Landowner’s Guide to Shrubs, Forbs, Vines and Grasses of North Florida

To accompany the:

Forest Stewardship Workshop/Hike: 
Tree/Plant Identification for Forestland Owners
May 19, 2009 at Morningside Nature Center, Gainesville, FL

Plant Identification Methods by Dr. Alan Long
Compiled and organized by Chris Demers and Alan Long

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Plant Identification for Forestland Owners

Morningside Nature Center, Gainesville, FL

May 19, 2008

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Web Sites:

UF/IFAS Florida Forestry Information web site (www.sfrc.ufl.edu/Extension/ffws/ffwshome.htm)


USDA Plants Database: (http://plants.usda.gov/)

University of South Florida, Institute of Systematic Botany, Atlas of Vascular Plants: (http://florida.plantatlas.usf.edu/)

Virginia Tech dendrology page (http://www.cnr.vt.edu/dendro/wwwmain.html)
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21 *Vaccinium myrsinites* shiny/ground blueberry SAP B Eric
23 *Crotalaria rotundifolia* rabbitbells SA ann L Fab
14 *Carpephorus* sp. deertongue, vanilla leaf, paintbrush SA per A Aster
22 *Cnidoscolus stimulatus* tread-soffly SA per CA Euphorbi
14 *Elephantopus* sp. elephantsfoot SA per A Aster
15 *Erigeron* sp. fleabane SA per A Aster
17 *Licania michauxii* gopher apple SA per D Chrysobalan
15 *Pityopsis graminifolia* grassleaf goldenaster SA per A Aster
16 *Pteroaulon pycnostachyum* rabbit tobacco, blackroot SA per A Aster
14 *Elephantopus* sp. eastern redcedar sc C-fl Cupress
21 *Acer rubrum* red maple SOD SA Acer
28 *Callicarpa americana* American beautyberry SOD D Verben
32 *Cornus florida* flowering dogwood SOD D Corn
27 *Cephalanthus occidentalis* buttonbush SOD/W NL-M Rubi
26 *Eriogonum* sp. wild buckwheat SOD/W NL Polygon
18 *Hypericum capillifolium* St. Johnswort SOP CA Clusi
16 *Verbesina heterophylla* diverseleaf crownbeard SO per A Aster

**Fruit**

A= achene L= Legume
AC= acorn m= multiple
ag= aggregate N= Nut (or NL nutlet)
B= berry P= Pome
C= cone S= Samara
CA= capsule SCH= Schizocarp
CAR= caryopsis sp= Spore
D= drupe U= Utricle
F= follicle
MORPHOLOGY & IDENTIFICATION

1) Methods for identifying unknowns
   a) Illustrations in state & regional guides
   b) Herbarium specimens & experts
   c) Arboreta
   d) Identification keys -- especially dichotomous

2) Characteristics for identification
   a) Habitat/ecosystems -- ie where does it occur geographically & ecologically
   b) Form -- growth & shape patterns
   c) Bark
   d) Vegetative -- leaves, twigs, buds
   e) Reproductive -- flowers, fruit
   f) Odor/taste

3) Using keys
   a) Basic pattern: 2 options
   b) Example with pines & oaks

4) Growth habits
   a) Form -- limited use in identification
      i) Open grown
      ii) Forests
   b) Growth rates -- important trait, but not good for i.d.

5) Species ranges
   a) Natural range
      i) limited by various ecological factors
      ii) very large to very small
      iii) changing on geological time scales
   b) Altitudinal distributions in mountains
      i) elevational belts
      ii) lower in north ends of ranges than in south
   c) Commercial range -- usually less than natural range
   d) Naturalized range

Vegetative characteristics

1) Bark
   a) "A picture is worth a thousand words"
   b) Reliable & accessible in winter
   c) A first identification "filter" as you walk up to tree
   d) Characteristics
      --Texture, roughness & thickness
      --Color
      --Depth/width/shape of furrows & ridges
      --Lenticels
2) **Twigs** - Focus on last 1 or 2 years growth
   a) Buds
      i) Terminal vs lateral or pseudoterminal
      ii) Naked vs scaly (imbricate or valvate)
   b) Leaf scars -- Size & shape; Vascular bundle scars
   c) Stipule scars
   d) Lenticels -- useful for a few species
   e) Pith -- shape, color & composition
   f) Lammas shoots & epicormic branching
   g) Sharp objects -- thorns, spines, prickles

3) **Leaves**-- one of your main diagnostic tools
   a) **Complexity** (Clue: lateral buds arise in leaf axils)
      i) Simple
      ii) Compound
         -- pinnately
         -- trifoliate
         -- palmately
   b) **Arrangement** (Clue: branching follows same pattern)
      i) Alternate
      ii) Opposite
      iii) Whorled
   c) **Persistence** (Clues: leaves on last years twigs; bud scales)
      i) Deciduous
         SAD, CAD, SOD, COD
      ii) Persistent (or tardily deciduous)
         SAP, CAP, SOP, COP
      iii) Perennial
   d) Venation -- 4 basic patterns
      i) Pinnate
      ii) Arcuate
      iii) Palmate
      iv) Parallel
   e) Shapes -- whole leaf, base, apex
   f) Surfaces & thickness
   g) **Conifer leaves**
      i) Scales
      ii) Needles (different # per fascicle)
      iii) Linear
      iv) Awl
Reproductive structures

1) Best diagnostic feature, but . . .
   a) Types of flowers (both Gymnosperms and Angiosperms)
      i) Perfect
      ii) Imperfect
          -- Monoecious
          -- Dioecious

2) Gymnosperms
   a) Seed cones (female)
      i) Ovules/seeds borne on scales, stalks, or modified leaves
      ii) Cone scales vary by:
          -- texture
          -- configuration
          -- apophysis
          -- umbo, with or without armament
      iii) Cone maturation & persistence

3) Angiosperms
   a) Flower morphology
      i) General structures -- sepals, petals, stamens, pistil
      ii) Types
          (1) Complete -- all 4 parts
          (2) Incomplete -- missing 1 of parts
              (a) Imperfect -- missing pistil or stamen
          (3) Regular -- symmetrical in all planes
   b) Inflorescence -- arrangement of multiple flowers
      i) Location -- terminal vs axillary
      ii) Types
          (1) Cyme
          (2) Spike
          (3) Raceme
          (4) Panicle
          (5) Corymb
          (6) Umbel
          (7) Head
          (8) Catkin
   c) Fruit (ripened ovary) & seeds (ripened ovules)
      i) Simple fruits -- from single pistil
          (1) Dry, indehiscent -- acorn, nut, achene, samara
          (2) Dry, dehiscent -- legume, capsule, follicle
          (3) Fleshy -- drupe, berry, pome
      ii) Compound -- from multiple pistils
          (1) Aggregate (1 flower, common receptacle)
          (2) Multiple (>1 flower, often in head
FLORIDA ECOSYSTEMS

Cypress Swamps/Ponds
* Near, or in, standing or running water
* Dominated by baldcypress & pondcypress; other species include: willow, blackgum, red maple
* Many birds and animals
* High value for recreation, wildlife, environmental protection

Hardwood Swamps
* Border rivers and in wet basins
* Soils very poorly drained, dark, medium-coarse textures; Periodic flooding is essential
* Dominated by deciduous hardwoods (eg red maple, water tupelo, green ash, elm, etc); baldcypress
* Important for watershed protection & wildlife (that can move out of area during wet periods)

Flatwoods
* Throughout Florida; level topography; poorly drained; shallow water table; often w/ interspersed wetlands
* Sandy soils, often with a spodic layer
* Open pine woodland, dominated by slash and longleaf
* Succeeds to hardwoods (oaks, persimmon) if fire absent
* Understory dominated by saw palmetto, gallberry, bracken fern and huckleberry
* Diverse wildlife
* Extensively used for timber production & grazing

Hardwood Hammocks
* North central Florida; small communities
* Sandy to clay soils
* Xeric, mesic and hydric communities
* Dense stands of shade tolerant hardwoods, such as beech, holly, black cherry, laurel oak, live oak, sweetgum, magnolia, hophornbeam, hornbeam, dogwood, hickory etc
* Mixed evergreen-deciduous forest with large number of tree and shrub species per unit area
* Climax vegetation of ecological succession
* Understory may be fairly open; good wildlife habitat
* Valuable for development, watershed protection, timber production

Oak Hammocks
* Variant of upland hardwood hammocks
* Dense laurel and live oak, cabbage palms in south Florida
* Soils poorly drained, often with limestone near surface
* Variety of uses
Longleaf Pine -- Turkey Oak Hills
* Throughout state, north of Lake Okeechobee
* Sandy soils, well to excessively well drained
* 2 dominant tree species, with fairly sparse ground cover & few shrubs
* Frequent fire is important
* Variety of wildlife species, including some T&E
* Good for urban development, timber, pasture, irrigated farming

Sand Pine Scrub
* Uncommon; on deep, excessively-well drained sandy soils
* Dominated by sand pine (even aged) and/or thick, scrubby oak with some palmetto
* Fire-based community, needing intense fire every 20-40 years;
* Number of T&E species
# Shrubs and Forbs

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winged sumac
Latin name: *Rhus copallina*
Family: Anacardiaceae

**Leaves:** shiny green, compound, alternate, and deciduous with 9-23 leaflets and green, wing-like leafy projections on the rachis.

**Twigs:** red-brown with hair and conspicuous lenticels.

**Bark:** warty and red-brown.

**Flowers:** green-white

**Fruit:** cluster of red-brown drupes.

**Habitat:**
Winged sumac is a shrub to small tree forming thickets in open areas in the east and central U.S.

**Use:** The fruits are eaten by many birds and are very tart.

**Contrast poison sumac and poison ivy (also in Anacardiaceae family):**

Poison sumac (Toxicodendron vernix), shrub with 7 to 15 leaflets per leaf; red rachis and twigs, yellowish flowers, no wings on rachis.

Poison ivy (Toxicodendron radicans) → vine, 3 leaflets per leaf.
narrowleaf (or slimleaf) pawpaw
Latin name: *Asimina angustifolia*
Family: Annonaceae

**Leaves:** simple, alternate, deciduous, leathery, long-linear, and up to 8-10 inches long, margins often rolled under. When crushed, they smell like green peppers.

**Twigs:** light brown with maroon hairs; buds are naked with velvety maroon hairs.

**Flowers:** April-June, yellow-white, sometimes tinged with purple, fragrant.

**Fruit:** July-September, yellow-green berry.

**Habitat:** dry to moist sites, flatwoods, sandhills, old fields, pastures.

**Use:** The fruit is eaten by squirrel, fox, raccoon and small animals.

gallberry (or inkberry)
Latin name: *Ilex glabra*
Family: Aquifoliaceae

**Leaves:** leathery, simple, alternate, persistent; elliptical, shiny yellowish green above and lighter green with tiny red glands below. The leaf margin is entire with several, usually 3, small teeth on the upper margin.

**Stem/Twigs:** New stems are light green and slightly hairy but they gradually turn brown and smooth with age.

**Fruit:** The fruit is a dry, round, shiny, black drupe, about ¼" wide. The solitary fruits persist throughout most of winter and contain five to seven seeds.

**Habitat:** Gallberry frequently grows in acidic soil including flatwood forests, sandy wetlands, swamps, and frequently burned areas.

**Use:** The fruit is eaten by many birds and mammals.
devils walking-stick
Latin name: *Aralia spinosa*
Family: Araliaceae

**Leaves:** bi- or tripinnately compound, alternate, toothed, and deciduous with spiny petioles and a spiny rachis.

**Twigs:** stout with sharp prickles surrounding U-shaped leaf scars.

**Bark:** brown and rough with many sharp thorns.

**Flowers:** showy with a green-white hue and very noticeable in summer.

**Fruit:** black juicy drupe.

**Habitat:** appears as a giant barbed stick or walking cane on a range of sites in the southeastern U.S. and is intolerant of shade.

**Use:** The fruit is eaten by birds.

---

Saw palmetto
Latin name: *Serenoa repens*
Family: Arecaceae

**Leaves:** fan-shaped, densely crowded, with small curved spines along margins.

**Flowers:** March-July, large cluster of spikes of non-showy flowers.

**Fruit:** October-February, fleshy golden-green drupe, ripening to black to bluish black.

**Habitat:** flatwoods, dry to seasonally flooded habitats, sand ridges.

**Use:** fruit is eaten by bear, deer and hogs, important honey plant.
**deertongue, chaffhead, vanillaleaf, Florida paintbrush**  
**Latin name:** *Carphephorus* spp.  
**Family:** Asteraceae

**Leaves:** large leaves in basal rosette, flat to erect, green to blue-green, various shapes depending on species.

**Stem:** stem protrudes from center of leaf rosette, slender and forking into flower clusters.

**Flowers:** terminal tight clusters of white, pink or purple flowers.

**Fruit:** nutlet.

**Habitat:** range of new and open forest sites.

**Use:** browsed by deer.

---

**elephant’s foot**  
**Latin name:** *Elephantopus* spp.  
**Family:** Asteraceae

**Leaves:** large leaves in basal rosette, flat on ground, resembling elephant footprint, from a woody rootcrown.

**Stem:** stem protrudes from center of leaf rosette, slender and forking into flower clusters.

**Flowers:** terminal tight clusters of pink or purple aster-type flowers.

**Fruit:** tapered nutlet with 5 barbed bristles.

**Habitat:** range of new and open forest sites.

**Use:** flowering heads occasionally eaten by deer but low preference.
fleabane
Latin name: *Erigeron* *spp.*
Family: Asteraceae

**Leaves:** simple, alternate, various shapes.

**Stem:** upright, slender, forking into flower clusters.

**Flowers:** spring-fall, terminal heads of ray flowers, white to lavender to blue; flower stalks have no leaves.

**Fruit:** seeds in plumed nutlet.

**Habitat:** range of new or open forest sites.

**Use:** occasionally eaten by deer.

---

grassleaf goldenaster (or narrowleaf silkgrass)
Latin name: *Pityopsis graminifolia*
Family: Asteraceae

**Leaves:** parallel veined, silvery green, grass-like blades. They are 8" to 14" long, ½" to 1" wide, and covered with silky hairs.

**Stem:** flower stem is stiff and upright. There may be one to several stems that are covered with silky hairs.

**Flowers:** small, yellow aster, 12-14 petals.

**Fruit:** a linear seed, about 1/8" long and is reddish-brown to black. The fruit has whitish-tan bristles on top that are about ¼" long.

**Habitat:** grows in dense colonies on open, dry places, including young tree plantations, open forests, and forest margins. It can also be found in other conditions but only as scattered plants.

**Use:** Goldenaster is an important food for gopher tortoises; grown as an ornamental because of its attractive yellow flowers that attract butterflies.
blackroot, rabbit tobacco  
**Latin name:** *Pterocaulon pycnostachyum*  
**Family:** Asteraceae

**Leaves:** The leaves are simple, alternately-arranged, and linear to lanceolate with obvious wings along the sides of the stem. Leaves and stems are covered with soft, fuzzy hairs.

**Stem:** flower stem is stiff and upright. There may be one to several stems that are covered with silky hairs.

**Flowers:** erect inflorescences with fuzzy, whitish, spiral florets.

**Fruit:** capsule

**Habitat:** open flatwoods and moist meadows, prefers full sun.

**Use:** eaten my many animals.

---

diverseleaf crownbeard  
**Latin name:** *Verbesina heterophylla*  
**Family:** Asteraceae

**Leaves:** all or mostly opposite 1.2 - 3.2 inches long, opposite, oblong to oval, rough-hairy, with small blunt teeth; no leaf stalks but leaf tissue continues onto the stems as wings

**Flowers:** yellow, solitary heads on stiff, slender stalks.

**Fruit:** winged, brown linear seed.

**Habitat:** Mesic flatwoods, dry woods.

**Use:** browsed by deer.
**elderberry**  
**Latin name:** *Sambucus Canadensis*  
**Family:** Caprifoliaceae

**Leaves:** pinnately and bipinnately compound, opposite and deciduous; elliptical or lance shaped leaves; leaf margin sharply serrated.

**Bark:** light grayish brown bark is smooth and thin with small protuberances; with maturity the bark becomes slightly fissured and rough.

**Flowers:** inflorescences are relatively large, about 6" to 12" wide; flat-topped clusters are showy white and somewhat fragrant.

**Fruit:** purple-black berrylike drupe that occurs in drooping clusters in the summer and early autumn.

**Habitat:** grows in the moist soils of wetland areas near lakes, swamps, wet woodlands, and canals.

**Use:** fruit is eaten by over 50 species of songbirds. Other birds such as wild turkey, ruffed grouse, and mourning doves also eat the fruit. White-tailed deer sometimes feed on the leaves.

---

**gopher apple**  
**Latin name:** *Licania michauxii*  
**Family:** Chrysobalanaceae

**Leaves:** simple, alternate, elliptical; distinctive shiny, lime-green color on upper surface, paler or whitish, often fuzzy beneath.

**Twigs/stems:** often reddish-brown.

**Flowers:** small, terminal, white clusters that bloom from late spring through summer.

**Fruit:** an elliptical drupe, about 1" long, that turns from green to purplish when ripe.

**Habitat:** grows best in dry sandhills and is often found along upland ridges and roadsides. It is a common resident of turkey oak habitats.

**Use:** the fruit has sweet, juicy pulp and is a popular food plant for gopher tortoises and numerous other wildlife eat the fruit.
St. John’s-wort
Latin name: *Hypericum* spp.
Family: Clusiaceae

**Leaves:** simple, opposite, persistent, usually small, whorled leaves.

**Flowers:** in upper leaf axils, 4 or 5 petals, usually yellow, some pink.

**Fruit:** oval capsule that splits lengthwise to release numerous seeds.

**Habitat:** 30 species in Southeast, variety of sites.

**Use:** limited browse by deer, seeds sometimes eaten by quail.

---

dwarf huckleberry
Latin name: *Gaylussacia dumosa*
Family: Ericaceae

**Leaves:** simple, alternate and deciduous, blue-glossy dark green above, tip rounded with short point, pale green beneath.

**Twigs:** slender, red-brown to gray, hairy.

**Flowers:** March-June, white-pinkish.

**Fruit:** shiny black drupe, not sweet, June-October.

**Habitat:** wet and well-drained flatwoods, sandhills, along margins of swamps.

**Use:** fruit eaten by quail, turkey, squirrel, deer, songbirds.
blue huckleberry (dangleberry)
Latin name: *Gaylussacia frondosa*
Family: Ericaceae

**Leaves:** simple, alternate and deciduous, blue-green, tip indented, fine yellow, hairy resinous dots below. Rub lower surface on paper to verify genus. If it colors paper yellow it’s a gaylussacia.

**Twigs:** slender, may be hairy.

**Flowers:** greenish-white to pinkish.

**Fruit:** blue and white waxy, sweet and juicy, June-August.

**Habitat:** wet and well-drained flatwoods, sandhills, along margins of swamps.

**Use:** fruit eaten by quail, turkey, squirrel, deer, songbirds.

---

hairy wicky or laurel
Latin name: *Kalmia hirsuta*
Family: Ericaceae

**Leaves:** simple, alternate and persistent, thick, erect, whorled, green to dark green.

**Twigs:** light brown-green, hairy.

**Flowers:** April-May, clusters of white and pink saucer-star-shaped flowers.

**Fruit:** 5-celled capsule.

**Habitat:** flatwoods to well-drained sandhills.

**Use:** used lightly by deer.
**Coastal plain staggerbush**

**Latin name:** *Lyonia fruticosa*  
**Family:** Ericaceae

**Leaves:** simple, alternate and persistent, green to rusty-gray-green, rusty beneath, yellowish midvein.

**Twigs:** stem densely white-hairy and pale green, becoming less hairy and golden brown.

**Flowers:** April-May, white, clusters.

**Habitat:** flatwoods to well-drained sandhills.

**Use:** important nectar source.

---

**fetterbush (stagger-bush, shiny lyonia)**

**Latin name:** *Lyonia lucida*  
**Family:** Ericaceae

**Leaves:** simple, alternate and persistent, dark green and glossy above, lighter green and dull beneath, whitish midvein.

**Twigs:** lime green, flattened with loose scales.

**Flowers:** light pink, March - June.

**Habitat:** variety of sites including forested wetlands and flatwoods.

**Use:** important nectar source.
**sparkleberry (or tree sparkleberry)**  
*Latin name: Vaccinium arboreum*  
*Family: Ericaceae*

**Leaves**: simple, alternate, tardily deciduous, oval to elliptical in shape, ½ - 2 inches long, shiny, dark green, and with irregular red teeth on the margin.

**Twigs**: red and scaly.

**Bark**: red-brown and shreddy.

**Flowers**: white and bell-shaped.

**Fruit**: round black berry.

**Habitat**: Sparkleberry is a shrub to small tree found on a variety of sites in the southeastern US; intermediate shade tolerance.

**Use**: The fruits are eaten by many animals.

---

**ground blueberry (shiny blueberry)**  
*Latin name: Vaccinium myrsinites*  
*Family: Ericaceae*

**Leaves**: small, simple, alternate, deciduous; very small - usually ¼" to ½" long, elliptic in outline and shiny green to grayish green.

**Twigs**: light green, slender and ascending, somewhat zig-zagging growth.

**Flowers**: March-April, urn or vase shaped, white to pinkish, in clusters.

**Fruit**: black berry, juicy and sweet when ripe.

**Habitat**: wet to dry pine forests and scrub areas, usually in open habitat.

**Use**: The fruits are eaten by many animals. Leaves moderately preferred by deer.
**deerberry**  
*Latin name: Vaccinium stamineum*  
*Family: Ericaceae*

**Leaves:** simple, alternate and deciduous with a dark green, waxy color on the upper surface and a distinctly lighter, bluish-white underside. Leaves and stems may occasionally be hairy.

**Twigs:** green to green-gray, sometimes hairy.

**Flowers:** small, white, cup-shaped, and drooping with a leafy bract attached. They have numerous long, yellow stamen sticking out beyond the petals.

**Fruit:** tiny, blue, slightly bitter berry.

**Habitat:** grows well in both mixed upland and flatwoods habitats. It prefers moist soils but tolerates dryer areas as well.

**Use:** The fruits are eaten by many animals.

---

**tread softly**  
*Latin name: Cnidoscolus stimulosus*  
*Family: Euphorbiaceae*

**Leaves:** simple, alternate and persistent, whitish veins, stinging hairs beneath.

**Stem:** stout, v-branched, light green, bristly stinging hairs.

**Flowers:** late March-August, terminal clusters of white flowers, monoecious.

**Fruit:** upright, spherical pods, covered with stinging hairs, dark brown hairs.

**Habitat:** sandy dry forests, right-of-ways, pastures, old fields.

**Use:** infrequent food of quail and songbirds.
partridge pea  
Latin name: *Chamaecrista fasciculata*  
Family: Fabaceae

**Leaves:** alternate, pinnately compound; leaflets in rows of 6-8 pairs.

**Twigs/stems:** moderately stout, brown or green, sometimes hairy.

**Flowers:** bright yellow, irregular, May-September.

**Fruit:** oblong, flat pod, November-December.

**Habitat:** abundant in 1-2 year old forest plantations, open fields and open forests. Establishment is improved by burning.

**Use:** important component of winter diet of Bobwhite quail, moderately preferred by white-tailed deer; larval food plant for several butterflies.

---

rabbit bells  
Latin name: *Crotalaria rotundifolia*  
Family: Fabaceae

**Leaves:** alternate, simple, oval, shiny above, paler below.

**Twigs/stems:** brown-redish brown.

**Flowers:** May-October. yellow pea-type flowers, terminal.

**Fruit:** legume pod.

**Habitat:** variety of forest sites.

**Use:** seeds eaten by quail.
desmodium
Latin name: *Desmodium* spp.
Family: Fabaceae

**Leaves:** alternate, compound with 3 leaflets, broad to linear with stipules at the base of each petiole.

**Twigs/stems:** slender, sometimes hairy, varies by species.

**Flowers:** pea-type, irregular, pink, purple or white. July-October.

**Fruit:** flat pod covered with bristled and hooked hairs, October-February.

**Habitat:** open forests, dry forests, right-of-ways, edges.

**Use:** among the most important component of Bobwhite quail diet, also highly preferred by deer, grouse and turkey.

coralbean
Latin name: *Erythrina herbacea*
Family: Fabaceae

**Leaves:** compound, tri-fooliate, delta, or spade-shaped, alternately arranged; leaves are dull, yellowish-green, and smooth both above and below and are borne on short stalks.

**Twigs/stems:** Stems are slender and lined with tiny spines.

**Flowers:** bright, scarlet-red, tubular blossoms that are clustered on long stalks and they bloom in May and June.

**Fruit:** dry pod (legume), about 4" to 6" long that bears bright, reddish-orange seeds.

**Habitat:** grows in a variety of habitats, prefers sandy loam soils and is most frequently found in mesic hardwood hammocks, open, sandy woods, disturbed sites, or clearings. It is somewhat tolerant of salt and may be found in open sites near salt water.

**Use:** commonly used by butterflies and hummingbirds it is popular with other birds and small wildlife who consume the large seeds in late summer and fall.
milk pea
Latin name: *Galactia* spp.
Family: Fabaceae

**Leaves:** alternately arranged and compound. Leaflets are ovate, up to 3" long and 1 ½" wide, with rounded bases and leaf tips, often a tiny point, or indentation at the tip; underside of leaves is often covered with downy hairs.

**Flowers:** small, pink, or purple flowers less than 1" long and pea-like. They grow on stalks that are often shorter than the leaves.

**Fruit:** long, thin, flattened, hairy pod, about 3" long, that holds 2 to 8 seeds.

**Habitat:** grows well in moist to dry sites and in open to semi-shady forest plantations, flatwoods, and sandhills.

**Use:** important part of the quail diet, also eaten by other birds and small mammals. The blossoms attract butterflies and the vegetation is frequently used as a host site for developing caterpillars. Animals are the main dispersers of the plant's seeds.

---

red buckeye
Latin name: *Aesculus pavia*
Family: Hippocastanaceae

**Leaves:** opposite, palmately compound, deciduous; 5 leaflets; dark green above, fine hairs beneath, margins finely serrate.

**Flowers:** many bright red tubular flowers, projecting from terminal red stalk.

**Fruit:** dark blue-black drupe with 1 seed, about 1 inch long; occasionally covered with a whitish layer.

**Stem/Twigs:** twigs greenish gray to reddish, bark gray and smooth, with light yellow dots.

**Habitat:** fertile, moist, forests and on swamp margins.

**Use:** squirrel and hogs eat seeds but toxic to humans and livestock; important nectar source for hummingbirds.
Virginia sweetspire or willow  
**Latin name:** *Itea virginica*  
**Family:** Iteaceae

**Leaves:** simple, alternate, deciduous, elliptic in shape with tapering tips and bases, margins slightly serrate.

**Flowers:** April-June, upright terminal, cylindrical racemes, 5-15 cm long, white or pale-pink.

**Fruit:** July-February, cylindric capsules along stalk.

**Stem/Twigs:** twigs hairy, green, turning red and hairless, branches erect or arching.

**Habitat:** along water edge of streams and rivers, in swamps, full sun or shade.

**Use:** eaten by deer, flowers visited by butterflies.

---

wild buckwheat  
**Latin name:** *Eriogonum* spp.  
**Family:** Polygonaeceae

**Leaves:** simple, opposite/whorled, deciduous.

**Twigs/stems:** forking to flower clusters.

**Flowers:** July-September, white-pink, in terminal clusters.

**Fruit:** nutlet.

**Habitat:** variety of open forest sites.

**Use:**
**blackberry**  
*Latin name:* *Rubus* spp.  
*Family:* Rosaceae

**Leaves:** compound and alternately arranged, with 3 to 5 leaflets on each leaf; upper surface of leaflets is dark grayish-green and fuzzy while the underside is paler, fuzzy with prickles along the midrib.

**Twigs:** adorned with many thorns.

**Flowers:** Small, white, 5-petaled flowers grow in loose clusters near the tips of the branches.

**Fruit:** edible cluster of tiny drupelets that turn deep bluish-black when ripe. Each cluster is about ¾ o 1" long.

**Habitat:** Blackberry grows well in a variety of soil types and locations from dry, sandy upland areas to flatwoods and stream banks. It is a common roadside and fence line plant.

**Use:** The fruits are eaten by humans and many wildlife species including black bear, deer, rabbit, and many songbirds.

---

**buttonbush**  
*Latin name:* *Cephalanthus occidentalis*  
*Family:* Rubiaceae

**Leaves:** simple, oppositely arranged, and deciduous; 4" to 7" long and 2" to 3 ½" wide; elliptically shaped, papery thin, slightly hairy underneath, and have smooth margins. The leaf base is rounded or wedged and the leaf tip is short- to long- tapering.

**Flowers:** The fragrant white flowers are borne in ball-shaped clusters, 1" to 1½" in diameter.

**Fruit:** tiny dark red-brown achenes in spherical clusters that measure ¾" in diameter.

**Habitat:** Buttonbush grows in wetlands around the borders of swamps, ponds, and rivers.

**Use:** sometimes planted as an ornamental; ducks and songbirds enjoy the nutlets of the round clusters of maroon-colored fruit.
toothache tree
Latin name: *Zanthoxylum clava-herculis*
Family: Rutaceae

**Leaves:** compound, alternate, deciduous, 5” to 9” long with 7 to 19 leaflets (each 1 to 2.5” long); leaflets somewhat leathery, ovate, tapering, rounded serrations; lustrous, bright green above, paler and somewhat hairy below.

**Twigs:** stout, hairy at first, becoming smooth in second season.

**Flowers:** early spring, terminal clusters, light green.

**Fruit:** oval, brown, wrinkled capsule.

**Habitat:** sandy soils, riverbanks.

**Use:** contains analgesics – was used to relieve pains associated with rheumatism and toothache.

beautyberry
Latin name: *Callicarpa americana*
Family: Verbenaceae

**Leaves:** simple, opposite, deciduous, and ovate with toothed margins and light brown hair on upper and lower leaf surfaces.

**Twigs:** twigs and buds are covered with dense brown-white hair.

**Bark:** brown-gray and smooth with warts.

**Flowers:** in sessile clusters (attached directly to twigs at leaf bases)

**Fruit:** beautiful purple drupe, in clusters.

**Habitat:** an understory shrub found on a variety of sites in the southern U.S.

**Use:** butterflies like the flowers and many animals eat the berries.
Vines

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greenbriar, catbriar
Latin name: *Smilax* spp.
Family: Smilacaceae

**Leaves:** simple, alternate, deciduous or evergreen, variably shaped depending on species, often 3 main veins with netted interveins.

**Stems:** vine, variable, some with thorns.

**Flowers:** small trumpet shaped flowers in small clusters, greenish to yellowish, dioecious.

**Fruit:** berry, green turning red to blue or black, containing 1-3 seeds.

**Habitat:** wide range of sites.

**Use:** important wildlife plants. Fruit eaten by grouse, turkey, quail, and at least 40 species of songbirds. Foliage is preferred by deer, rabbits and grouse.

---

grape
Latin name: *vitis* spp.
Family: Vitaceae

**Leaves:** simple, alternate, deciduous or evergreen, variably shaped depending on species, often 3 main veins with netted interveins.

**Stems:** vine, variable, some with thorns.

**Flowers:** small trumpet shaped flowers in small clusters, greenish to yellowish, dioecious.

**Fruit:** berry, green turning red to blue or black, containing 1-3 seeds.

**Habitat:** wide range of sites.

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## Grasses

**Family Poaceae**

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bluestems (or broomstraw or beardgrass)
Latin name: *Andropogon* spp.

**Leaves:** greenish-yellow or blue-gray, long and linear. Dried straw-colored plants remain upright until following spring.

**Flowers:** in branched, stemmed spikes; long and hairy.

**Fruit:** purplish-yellow grain (seed), seed base has fine white bristles for wind dispersal.

**Habitat:** grows across the central and eastern US in new forest plantations, open forests, openings, along forest margins and right-of-ways.

**Use:** seeds eaten by quail, songbirds; clumps of broomsedge are excellent breeding sites for quail.

wiregrass (or pineland threeawn)
Latin name: *Aristida beyrichiana*

**Leaves:** long, thin, wiry, or needle-like with tufts of fine, white hair or fuzz around the leaf base. Margins are rolled inward.

**Flowers:** tiny and close to the flower stalk with 3 distinct hair-like awns protruding from each flower.

**Fruit:** tiny, yellowish grain (seed).

**Habitat:** grows prolifically in flatwoods and dry sandhills. It is a common understory cover in longleaf pine forests and on newly burned sites.

**Use:** a favorite food of gopher tortoises and quail and provides valuable cover for many birds, reptiles, and small mammals. The young plants may also be used as forage by livestock. Wiregrass is also an important fuel plant in the longleaf pine ecosystem.
Toothachegrass  
**Latin name:** *Ctenium aromaticum*

**Life Span:** Perennial  
**Origin:** Native  
**Season:** Warm-season  
**Growth Form:** Bunchgrass

**Inflorescence Characteristics:**  
type:.................. straight or arched spike  
spikelets:............. sessile spikelets borne on  
one side of the rachis produce a comb like appearance, prominent glands on each side of the mid nerve of the second glume

**Vegetative Characteristics:**  
culm:.................. 3-5 feet tall  
sheath:.................basal, shorter than internodes, and old sheaths are fibrillose at the base  
blad:...................1/4-1/2 inch long wide, 6-10 inches long, pale green in color below and green to nearly white on the upper surface  
ligu:e:..................membranous, 1/16 inch long

**Site Adaptations:**  
[Slough](#)  
[North](#) and [South Florida Flatwoods](#)  
[Cabbage Palm Flatwoods](#)

**Growth and Development:**  
Rarely is toothachegrass a dominate species in a range site, but management practices (controlled grazing, periodic burns) which benefit associated grasses (i.e. lopsided indiagrass, creeping bluestem, etc.) will enhance growth and development of toothachegrass.

**Forage Value and Uses:**  
This decreaser plant is preferred by grazing livestock during the spring and summer.

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*Adapted from "Florida Range Grasses Impacting Grazing Management"  
by J. Jeffrey Mullahey and George W. Tanner*
lovegrasses
Latin name: *Eragrostis* spp.

**Leaves**: basal and alternate on lower stem, stiff, flat or sometimes rolled inward, slightly ribbed.

**Flowers**: this grass distinguished by densely and finely branched panicles with many flattened spikelets in tight clusters.

**Fruit**: reddish-brown grain.

**Habitat**: grows scattered in open forests, openings, plantations, old fields, right-of-ways.

**Use**: seeds eaten by gamebirds and some songbirds.

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Muhly grass
Latin name: *Muhlenbergia* spp.

**Leaves**: stem leaves only, alternate, flat or rolled, spreading, whitish veins, rough surfaces.

**Flowers**: slender panicles and spike-like, green or purplish.

**Fruit**: reddish-brown seed, released with husks.

**Habitat**: grows in small colonies in open forests, edges, right-of-ways, stream banks, wet to moist sites.

**Use**: nimblewill is moderately used by deer, some songbirds eat seeds.
panicgrass
Latin name: *Panicum* spp.

**Leaves:** upright, in tufts, usually with hairy margins.

**Flowers:** in ascending triangular branches; spikelets light green with faint purplish tinge.

**Fruit:** small dark purple grain (seed).

**Habitat:** grows scattered in new forest plantations, open forests, openings, along forest margins and right-of-ways on a variety of soils.

**Use:** important food for ground-feeding songbirds, small mammals and game birds.

>witchgrasses (low panicum)
* Dichanthelium spp. 

>![Image](image-url)
Indiangrass
Latin name: *Sorghastrum* spp.

**Leaves**: basal leaves have long, narrow flat blades.

**Flowers**: spikelets spindle-shaped, narrow and hairy on one side, brownish or tan, emerging in summer.

**Fruit**: reddish, flat grain released within hairy husks.

**Habitat**: scattered in forest plantations and open forests, more common in forest margins or right-of-ways. Can be abundant in open, burned forests

**Use**: seeds consumed by songbirds.

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piney woods dropseed
Latin name: *Sporobolus junceus*

**Leaves**: long, thin, hairless (distinguish from wiregrass); margins rolled inward; pine needle appearance.

**Flowers**: spreading or ascending spikelets, brown to purple; husks green to purple to bronze.

**Fruit**: tiny, yellow-brown grain (seed).

**Habitat**: grows in sparse cover forming dense clumps in flatwoods and dry sandhills. It is a common understory cover in longleaf pine forests and on newly burned sites.

**Use**: seeds are readily consumed by birds when available; also an important fuel plant in the longleaf pine ecosystem.
Common Name: Eastern gamagrass
Species: *Tripsacum dactyloides*
Life Span: Perennials
Origin: Native
Season: Warm-season
Growth Form: Rhizomatous

**Inflorescence Characteristics:**
type:..................... racemes, usually 2 or 3, and 1/4-3/8 inch long
spikelets:............. 1 to 3 terminal spikelets; 6-10 inches long, unisexual

**Vegetative Characteristics:**
culm:.................... 5-9 feet tall, glabrous
sheath:................. flattened, shorter than internodes
blade:................... flat, 1-2 feet long and 3/8-3/4 inch wide, pronounced midrib, and scabrous margins
rhizomes:............... short, thick, and knotty

**Site Adaptations:**
Wetland Hardwood Hammocks
Flatwoods Sites (will not tolerate long periods of standing water)

**Growth and Development:**
Major forage production period occurs from early spring through summer. Seed production is from July until September but few seeds are viable. Susceptible to frost though some green plant material is available during the winter.

**Forage Value and Uses:**
Highly palatable forage to livestock. Controlled grazing utilizing only 50% of standing forage along with deferment periods (90 days) will optimize plant vigor, persistence, and utilization of eastern gamagrass.

*Adapted from "Florida Range Grasses Impacting Grazing Management" by J. Jeffrey Mullahey and George W. Tanner*
Glossary
Glossary of Terms

achene: a dry, one-celled, one-seeded fruit, the product of a simple pistol.

alternate: when a single leaf occurs at a node

apex: the portion of the leaf furthest from the petiole

arborescent: having the size and form of a tree

base: portion of a leaf nearest the petiole

berry: a fleshy, several-seeded fruit with fleshy inner and outer walls

bipinnately compound: when the leaflets of a compound leaf are compounded or branched a second time

blade: expanded portion of a leaf.

buds: contain the growing points of stems

capsule: a dry fruit which is the product of a compound pistol

chambered pith: empty chambers separated by thin or thick partitions.

compound leaves: leaves with 2 or more blades

cone: a fruit composed of two or more woody, leathery, papery, or fleshy seed-bearing scales inserted on a central stalk

deciduous: losing leaves once a year.

diaphragmed pith: when denser, disc-like tissues bridge an otherwise homogeneous pith at regular intervals

dioecious: each sex of unisexual flowers occur on separate individuals

drupe: a fleshy, usually one-seeded fruit, with a sometimes hard inner wall

even-pinnately compound: compound leaves with an even number of leaflets

fascicle: a cluster or bundle of needle-like leaves

fluted: regularly marked by alternating ridges and groove-like depressions

follicle: a dry fruit which is the product of a simple pistol (the fruit of the southern magnolia is an example)

fruit: the seed-bearing organ of a plant
**genus**: the first or generic part of the scientific name of a plant

**glabrous**: smooth

**homogeneous pith**: a pith of uniform texture

**inflorescence**: a characteristic flower cluster

**leaflet**: blades of a compound leaf

**legume**: a dry fruit which is the product of a simple pistol (a bean is an example)

**lenticel**: small dots, slits, or diamond-like or wart-like patches with aeration purposes

**margin**: the outside edge of a leaf blade

**monoecious**: when both sexes of unisexual flowers occur on the same individual

**node**: the point of leaf attachment on the twig

**nut**: a dry fruit, usually one-seeded with a bony, leathery, or papery wall

**odd-pinnately compound**: compound leaves with an odd number of leaflets

**opposite**: when a pair of leaves occur at a node, one on either side of the twig

**palmately compound**: compound leaves characterized by several leaflets radiating from a common point at the end of a rachis

**perfect flower**: both male and female sex organs are in the same flower

**persistent**: evergreen, does not lose leaves once a year.

**petiole**: supporting stalk of a leaf

**pinnately compound**: when the leaflets are dispersed laterally along the rachis of a compound leaf

**pinnule**: the blades of the second branching of a bipinnately compound leaf

**pith**: a mass of soft tissue in the central portion of a twig

**polygamous**: both perfect and unisexual flowers occur on the same individual

**pome**: a fleshy, succulent fruit, encompassing numerous seeds

**pubescent**: having small, fine hairs

**rachis**: the stalk to which the blades of a compound leaf are attached
samara: a winged achene

sessile leaves: leaves lacking a petiole, attached to the twig at the base of the leaf

simple leaves: leaves having a single blade attached to the twig by a petiole

species: the second or specific part of the scientific name of a plant

spongy pith: when the pith is exceedingly porous

stipules: small scalelike or leafy structures attached to the twig at either side of a petiole or rachis

trifoliate: compound leaves with three leaflets

tripinnately compound: when pinnules of a compound leaf are compounded or further branched

unisexual flower: if either sex organ is not functional or is not present

whorled: when three or more leaves appear at a common node