

**Key to groups/species found in the Wilmington area and  
discussed during the January 22, 2011, workshop**

(J. Taggart; derived partly from Radford et al. [1968] and Weakley [2011])

**FERNS AND FERN ALLIES** (non-flowering herb with vascular tissues)

Plant similar to a coarse moss (small leaves) in appearance, stems elongate and branching

Plant slender and low, rarely more than 5cm tall (**spikemosses**)

Plant pale green; found in moist habitats.....meadow spikemoss

Plant leathery, gray-green; found in dry, sandy habitats.....sand spikemoss

Plant relatively robust, usually 2-50cm tall (**club mosses**)

Horizontal shoots flattened dorsiventrally.....slender clubmoss

Horizontal shoots only slightly flattened

Upright branches 0.5 cm or less thick.....southern bog clubmoss

Upright branches 1cm or more thick.....foxtail clubmoss

Plant with large leaves (fronds) of various subdivisions (**ferns**)

Fronds lobed with no secondary or more divisions.....netted chainfern

Fronds pinnate

Fern typically found in dry habitats (sand ridge, flatwoods)

Fronds 2 to 3-pinnate.....bracken fern

Fern found in moist to wet habitats; fronds not 2 to 3-pinnate

Fronds pinnate, subdivided into separate pinnules.....royal fern

Fronds pinnate and lobed or cut (not subdivided into separate pinnules)

Midrib of frond dark in color.....Virginia chainfern

Midrib light (greenish/fleshy) in color with tufts of

cinnamon-colored hairs.....cinnamon fern

**GYMNOSPERMS** (tree with needles, linear leaves, or scale-like leaves plus seeds borne in cones)

Tree with needles mostly 5cm or longer (**pin**es)

Cone about as broad as long, top-shaped, often closed.....pond pine

Cone distinctly longer than broad when open or closed

Needles in bundles of three, 7-16 cm long.....loblolly pine

Needles in bundles of two to four, 20-50 cm long.....longleaf pine

Tree with linear or scale-like leaves less than 5cm long

Tree with evergreen scale-like needles and small (<2.5cm in diameter)

female cones (**cedars**)

berry-like, blueish cones; dry habitat.....red cedar

brown cones when mature; wet habitat.....Atlantic white cedar

Tree with deciduous linear leaves and cones generally >2.5cm (**cypresses**)

leaves appressed along the stem.....pond cypress

leaves spreading along the stem.....bald cypress

**ANGIOSPERMS** (tree, shrub, vine, or herb that produces flowers and fruit)

**Plant with net-veined leaves and flower parts generally in fours or fives (dicots)**

Tree

- opposite leaves
  - fruit a winged samara
    - compound leaves.....white ash
  - simple leaves
    - leaves finely to coarsely toothed.....red maple
    - leaves not toothed or with rounded teeth.....sugar maple
  - fruit a red drupe.....flowering dogwood
- alternate leaves
  - simple leaves
    - flowers with large (>2cm) white petals
      - leaf underside glaucous.....sweet bay
      - leaf margin serrate.....loblolly bay
    - flowers reduced, either small or no visible petals
      - fruit an acorn (oaks)
        - leaf margin lobed.....white oak
        - leaf margin toothed.....turkey oak
        - leaf margin entire
          - evergreen glossy leaf.....live oak
          - deciduous to semi-evergreen leaf; not glossy.....laurel oak
      - fruit a spiky capsule; palmately-lobed leaves with sharp points.....sweetgum
      - fruit a black drupe, entire leaves
        - small to large tree growing in an upland habitat.....black gum
        - shrub to large tree typically growing in a wetland habitat
          - crushed leaf not aromatic; deciduous.....swamp black gum
          - crushed leaf aromatic; evergreen.....red bay
        - fruit a red drupe; evergreen leaves.....American holly
      - fruit a samara
        - leaves often triangular with rounded to coarse teeth;
          - trunk shaggy.....river birch
        - leaves with fine teeth; trunk smooth .....coastal American hornbeam (musclewood)
    - compound leaves
      - more than 10 leaflets
        - mature fruit spherical, often aromatic.....black walnut
        - mature fruit breaking into four valves.....pecan
      - less than 10 leaflets, densely pubescent.....mockernut hickory

Shrub

- Shrub with white, elongated bilaterally symmetrical flowers.....dwarf azalea
- Shrub with radially symmetrical flowers
  - Leaves (usually elliptic) with distinct, pointed teeth.....sweet gallberry

- Leaves either entire, with rounded teeth, or crenate margins
  - Leaf underside with golden, dot-like glands
    - Leaves usually oblanceolate (1.5-4cm long); berry black
      - .....dwarf huckleberry
    - Leaves elliptic (2.5-7cm long); berry glaucous-blue.....dangleberry
  - Leaves without glands
    - Leaves evergreen, elliptic, glabrous and entire.....fetterbush
    - Leaves deciduous, elliptic, glabrous and entire.....staggerbush
    - Leaves deciduous, pubescent, elliptic, and entire.....highbush blueberry
    - Leaf margins crenate (scalloped)
      - Leaves crenate along entire margin; female with red drupes
        - .....yaupon
      - Leaves crenate near tip or apex.....inkberry

Vine (or trailing growth habit)

- Leaves compound
  - Leaflets palmate, usually in fives.....Virginia creeper
  - Leaflets in pairs (bi-geminate).....cross vine
  - Leaflets bi- or tri-pinnate
    - Flowers red to orange and bilaterally symmetrical.....trumpet creeper
    - Flowers small and in clusters (cymes); not colorful.....peppervine
- Leaves simple
  - Leaves crenate toward apex, less than 2.5cm long.....creeping blueberry
  - Leaves greater than 2.5cm long
    - Flowers yellow and aromatic.....yellow jessamine
    - Flowers not yellow, fruit a berry (grape)
      - Leaves shallowly to deeply lobed.....summer grape
      - Leaves mostly round.....muscadine

Herb

- Flowers modified into heads composed of both disk and/or ray flowers
  - Both disk and ray flowers present
    - Rays yellow.....goldenrod
    - Rays white to blue.....aster
    - Rays purple
      - Heads in spikes (sessile flowers along a main axis).....blazing star
      - Head in panicles.....chaffhead/vanillaweed
  - Only ray flowers present; milky sap in leaves.....dandelion
- Flowers not in heads of disk and/or ray flowers
  - Flowers in clusters known as umbels (flowers stalks of same length from a common point -- like ribs of an umbrella) ; leaves simple
    - Plant leaves and stem with milky sap.....milkweed/dogbane
    - Plant leaves and stem without milky sap.....umbellifers (e.g., Queen Anne's lace)
  - Flowers not in umbels
    - Leaves compound and in threes (trifoliate)

- Flowers large, yellow; fruit a papery legume.....wild indigo
- Flowers pink to purple; fruit a loment that sticks to your  
clothes.....tick trefoil
- Leaves simple and linear; flowers purple; fruit a capsule.....foxglove

**Plant with parallel-veined leaves and flower parts in threes (**monocots**)**

Tree

- Terminal clusters of palmately-divided leaves.....cabbage palmetto

Shrub

- Plant a woody grass.....cane
- Plant not a grass
  - Plant with a short stem and palmately-divided leaves.....dwarf palmetto
  - Plant with long narrow, undivided leaves
    - Plant basal with filamentous threads along leaf margins.....bear grass
    - Plant erect (up to 3m in height) with sharp-pointed leaves.....Spanish bayonet

Vine

- Leaves round in shape.....common greenbrier
- Leaves not round in shape; leaves glaucous beneath.....whiteleaf greenbrier

Herb

- Plant narrow, grass-like without colored flowers
  - Plant with round, hollow stem.....grass
  - Plant with round, solid stem.....rush
  - Plant with triangular stem (“sedges have edges”).....sedge
- Plant with colored flowers
  - Flower bilaterally symmetrical
    - Leaves folded (equitant); flower blue to purple.....blue flag
    - Leaves not folded
      - Flowers yellow to orange along an axis (peduncle).....yellow fringed orchid
      - Flower rose to white, one to three in number.....rose pogonia
  - Flower radially symmetrical
    - Plant with whorled leaves and showy red flower(s).....pine lily
    - Plant with basal leaves only
      - Leaves folded (equitant).....blue-eyed grass
      - Leaves not folded
        - White to purple flower(s).....onion
        - Yellow flower(s).....yellow star grass