Plants are in the Kingdom Plantae with the next lowest ranking the Division, followed by Class, Order, Family, Genus and specific epithet (you probably learned the epithet as the species name). This classification system defines plants from a very broad scale (e.g. Kingdom) to the individual plant (specific epithet). Division names end in “ophyta.” Class names end in “opsida,” Order names end in “ales” and Family names (with some special exceptions) end in “aceae.” Kingdom, Division, Class, Order, and Family names are proper nouns and are capitalized.

The scientific name (species) is made up of the Genus (proper noun = capitalized) and specific epithet (lowercase) – no two plants have the same scientific name. Scientific names are always underlined if handwritten and *italicized* if typed. The genus defines a group of closely related plants, for example all oaks are in the genus – *Quercus*. The specific epithet (species) identifies the individual plant, and is Latinized or Greek. For example the Latin word *rubra* means red. Therefore the scientific name for a northern red oak is *Quercus* *rubra*. The scientific name of the plant is followed by the author, which is not italicized, so the written citation for the northern red oak is – *Quercus* *rubra* L. (the L. stands for Linnaeus). Some authors have initials such as “L.” for Linnaeus; others have full last names (e.g. Walter). Still others have something like “(L.) Rich.” or “Batr. ex Willd.” There are many rules governing the use of initials, full names, part of names, the use of “ex,” etc. Whatever the case, it’s easiest to just accept the way it is currently shown on the species list (or plants.usda.gov).

In this class we will be concerned with two divisions; Coniferophyta and Magnoliophyta. Coniferophyta contains the familiar triangular shaped trees as well as the cedars, cypresses, and pines. For our purposes, Magnoliophyta contains two large Classes; Dicotyledons (Magnoliopsida) and Monocotyledons (Liliopsida). These two terms refer to the number of embryonic leaves (cotyledons) that the plants has; Dicotyledons have two embryonic leaves and Monocotyledons have one. Monocotyledons are the grasses and other simpler plants. Monocots have parallel veined leaves. The Dicotyledons include about 2/3 of all flowering plants. Dicots have the familiar leaves with the center vein plus branching veins coming from it.

Although I have made every effort to ensure current names, scientific names occasionally change because of one protocol or another; in these cases it is easier to just accept the change and move on. However, there are a number of sites that maintain plant classifications with “current” species names and classifications; and they do not always agree.

**In order to avoid confusion, in this class the only acceptable scientific names are either on this list or can be found at** [**plants.usda.gov**](http://plants.usda.gov)**.** The USDA site has a useful interactive ID key that allows you to select multiple characters simultaneously which makes more character data available in the key and minimizes the number of steps it takes to identify a plant.

The list contained on these pages follows the layout of:

Division (example – Magnoliophyta)

Class (example – Magnoliopsida)

Order (example – Fagales)

Family (example – Fagaceae)

*Genus* *specific epithet* author. (common name)

(example – *Quercus rubra* L. (northern red oak)

Gymnosperms

Coniferous, seed bearing trees or shrubs having naked seeds (not enclosed by an ovary).

Coniferophyta (Conifers)

Pinopsida

Pinales

Cupressaceae (Cypress family)

*Juniperus* *virginiana* L. (eastern red cedar)

*Taxodium* *distichum* (L.) Rich. (bald-cypress)

Pinaceae (Pine family)

*Pinus* *echinata* Mill. (shortleaf pine)

*Pinus* *glabra* Walter (spruce pine)

*Pinus* *palustris* Mill. (longleaf pine)

*Pinus* *taeda* L. (loblolly pine)

Angiosperms

True flowering, seed bearing plants, the seeds are produced within the closed ovaries of the pistils of the plant.

Magnoliophyta (flowering plants)

Liliopsida (Monocotyledons)

Cyperales

Poaceae **Gramineae** (Grass family)

*Arundinaria* *gigantea* (Walter) Muhl. (cane)

Liliales

Smilacaceae (Smilax family)

*Smilax* *auriculata* Walter (catbrier)

*Smilax* *bona-nox* L. (greenbrier)

*Smilax* *glauca* Walter (wild sarsaparilla)

Magnoliopsida (Dicotyledons)

Apiales

Araliaceae (Ginseng family)

*Aralia spinosa* L. (devil’s walkingstick)

Celastrales

Aquifoliaceae (Holly family)

*Ilex* *decidua* Walter (possum-haw

*Ilex* *opaca* Aiton American holly

Cornales

Cornaceae (Dogwood family)

*Cornus* *florida* L. (flowering dogwood)

*Cornus* *foemina* Mill. (swamp dogwood)

Nyssaceae (Sour-gum or Tupelo family)

*Nyssa* *aquatica* L. (water tupelo)

*Nyssa* *sylvatica* Marsh. (blackgum)

Hydrangaceae (Hydrangea family)

*Hydrangea* *quercifolia* Bartram (oak-leaf hydrangea)

Dipsacales

Caprifoliaceae (Honeysuckle family)

*Lonicera* *japonica* Thunb. (Japanese honeysuckle)

*Sambucus* *nigra* (L.) R. Bolli (redbud)

*Viburnum* *acerifolium* L. (maple-leaf viburnum)

*Viburnum* *dentatum* L. (arrow-wood)

Ebenales

Ebenaceae (Ebony family)

*Diospyros* *virginiana* L. (persimmon)

Euphorbiales

Euphorbiaceae (Spurge family)

*Triadica* *sebiferum* (L.) Small (Chinese tallow-tree)

Fabales

Fabaceae **Leguminosae** (Legume family)

*Albizia* *julibrissin* Durazz. (silk-tree, mimosa)

*Cercis* *canadensis* L. (redbud)

*Gleditsia* *aquatica* Marsh. (water-locust)

*Gleditsia* *triacanthos* L. (honey-locust)

*Robinia* *pseudoacacia* L. (black locust)

Fagales

Betulaceae (Birch family)

*Alnus* *serrulata* (Aiton) Willd. (hazel alder)

*Betula* *nigra* L. (river birch)

*Carpinus* *caroliniana* Walter (ironwood, American hornbeam)

*Ostrya* *virginiana* (Mill.) K. Koch (hophornbeam)

Fagales (cont.)

Fagaceae (Beech and Oak family)

*Quercus* *acutissima* Carruthers (sawtooth oak)

*Quercus* *alba* L. (white oak)

*Quercus* *durandii* Buckley (Durand oak)

*Quercus* *falcata* Michx. (southern red oak)

*Quercus* *hemispherica* Batr. ex Willd. (laurel oak)

*Quercus* *laurifolia* Michx. (laurel oak)

*Quercus* *lyrata* Walter (overcup oak)

*Quercus* *marilandica* Muenchh. (blackjack oak)

*Quercus* *michauxii* Nutt. (swamp chestnut oak)

*Quercus* *muehlenbergii* Engelm. (chinkapin oak)

*Quercus* *nigra* L. (water oak)

*Quercus* *pagoda* Raf. (cherrybark oak)

*Quercus* *palustris* Muenchh. (pin oak)

*Quercus* *phellos* L. (willow oak)

*Quercus* *rubra* L. (northern red oak)

*Quercus* *shurmadii* Buckley (Shumard oak)

*Quercus* *stellata* Wangenh. (post oak)

*Quercus* *texana* Buckley (Nuttall oak)

*Quercus* *virginiana* Mill. (live oak)

Hamamelidales

Hamamelidaceae (Witch-hazel family)

*Hamamelis* *virginiana* L. (witch-hazel)

*Liquidambar* *styraciflua* L. (sweetgum)

Platanaceae

*Platanus* *occidentalis* L. (plane-tree, sycamore)

Juglandales

Juglandaceae (Walnut or Hickory family)

*Carya* *aquatica* (Michx. f.) Nutt. (water hickory)

*Carya* *illinoinensis* (Wangeh.) K. Koch (pecan)

*Carya* *myristiciformis* (Michx. f.) Nutt. (nutmeg hickory)

*Carya* *ovata* (Mill.) K. Koch (shagbark hickory)

*Juglans* *nigra* L. (black walnut)

Lamiales

Verbenaceae (Vervain family)

*Callicarpa* *americana* L. (beautyberry)

Laurales

Lauraceae (Laurel family)

*Sassafras* *albidum* (Nutt.) Nees (sassafras)

Magnoliales

Magnoliaceae (Magnolia family)

*Liriodendron* *tulipifera* L. (yellow poplar, yulip-tree)

*Magnolia* *grandiflora* L. (southern magnolia)

Malvales

Tiliaceae (Linden family)

*Tilia* *americana* L. (basswood)

Myrtales

Lythraceae (Loosestrife family)

*Lagerstroemia* *indica* L. (crape-myrtle)

Ranunculales

Berberidaceae (Barberry family)

*Nandina* *domestica* Thunb. (nandina)

Menispermaceae (Moonseed family)

*Cocculus* *carolinus* (L.) DC. (moonseed)

Rhamnales

Vitaceae (Grape family)

*Ampelopsis* *arborea* (L.) Koehne (pepper-vine)

*Ampelopsis* *cordata* Michx. (raccoon-grape)

*Parthenocissus* *quinquefolia* (L.) Planch. (Virginia creeper)

*Vitis* *aestivalis* Michx. (summer-grape)

*Vitis* *cinerea* (Engelm.) Engelm. ex Millard (sweet winter-grape)

*Vitis* *palmata* Vahl. (catbird grape)

*Vitis* *rotundifolia* Michx. (muscadine)

Rosales

Rosaceae (Rose family)

*Malus* *angustifolia* (Aiton) Michx. (southern crabapple)

*Malus* *pumila* Mill. (apple)

*Prunus* *serotina* Ehrh. (black cherry)

*Rosa* *palustris* Marsh. (swamp rose)

*Rosa* *carolina* L. (Carolina rose)

*Rubus* *argutus* Link (sawtooth blackberry)

*Rubus* *trivialis* Michx. (southern dewberry)

Rubiales

Rubiaceae (Madder family)

*Cephalanthus* *occidentalis* L. (buttonbush)

Salicales

Salicaceae (Willow family)

*Populus* *deltoids* Bartrum ex Marsh. (eastern cottonwood)

*Salix* *nigra* Marsh. (black willow)

Sapindales

Aceraceae (Maple family)

*Acer* *negundo* L. (box-elder)

*Acer* *rubrum* L. (red maple)

*Acer* *saccharinum* L. (silver maple)

Anacardiaceae (Sumac family)

*Rhus* *copallinum* L. (winged sumac)

*Rhus* *glabra* L. (smooth sumac)

*Toxicodendron* *pubescens* Mill. (poison oak)

*Toxicodendron* *radicans* (L.) Kuntze (poison ivy)

*Toxicodendron* *vernix* (L.) Kuntze (poison sumac)

Hippocastanaceae (Buckeye family)

*Aesculus* *pavia* L. (red buckeye)

*Aesculus* *flava* Aiton (yellow buckeye)

Meliaceae (Mahogeny family)

*Melia* *azedarach* L. (chinaberry)

Scrophulariales

Bignoniaceae (Bignonia family)

*Bignonia* *capreolata* L. (cross-vine)

*Campsis* *radicans* (L.) Seem. ex Bureau (trumpet-creeper, cow-itch vine)

*Catalpa* *bignonioides* Walter (catalpa)

Oleaceae (Olive family)

*Forestieria* *acuminata* (Michx.) Poir. (swamp privet)

*Fraxinus* *americana* L. (white ash)

*Fraxinus* *pennsylvanica* Marsh. (green ash)

*Fraxinus* *profunda* (Bush) Bush (pumpkin ash)

*Ligustrum* *sinense* Lour. (Chinese privet)

Urticales

Moraceae (Mulberry family)

*Morus* *rubra* L. (red mulberry)

Ulmaceae (Elm family)

*Celtis* *laevigata* Willd. (sugarberry)

*Planera* *aquatica* J.F. Gmel. (water-elm)

*Ulmus* *alata* Michx. (winged elm)

*Ulmus* *americana* L. (American elm)

*Ulmus* *rubra* Muhl. (slippery elm)