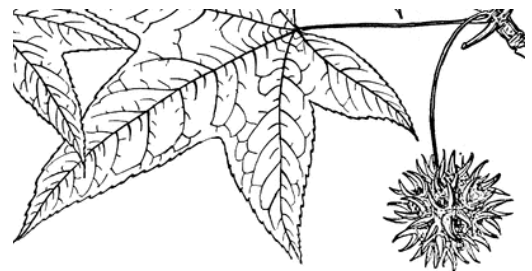


**3B. Leaf Margins Not Entire**, i.e., the edge is serrated or lobed or otherwise not smooth

**Serrated Margins** – Examples: elms, hornbeam, willows



**Lobed Leaves** – Examples: sweetgums, maples



# Tree Distinguishing Characteristics

## 1. Simple Leaves versus Compound Leaves

**1A. Simple Leaves**, i.e., not branched into separate leaflets – Examples: oaks, maples



**1B. Compound Leaves** – with multiple leaflets per leaf. Hint: look for bud at base of leaf but not leaflets. Examples: sumacs, hickories



## 2. Alternate versus Opposite Leaf Arrangement

**2A. Alternate Leaf Arrangement** along stem, i.e., one leaf per stem node. Examples: sugarberry, willows, sumacs



## Sapinaceae, Soapberry Family

*Acer rubrum*, Red Maple – **opposite** leaf arrangement distinguishes it from the somewhat similar Sweetgum, simple, lobed leaves, palmate venation, deciduous with brightly colored leaves in the fall, early nectar for pollinators, fruit a winged samara in spring



## Ulmaceae, Elm Family

*Ulmus americana*, American Elm – simple, alternate, double serrate, asymmetric leaf base, deciduous, host for caterpillar of Question Mark butterfly, wildlife eat its spring-ripening wafer-like fruits when other foods are scarce, Dutch elm disease caused by a fungus transmitted by bark beetles has harmed this elm in some parts of the country



Notes:

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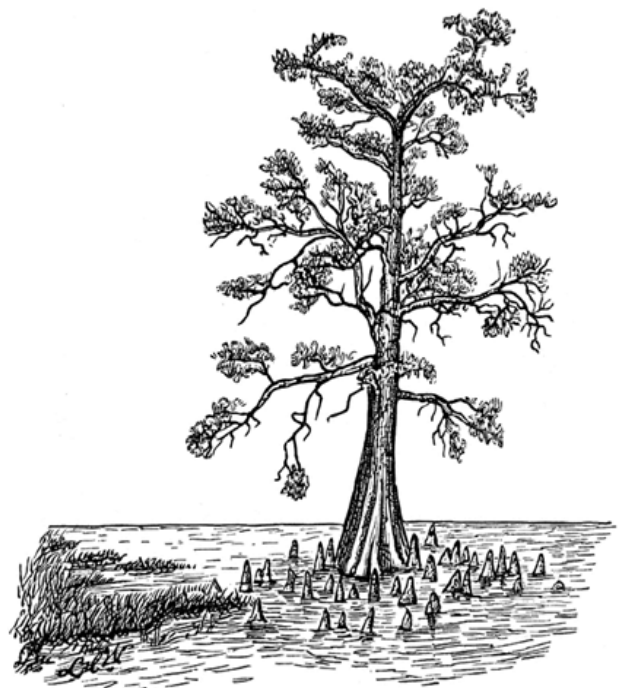
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## Tree Information Sources

- ClipArt ETC of the Educational Technology Clearinghouse produced by the Florida Center for Instructional Technology, University of South Florida <http://etc.usf.edu/clipart/> – **source for clip art for this booklet**
- Florida Forest Service, Florida Department of Agriculture and Consumer Services - Forest Trees of Florida - <http://flame.fl-dof.com/apps/trees.php>
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# Orlando Wetlands Park

# TREES AND TALL SHRUBS



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