Weeds of South Florida

An Identification Guide



By the Palm Beach State College Horticultural Taxonomy Class, revised Sept. 2013 George Rogers, Ph.D.

SOUTH FLORIDA WEED IDENTIFICATION GUIDE

Instructions:

- 1. Select a major category A-K on this page.
- 2. Then proceed to the sections A-K on following pages matching by your category choice.
- 3. Upon arriving at the category you selected, read all the options in that category, seeking the best matches.
- 4. Use the index to find pictures and text on the species you matched.
- 5. Some weeds appear under multiple categories.

Major Categories:

- Does the weed have peltate leaves? (The leaf-stalk attached at the center of the leaf blade, like the stem on a mushroom). The weed is probably a "Dollarweed" (species of Hydrocotyle, especially Hydrocotyle umbellata)
- Is the weed a grass, sedge, or grasslike? Go to "A" below
- Is the weed a climbing vine? Go to "B" below
- Does the weed have a strong odor when crushed? Go to "C" below
- Does the weed have fuzzy leaves and stems? Go to "D" below
- Does the weed have opposite (paired) simple (not compound) leaves? Go to "E" below
- Does the weed have leaves with 3 leaflets? Go to "F" below
- Does the weed have compound leaves with more than 3 leaflets? Go to "G" below
- Does the weed have alternate (attached singly, not in pairs) simple (not compound) leaves with toothed edges? Go to "H" below
- Does the weed have alternate simple leaves with smooth edges? Go to "I" below
- Does the weed live entirely or mostly in water, such as a canal or pond? Go to "J" below
- Does the weed have milky sap when broken? Go to "K" below.

A. Grass (A1) Weeds and Sedge (A2) Weeds

Hundreds of grass species occur locally. This guide helps with the most common and conspicuous weeds. For more choices visit my web site www.floridagrasses.org.

A1. Grass Weeds

(Stems round and often hollow; leaves usually attached in 2 rows)

1. Grass > 6' tall

Inflorescence a panicle with branches in whorls...Guinea Grass (*Urochloa maxima*)

Inflorescence resembles a bristly hotdog; grass is 8'-12' tall...Elephant Grass (Pennisetum purpureum)

Inflorescence resembles fuzzy fingers or a broom, usually in a wet ditch...Phragmites (*Phragmites australis*)

1. Grass 1'-6' tall

Flower spikes delicate paired bunny ears and extremely feathery-fuzzy in various arrangements. These grasses often 3'-5' tall...Bluestem Grasses (species of *Andropogon*, mostly *A. glomeratus* and *A. virginicus*, see www.floridagrasses.org)

Inflorescence a tall (2'-4') wand with a narrow flame-shaped inflorescence on it; leaves thin and tough...Smutgrass (Sporobolus indicus)

Inflorescence a panicle (the branches branched) and the spikelets sparse:

- Panicle branches in whorls...Guinea Grass (*Urochloa maxima*)
- Panicle thin and sparse, the branches not whorled; leaves often in two clear rows; species often but not necessarily in water or wet mud...Torpedo Grass (*Panicum repens*) (There are many species of *Panicum* in Florida.)

Inflorescence with fingerlike branches usually all of equal length radiating from a single point (except in Crabgrass where the lengths and attachments points are messy):

Inflorescence "fingers" thin and wirelike, often > 3" long, in "sloppy" arrangement: different attachment points, different lengths, different angles, the individual spikelets with a rim of cilia... Southern Crabgrass (*Digitaria ciliaris*)

Inflorescence resembling thick (1/4" diameter) fingers radiating like spokes...Crowsfoot Grass (*Dactyloctenium aegyptium*)

Inflorescence thin (< 1/4" diameter) fingers radiating like spokes, 1'-2.5' tall... Fingergrass (*Eustachys petraea*)

Inflorescence with a cluster of fingers on top, and with one isolated finger below...Goosegrass (Eleusine indica)

Inflorescence comprised of conspicuously silky-hairy spikes on a tall wand; this grass usually > 3' tall...Vasey Grass (*Paspalum urvillei*)

Inflorescence resembling a fuzzy pencil...Gophertail Lovegrass (*Eragrostis ciliaris*)

Note: Feather Lovegrass (*E. amabilis*) is similar, 1' tall, but the inflorescence is open and spreading.

Grass with painful burr fruit...Sandspurs (*Cenchrus* species, usually *C. spinifex*)

3. Grasses Sprawling or creeping, usually < 6" tall

Small (6" tall) thin-leaved rhizomatous grass with the inflorescence spikes radiating as an umbel of fingers...Bermuda Grass (*Cynodon dactylon*) (occasionally becomes very tall)

Grass with painful burr fruit...Sandspur (Cenchrus species, usually C. spinifex)

Inflorescence branches sticking straight out at right angles like "signal arms"...Small Leaf Alexander Grass, Signalgrass (*Urochloa distachya*, = *U. subquadripara*)

Inflorescence branches forming a "Y" on the top of the plant; the spikelets in the inflorescences look like flat clams; leaves often broad and often reddish, sprawling in disturbed sandy places...Thin Paspalum (*Paspalum setaceum*) Note: Turf Bahia Grass is *Paspalum notatum*.

Plants hugging the ground, forming a mat in turf...Blanket Crabgrass (*Digitaria serotina*) Note: Indian Crabgrass, *D. longiflora*, is similar but has longer second glumes (> 1 mm).

A2. Sedge Weeds

Stems often triangular and solid; leaves usually attached all around the stem; leaves often restricted to the top and bottom of the plant. Note: There are hundreds of sedges in South Florida. Selected important weeds are listed here. For more depth visit www.floridagrasses.org.

- 1. Large showy sedge (2'-5') on wet bank of pond or canal; inflorescence branches resemble bottlebrush...Fragrant Flatsedge (*Cyperus odoratus*)
- 2. Main inflorescence branches flat:
 - Spikes reddish, plant may have tubers...Purple Sedge (Cyperus rotundus)
 - Spikes yellowish; mature plants usually with tubers; styles 3...Yellow Flatsedge (*Cyperus* esculentus)
 - Spikes greenish to yellowish; tubers absent; styles 2...Manyspike Flatsedge (Cyperus polystachyos)
 - Spikes greenish, with dark spotted scales (dark seed showing through); tubers absent; styles 3;
 often in moist spots...Annual Sedge (Cyperus compressus)
 - Stem rough like sandpaper...Suriname Sedge (Cyperus surinamensis)
- 3. Main inflorescence branches (spikelet clusters) globe-shaped or cylinder shaped, not flat:
 - More than one spike per plant; spikes more or less globe-shaped with <50 rounded spikelets...
 Baldwin's Flatsedge (Cyperus croceus aka C. globosus)
 - More than one spike per plant; spikes more or less cylindric with 40-120 flat spikelets...
 Pinebarren Flatsedge (Cyperus retrorsus)
 - One white flower cluster/plant...Fragrant Kyllinga (Kyllinga odorata)
 - One green flower cluster per plant, the cluster not taller than broad; creeping turf weed...Shortleaf Kyllinga (Kyllinga brevifolia). Low Kyllinga (Kyllinga pumila) is similar but has no rhizome.

B. Climbing Vine Weeds

B1. Leaves Compound

Leaves pinnately compound and alternate; flowers pealike, violet; seeds red/black...Rosary Pea (*Abrus precatorius*). Note: Trumpet Creeper (*Campsis radicans*) has opposite compound leaves, stems covered with roots, and large orange tube-shaped flowers.

Leaves with 3 leaflets; flowers pealike and yellow...Cowpea (*Vigna luteola*). Note: Poison Ivy (*Toxicodendron radicans*) has 3 leaflets; its stems are covered with roots. Milkpeas (*Galactia*) often have three leaflets too, the flowers pinkish.

Leaves palmately compound with > 3 leaflets; stems covered with roots...Virginia Creeper (*Parthenocissus virginiana*)

B2. Leaves Simple (Not Compound)

Leaves Opposite (often heart-shaped or arrow-head shaped): Mikania species

Leaves Alternate:

Leaves not lobed (but may have teeth):

Species of Morning Glories (*Ipomoea*) have arrow-head-shaped leaves; their flowers are shaped like funnels. There are several species in South Florida.

Leaves with lobes:

Leaves 3-lobed and with notched base; with tendrils; flowers yellow; fruit a smooth cucumber green on the inside...Creeping-Cucumber (*Melothria pendula*)

Leaves usually 5- or 7-lobed; with tendrils; flowers yellow; fruit a bumpy "cucumber" orange on the inside with red seeds...Balsam-Pear (*Momordica charantia*) Note: Noyau Vine (*Merremia dissecta*) has similar leaves but no tendrils, a dry capsular fruit, and white funnel-shaped flowers with a red eye.

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C. Weeds With Odors When Crushed

Low weed 4"-8" tall, with four tiny white petals; fruit long like a mini-green bean...Pennsylvania Bittercress (*Cardamine pensylvanica*)

Weed to 2' tall; leaves coarsely serrate or lobed; flowers white with 4 petals; fruit resembling a tiny coin... Peppergrass (*Lepidium virginicum*)

Extremely fuzzy weed with yellow "dandelion" flower...Camphorweed (Heterotheca subaxillaris)

Tall weed to 6'; leaf segments threadlike (resembles Dill)...Dog Fennel (Eupatorium capillifolium)

Weed to 2'-3' tall with strong "chemical" odor; flowers green, tightly congested...Mexican Tea (Chenopodium ambrosioides)

Weed mat-forming with deeply pinnately lobed leaves; fruit resembles "Mickey Mouse" ears...Lesser Swinecress (*Lepidium didymium*)

Very tall weed, potentially 6'-12' or more tangled with other plants; leaves opposite, dentate; flower heads fuzzy, white to pinkish...Jack-in-the-Bush (*Chromolaena odorata*)

D. Fuzzy Weeds

Yellow "dandelion" flower; foliage fragrant when crushed...Camphorweed (Heterotheca subaxillaris)

Very tall weed, potentially 6'-12' or more tangled with other plants; leaves opposite, dentate; flower heads fuzzy, white to pinkish...Jack-in-the-Bush (*Chromolaena odorata*)

Weed 2'-6' tall; leaves heart-shaped and velvety; flowers round and yellow...Heartleaf Sida (Sida cordifolia)

Weed 2'-6' tall; leaves linear or nearly so; plants hirsute to hispid; flowers in small white heads (Asteraceae)...Canada Horseweed (*Conyza canadensis*)

Leaves pinnately compound on plant to 3' tall; flowers coral; pods resemble fuzzy hotdogs...Hairy Indigo (Indigofera hirsuta)

Sprawling weeds with opposite entire-margined leaves and fringed stipule. Flowers usually pinkish. Common in patches in low-maintenance turf...Mexican-Clover (*Richardia grandiflora*, consider also other species of *Richardia*...see "opposite leaves" at "E" below)

Erect or floppy weed with opposite toothed leaves; flower heads with creamy "petals" (ray flowers), these with 3 teeth...Tridax (*Tridax procumbens*)

Flower heads with 5 "petals" (ray flowers" having three terminal teeth)...Shaggy Soldiers, Gallant Soldiers (*Galinsoga quadriradiata*)

Sprawling weed with opposite, toothy, wrinkled leaves; flower heads yellow...Wedelia (Sphagneticola trilobata)

Erect weed to 2' tall having soft woolly hairs, often so much that the young stem looks "snowy"; leaf blades widest toward the tip and tapering gradually toward the base (obspatulate); flower heads tightly congested, greenish or chaffy...Cudweed (*Gamochaeta purpurea*, or possibly other *Gamochaeta* or *Pseudognaphalium* species)

E. Weeds With Opposite Leaves

(If the plant is a vine, see Vines)

Plant to 10' or taller, intertwined with other plants, leaves conspicuously hairy, fragrant when crushed... Jack in the Bush (*Chromolaena odorata*)

Flower heads fuzzy-blue...Ageratum (Ageratum houstonianum). Consider also Clinopodium.

Leaves narrowly elliptic with long-ciliate margins, gland-dotted; flower heads yellow; entire plant 2" tall... Cinchweeds (*Pectis prostrata* and other *Pectis* species)

Flower heads fuzzy-white, resembling tiny shaving brushes...Hammock Snakeroot (*Ageratina jucunda*; consider also species of *Eupatorium*)

Plants with milky sap...Chamaesyce (See Sand Mat for distinctions among locally abundant Chamaesyce species)

Plant erect with green leafy "pyramid" on top, resembling a green "shrimp plant"...Blechum (*Blechum pyramidatum*)

Leaves linear; plants green to rust-colored, standing 1"-3" tall; flowers white, tiny...Rustweed (*Polypremum procumbens*)

Plant sprawling; leaves narrowly elliptic with stipule between them; flowers white, on long wirelike stalks, with 4 petals; fruits with 2 conspicuous lobes...Old World Diamond Flower (*Oldenlandia corymbosa*)

Leaves < ½" long, very crowded, flowers inconspicuous...Artillery Plant (*Pilea microphylla*)

Erect herb or subshrub; leaves narrowly elliptic to near-linear, clustered at nodes, with stipules; flowers tiny, white, clustered in more or less globe-shaped heads...Buttonweed (*Spermacoce verticillata*). The native *Spermacoce assurgens* is smaller, has the flower heads less globe-shaped, and the leaves are not clustered at the nodes.

The opposite leaves fuzzy:

- Leaves entire-margined with fringed stipule between them...Richardia (see Mexican-Clover for distinctions among the three locally common Richardia species)
- Leaves entire-margined, with no stipule; flowers white, with the 5 petals split to resemble 10 petals at a glance...Chickweed (Stellaria media)
- Leaves coarsely serrate; flower heads with creamy ray flowers having 3 teeth; fruits are "parachutes"...Tridax (Tridax procumbens)
- Flower heads with 5 "petals" (ray flowers) having 3 terminal teeth...Shaggy Soldiers, Gallant Soldiers (Galinsoga quadriradiata)
- Leaves deeply wrinkled, coarsely serrate-lobed; flowers yellow heads (Asteraceae)...Wedelia (Sphagneticola trilobata)

The opposite leaves hairless or nearly so:

- Plant sprawling; leaves serrate, flower heads white and purplish, congested on a long stalk resembling a match...Match Plant (*Lippia nodosa*)
- Leaves serrate; flowers tube-shaped yellow...Baby Jump-Up (Mecardonia procumbens)
- Leaves serrate; flower heads (Asteraceae) yellow...Horseherb (*Calyptocarpus vialis*) (See *Calyptocarpus* for similar *Synedrella*.)
- Leaves entire-margined, sessile or nearly so, as broad as long; fruit sticks like velcro...Drymary (*Drymaria cordata*)
- Leaves entire-margined, ovate, with deeply indented veins; flower stalks long and spidery, with small purplish flowers and elongate fruits broadened toward the tips...Red Spiderling (*Boerhavia diffusa*)
- Leaves entire-margined; plants sprawling; stipules absent (vs. Button Weed); flowers congested in more or less globe-shaped heads on long stalks...Joyweed (*Alternanthera flavescens*)
- Leaves entire-margined, the blades often about as broad as long; flowers tiny, green, at the nodes...Florida Pellitory (leaves opposite or alternate) (*Parietaria floridana*)

F. Weeds With Palmately Lobed or Trifoliate Leaves

(Having 3 Lobes or 3 Leaflets)

Leaves palmately lobed or fringed, but not divided into 3 leaflets...Wild Geranium (Geranium carolinianum)

Leaves with 3 distinct leaflets:

Climbing vine with roots along the stem; flowers white...Poison Ivy (*Toxicodendron radicans*) (Similar Virginia Creeper, *Parthenocissus quinquefolia*, has 5 or more leaflets per leaf.)

Aggressive, large climbing vine with leaflets > 3" long, not root-bearing along the stem; flowers purple... Kudzu (*Puereria montana*)

Plants creeping or sprawling; leaflets serrate but with no white chevron (vs. *Trifolium*); flowers tiny and congested into yellow hoplike heads...Black Medic (*Medicago lupulina* or *M. polymorpha*; *M. sativa*, Alfalfa, has purplish flowers.)

Plants small weeds under 1' tall; leaflets with a deeply notched tip; flowers round and yellow...Sourgrass (Oxalis corniculata)

Plants small weeds < 1' tall; leaflets with a white "chevron" mark, serrate...Dutch White Clover (*Trifolium album*)

Creeping weeds < 1' tall; leaflets with no white mark, and entire-margined, sometimes with reddish margins; middle leaflet stalked; flowers pink, pealike...Threeflower Beggarweed (*Desmodium triflorum*)

Plants prostrate or erect; leaflets with a silvery-white smudge in the center, entire-margined; central leaflet stalked; flowers purple; fruit a sticktight...Creeping Beggarweed (*Desmodium incanum*)

Plants may be sprawling but usually erect and up to 3' or more tall; leaflets entire-margined, with no white mark, the central leaflet on a long stalk; flowers purple and pealike; sticktight pods twisted...Dixie Beggarweed (*Desmodium tortuosum*) (and see the following species)

Plants to 3' tall but usually smaller; trifoliate leaves may be mistaken for the preceding species but the central leaflet sessile or nearly so, the stipules inconspicuous and < 0.5 mm long; fruit a long cylindric pod (vs. segmented sticktights); flowers purplish, strongly bilaterally symmetrical...Fringed Spiderflower (Cleome rutidosperma)

Plants erect to 4' tall, the fruits elongate, sausage-shaped inflated pods that rattle when ripe. Flowers pealike: yellow or yellow marked with red. Central leaflet not stalked...Rattleboxes (*Crotalaria*). Lanceleaf Rattlebox has 3 narrow lanceolate leaflets. Smooth Rattlebox has 3 broad elliptic leaflets. Showy Rattlebox has simple leaves.

Plants sprawling to 3' tall; flowers pealike, yellow; leaflets narrowly elliptic with acuminate apex...Cheesy Toes (*Stylosanthes hamata*)

G. Weeds With Pinnately Compound (or Deeply Pinnately Lobed) Leaves

Plant a vine; flowers violet; seeds red and black...Rosary Pea (Abrus precatorius)

Plant creeping; compound leaves opposite; flowers bright yellow; fruit a spiny burr...Puncture Vine (*Tribulus cistoides*)

Plant to 3' tall, hairless; the compound leaves opposite, very irregular, the edges serrate, the tips of the lobes sharply pointed; flower heads (Asteraceae) white with yellow centers; fruits are sticktights...Spanish Needles, Beggarticks (*Bidens alba*)

Plants erect to 3' tall, hairy; the compound leaves having entire-margined rounded leaflets; flowers pinkish-rosy, pealike; fruits resemble tiny bristly hotdogs...Hairy Indigo (*Indigofera hirsuta*)

Plants creeping; pinnately compound leaves with 5-7 obovate leaflets; flowers pealike, salmon-colored... Creeping Indigo (*Indigofera spicata*)

Plants erect, to 3' tall, the leaves opposite, fernlike, deeply pinnately lobed (to essentially compound), the leaflets lobed; leaf parts with rounded tips; flowers greenish and small in dense clusters...Ragweed (Ambrosia artemisiifolia)

Plants to 3' tall with mustard odor when crushed; leaves irregularly pinnately lobed (but not compound); flowers yellow with 4 petals...Leaf Mustard (*Brassica juncea*)

Sprawling; strong odor when crushed; leaves pinnately compound (or very deeply lobed), the leaflets irregularly lobed and toothed; fruits with pair of "Mickey Mouse ears"...Lesser Swinecress (*Lepidium didymum*)

H. Weeds Having Simple, Alternate (or Rosette), Toothed Leaves

Flowers pink with long inferior ovaries...Beeblossom (Gaura angustifolia)

Plant with milky sap... see "weeds with milky sap" below

Inflorescence a thick "foxtail"...Acalypha species

Leaves painfully spiny...Purple Thistle (Cirsium horridulum)

Serrate (teeth angled toward leaf tip---compare with dentate below):

Some or all of the leaves compound, see...Beggarticks (Bidens alba)

Crushed leaves emit a strong "chemical" odor...Mexican Tea (Chenopodium ambrosioides; consider also Peppergrass, Lepidium virginicum—see below)

Plant with tiny white 4-petalled flowers and round flat fruits 1/8" in diameter; leaves smelly when crushed...Peppergrass (*Lepidium virginicum*)

Leaves all in a basal cluster, with widely spaced teeth; flowers green in a vertical green wand...Plantain (*Plantago virginica*)

Basal rosette with irregularly toothed leaves, the plant rising to 4' tall with the stem leaves narrow and not toothed; plant parts with conspicuous long stiff hairs...Canadian Horseweed (*Conyza canadensis*)

Flowers lilac; leaves with long-tapered bases...Little Ironweed (Cyanthillium cinereum)

Flowers yellow:

- Flowers sessile or nearly so; leaves hairless or nearly so...Wireweed (Sida ulmifolia)
- Flowers sessile or nearly so; leaves very fuzzy...Heartleaf Sida (Sida cordifolia)
- Flowers on wire-like stems 1"-2" long...Indian Hemp (Sida rhombifolia)

Dentate (teeth point straight out) or leaf margins spiny or irregularly lobed:

Plants sprawling in moist places; leaves with notched base, the teeth shallow...Asiatic Pennywort (*Centella asiatica*)

Plants < 1' tall; leaves deeply and irregularly lobed, pungent when crushed; flowers tiny with 4 white petals; pods long like miniature green beans...Pennsylvania Bittercress (*Cardamine pensylvanica*)

Plants to 2' tall; leaf bases wrapped around stem; flower heads red or lilac...Tassel Flowers (*Emilia fosbergii* (red) and *E. sonchifolia* (lilac))

Plants to 3' tall, with mealy white powder on young growth; flowers green in congested clusters...Lambs Quarters (*Chenopodium album*)

Plants to 2' tall. Flowers yellow, resembling dandelion flower but numerous; basal leaves irregularly lobed and narrowed toward the base...Asiatic Hawksbeard (*Youngia japonica*)

Very common weed having leaves with large irregular lobes and teeth, the stems rising to 4' tall from a rosette; flower heads mostly white with a long cylindric vaselike involucre of phyllaries (green base to the flower heads)...Burnweed (*Erechtites hieraciifolius*)

Plants < 18" tall; petals yellowish, the sepals forming a husk around the flower base and around the fruit...Husk Tomato. There are several species of *Physalis* in Florida. *Physalis walteri* and *P. angustifolia* have stellate trichomes, *P. walteri* throughout, and P. *angustifolia* glabrous except on the sepals. The other species have simple trichomes. *Physalis angulata* has sharp teeth on the leaves. *Physalis pubescens* and *P. arenicola* have similar pubescent leaves with irregular lobes and blunt teeth; the former has dark spots on the flower, and the latter has flowers with no dark spots. There are additional species but not likely encountered as weeds in South Florida.

I. Weeds Having Alternate Simple Leaves With Smooth (Entire) Leaf Margins

Plants to 5' or more tall, with leaves 8" or more long, bearing small white flowers in erect or dangling racemes and dark purple berries...Pokeweed (*Phytolacca americana*)

Plant to 5' tall with bright showy yellow flowers; leaves simple...Showy Rattlebox (*Crotalaria spectabilis*) (Other rattleboxes have trifoliate leaves)

Plant seasonally a rosette, then rising to 5' tall, the rosette leaves toothed, the stem leaves linear and untoothed; plant with conspicuous stiff white hairs on all parts...Canadian Horseweed (*Conyza canadensis*)

Plants to 3' tall, thorny...Spiny Amaranth (*Amaranthus spinosus*; see also Purple Amaranth and Slim Amaranth)

Plants to 3' tall. Leaves often notched at the tip...Purple Amaranth (Amaranthus blitum)

Plants to 3' tall, not thorny, the leaves ovate with pointy tips and smoothly curved veins; flowers in elongate green cigarette-shaped clusters...Slim Amaranth (see this species under Spiny Amaranth)

Plants to 2' tall; leaves spatulate, stems and young leaves with white wool...Cudweeed (Gamochaeta purpurea)

Delicate weed to 18" tall with tiny green flowers in leaf axils; leaves alternate or opposite...Florida Pellitory (*Parietaria floridana*)

Turf weed to 6" tall; leaves with disproportionately large white stipules...Alyce Clover (*Alysicarpus vaginalis*)

Creeping turf weed with deeply notched leaf bases, the blades otherwise nearly round...Pony's Foot, Dichondra (*Dichondra caroliniensis*)

Creeping weed with rounded succulent leaves; flowers yellow; open fruits resembling a tiny nest with eggs...Purslane (*Portulaca oleracea*). *Portulaca amilis*, an introduced species, has flat leaves and purple flowers. *Portulaca pilosa* is native and likewise has purple flowers, but the leaves are round (vs. flat). *Trianthema portulacastrum* is unusual—it has broad leaves not very succulent and pale pinkish flowers.

Plants creeping with small blue 3-petalled flowers having hairy stamens...Spreading Dayflower (Commelina diffusa)

J. Aquatic Weeds

Floating freely unrooted:

Leaves extremely fuzzy, in a cabbage-like rosette with roots dangling...Water Lettuce (*Pistia statiotes*)

Leaf bases swollen into floats...Water-Hyacinth (Eichhornia crassipes)

Plant < ½" in diameter, made of one or more roundish green disks...Duckweed (*Lemna* sp.) (Consider also Mosquitofern, *Azolla ficuloides*, or possibly *A. pinnata*. Azollas are tiny floating ferns with overlapping scales resembling shingles.)

Weed floating freely; leaves coin-sized, fuzzy, paired, with dangling roots...Water-Spangles (Salvinia minima, also possible, S. molesta)

Rooted, either submerged or rising to the surface:

Leaves dissected into linear segments...Coontail (Ceratophyllum demersum)

Leaves pinnate, resembling fine fish skeletons...Parrotfeather (*Myriophyllum pinnatum*, or other *Myriophyllum* species)

Leaves pinnate, similar to *Myriophyllum* but with fewer leaflets (< 8 vs. > 10)...Mermaid (*Proserpinaca pectinata*)

Leaves opposite; stem hollow and floating; flowers in a white congested head...Alligator Weed (*Alternanthera philoxeroides*)

Leaves opposite; stem square; flowers 2-lipped...Indian Swampweed (Hygrophila polysperma)

Leaves whorled, not serrate, the midrib without prickles...Brazilian Waterweed (Egeria densa)

Leaves whorled; serrate; midvein with prickles beneath...Hydrilla (Hydrilla verticillata)

Sedge sometimes floating mats; flowers in globose heads; achenes white...Cuban Bulrush (Oxycaryum cubense)

K. Weeds With Milky Sap

Leaves opposite...Sand Mats (See Chamaesyce under "opposite leaves" above)

Leaves just under the flowers splashed with red...Wild Poinsettia (Poinsettia cyathophora)

Plants to 3' tall; leaves to multiple inches long, irregularly lobed; flowers with 3-lobed ovaries...Fiddler's Spurge (*Poinsettia heterophylla*) (Similar to Wild Poinsettia but without the red markings)

Plant to 2' tall; flowers white with 3-lobed ovary...Grassleaf Euphorbia (*Euphorbia graminea*) (Resembles Fiddler's Spurge but thinner and with flowers white as opposed to green and pink)

Flower head single, yellow...Dandelion (*Taraxacum officinale*)

Plant to 4' tall; leaves with main vein purple, leaf base curled where it contacts the stem; flower heads yellow...Sowthistle (Sonchus oleraceus, or S. asper)



ALLIGATOR WEED

Alternanthera philoxeroides al-ter-NAN-thur-ah fill-ox-er-OID-ees Amaranthaceae

Native to: South America

Recognition: Sprawling herb usually in water, or in row crops and gardens; stem often pinkish; leaves opposite, elliptic to oblanceolate; fruits tiny, one-seeded. *Gomphrena* has two bracts beneath the flower head. Joy-Weed (*Alternanthera flavescens*) grows in dry habitats, has the tepals pubescent (vs. glabrous), and leaves usually lanceolate (vs. elliptic or widest above the middle).

Other: Alligator Flea Beetles have been released as biological control for this weed.

Contributed by Sarah Lopinot



Alyce Clover One-Leaf Clover

Alysicarpus vaginalis al-liss-ee-KAR-pus vaj-in-AlL-iss Fabaceae

Native to: Old World Tropics

Florida abundance and distribution: Naturalized in Florida, Southern United States and the West Indies

Recognition: Stems erect or spreading, up to 1 cm long, with leaves singular, simple and alternate, ovate to lanceolate, up to 2.5 cm long. Plants with large conspicuous stipules. Flowers in racemes with 6-12 flowers; corolla reddish purple, purplish blue or yellow; pods compressed with 4-7 segments

Other: Grown as a forage plant.

Contributed by Andrea Schechter



ARTILLERY-PLANT

Pilea microphylla PILE-ee-ah mike-crow-FILL-ah Urticaceae

Native to: Florida native

Florida abundance and distribution: Scattered throughout

Recognition: Low to the ground. Leaves crowded, more or less elliptic, small, < 1" long, in a single plane on light green stems. Flowers green and small.

Contributed by Nathan Hendry



ASIATIC HAWKSBEARD

Youngia japonica YOUNG-ee-ah jaw-PON-ah-cah Asteraceae

Native to: Asia, naturalized worldwide in warm climates, including the SEUS

Florida abundance and distribution: Throughout

Recognition: Rosette-forming and taprooted. Leaves pinnately sharply lobed with a large terminal lobe, the lateral lobes becoming smaller toward the base. Flowering stalks rising above the leaves, having up to 30 flower heads, these yellow and resembling dandelion flowers.

Potentially confused species: Dandelion has only one flower head/stalk.

Means of dispersal: Seedlike fruits on feathery "parachutes."

Contributed by Janel Schaffer



Asiatic Pennywort

Centella asiatica (Hydrocotyle asiatica) sen-TELL-ah ays-ee-AT-ah-cah Apiaceae (or Araliaceae)

Native to: Warm Asia

Florida abundance and distribution: Ditches and other low moist places throughout Florida.

Recognition: Small, low-growing, herbaceous perennial having shovel-shaped leaves sometimes with red edges. Flowers small, white to pink.

Means of dispersal: Rhizomes and seeds

Other: In India and in Asia this species has served as a medicinal herb for thousands of years. Today *Centella asiatica* is used in a wide variety of pharmaceutical products for skin care, kidney and liver problems, wounds, and the immune system. *Centella* leaves are used fresh in salads and dried in teas.

Contributed by William Mullarkey



Baldwin's Flatsedge, Globe Sedge

Cyperus croceus sigh-PEAR-us CROW-see-us Cyperaceae

Native to: Florida native

Florida abundance and distribution: Throughout, one of the most common weedy sedges

Recognition: Perennial 1'-3' tall, with nearly globose spikelet clusters usually on long bare wands.

Easily confused species: This species resembles *C. retrorsus* and has in some classifications been treated as a synonym. The latter has more-cylindric spikelet clusters, and 40-120 (vs. 10-50) rounded (vs. flat) spikelets.

Internet reference: www.floridagrasses.org

Contributed by Ginelle Monico





BALSAM PEAR, CERASEE

Momordica charantia

muh-MORD-ah-cah kar-ANT-ee-ah Cucurbitaceae

Native to: Southern Asia

Florida abundance and distribution: In disturbed sites from Putnam Co. to the central and southern peninsula.

Recognition: A fast growing climber that reaches a height of 6' and bears deeply lobed and alternate leaves, yellow flowers, and orange-yellow fruit red on the inside. Flowering mostly in summer and fruiting mostly during the autumn.

Other: Balsam Pear may be helpful in the treatment of Type-2 diabetes. In the Caribbean the plant is called Cerasee (with different spelling variations) and is a traditional medicine for numerous ailments.

Contributed by Geovany Esteban



BEEBLOSSOM

Gaura angustifolia GOW-rah ann-gust-ah-FOAL-ee-ah Onagraceae

Native to: Florida native

Florida abundance and distribution: Throughout

Recognition: Narrow-leaved weed having pink flowers in spring and summer, these with long inferior ovaries. Common on disturbed roadsides and similar mowed weedy places.

Contributed by George Rogers, photo by John Bradford



BEGGAR TICKS, SPANISH NEEDLES

Bidens alba BYE-dens AL-bah Asteraceae

Native to: Native to Florida

Florida abundance and distribution: Very abundant, throughout

Recognition: Herbaceous, with opposite compound, serrate leaves. Flower heads with white ray flowers and yellow disk flowers. Seedlike fruits cling by two short sharp needles to clothing.

Easily confused species: *Tridax* has simple leaves, conspicuously 3-notched ray flowers, extensive pubescence, and parachute-type fruits (vs. sticktights). There are additional species of *Bidens* in Florida. *Bidens mitis* and *B. laevis* have yellow flower heads. *Bidens bipinnata* has double compound (vs. once-compound) leaves and fruits with 3 (vs. 2) horns.

Contributed by June Wilkinson and Carolyn Hendry



BERMUDA GRASS

Cynodon dactylon SIN-oh-dawn DACT-ah-lawn Poaceae

Native to: Africa, Asia, and beyond

Florida abundance and distribution: This escaped turf grass is naturalized throughout the warmer regions of the United States, where it was introduced in the colonial period from the Old World Tropics.

Recognition: Leaf blades gray-green, short with rough edges. Erect stems to 12" tall. (Occasionally much taller.) Stems slightly flattened, often tinged purple. Seed heads in distinctive fingerlike umbels of 2-6 spikes. Roots deep, once established difficult to remove.

Other: Aggressive, crowding out other grasses and invasive. It is fast-growing and tough, making this species popular for turf.

Internet sources: 2011 American-Lawn.com. www.floridagrasses.org

Contributed by Grace Walton





BLACK MEDIC

Medicago Iupulina med-ah-CAW-go loop-you-LINE-ah Fabaceae (Leguminosae)

Native to: Eurasia

Florida abundance and distribution: Throughout

Recognition: Summer annual or short-lived perennial in disturbed areas. Prostrate to 1' tall, with nitrogen-fixing root nodules. Stems 1'-2' long, with small hairs. Leaves trifoliate, the central leaflet on a separate petiolule, the leaflet margins serrulate. Flowers tiny, yellow, numerous in thimble-like bunches. Fruit a tiny pod that remains closed at maturity.

Potentially confused species: Other local weeds with trifoliate leaflets include Beggarweeds (*Desmodium* species), which differ by having entire leaflets and purplish flowers and non-serrate leaflets; *Oxalis*, which has deeply notched leaflets; and Dutch White Clover (*Trifolium album*) with white flowers and a white chevron on each leaflet.

Contributed by Andrea Schechter



Brazilian-Clover, Brazilian Pusley

Richardia brasiliensis reh-CHARD-ee-ah brah-zil-ee-EN-sis Rubiaceae

Native to: Tropical America, probably not including Florida

Florida abundance and distribution: Throughout

Recognition: Sprawling weed with opposite fuzzy leaves and a fringed stipule between the bases. Flowers tiny, star-shaped with (4)5(6) petals. See "Mexican-Clover" (*Richardia grandiflora*) for comparison with similar species. Brazilian-Clover has the smallest flowers of the trio, and has fruit segments with flat inner faces.

Contributed by George Rogers





BLACK NIGHTSHADE

Solanum americanum so-LAY-num ah-mer-ah-CANE-um Solanaceae

Native to: Florida native

Florida abundance and distribution: Abundant throughout

Recognition: Perennial or subshrub to about 4' tall, having irregularly shaped leaves, which may have entire or coarsely serrate margins Flowers white, star-shaped, with 5 sepals, 5 petals, 5 yellow stamens, and a solitary pistil. Fruit a black berry.

Potentially confused species: There are other species of *Solanum* in Florida (see also Tropical Soda Apple in the present guide). The present species stands apart by not being a vine, by not being conspicuously fuzzy, by being thornless, and by having black berries. The name *Solanum nigrum* is sometimes misapplied to this species.

Other: Black Nightshade contains alkaloids (including tropane, pyridine, solanine) and sterols. Symptoms include digestive disturbance, weakness, trembling, impaired breathing, and paralysis.

Contributed by Ryan Agnew



Burnweed

Erechtites hieraciifolius err-RECH-ah-tees high-er-ace-ah-FOAL-ee-us Asteraceae

Native to: Florida native

Florida abundance and distribution: Common weed, especially in moist burned areas.

Recognition: To about 3' tall, the leaves deeply incised, the teeth with sharp points. Flower heads swollen basally, green-with a little yellow. Achenes with parachutes.

Contributed by George Rogers. Photos by John Bradford





BUSHY BLUESTEM

Andropogon glomeratus an-dro-POE-gone glow-mer-AY-tus Poaceae

Native to: Central America, West Indies, North America

Florida abundance and distribution: Most of Florida, especially on moist soils

Recognition: Forms a narrow clump of flattened blue-green leaf blades. Flower stalks topped with dense, fluffy, silvery pink to white panicles. Rises to 6' tall above foliage in late summer to early fall. Panicles soften into billowy plumes.

Potentially confused species: Andropogon glomeratus and A. virginicus are the most common Andropogons in Florida. Andropogon virginicus differs by having its flowering mostly along the stems as opposed to concentrated toward the tops. See www.floridagrasses.org.

Contributed by Janel Schaffer



BUTTONWEED

Spermacoce verticillata sperm-ah-COSE-ee ver-tiss-ah-LAY-tah Rubiaceae

Native to: South America

Florida abundance and distribution: Throughout most of the Peninsula, a dominant and pervasive weed of many habitats.

Recognition: Tough erect or sprawling weed having narrow opposite (or apparently whorled) leaves with a fringed stipule between the bases, leaves often numerous in axillary tufts; flowers tiny, 4-petalled, aggregated into semi-globose white buttons.

Potentially confused species: The native *Spermacoce remota* (S. assurgens) likewise occurs in weedy situations. It is less robust and often smaller; the leaves are not clustered in axillary tufts; its flowers are in tight clusters but may be light pink (vs. white) or white, and the clusters are not globose.

Contributed by George Rogers



CAESAR WEED

Urena lobata you-REEN-ah lobe-AY-tah Malvaceae

Native to: Originally from Asia, and now throughout tropical and subtropical regions around the globe

Florida abundance and distribution: Most abundant in South Florida

Recognition: Bushy growth pattern with low branching. Leaves grayish-green and alternately arranged with serrate margins, with a cluster of glands on the underside where the petiole joins the blade. Light pink flowers about 1 cm wide, usually with 5 petals. Fruit shaped like a dimesized pie with bristly segments that cling to fabric.

Contributed by Ginelle Monico





CAMPHORWEED

Heterotheca subaxillaris het-er-oh-THEE-cah sub-axe-ah-LAIR-us Asteraceae

Native to: Florida native

Florida abundance and distribution: Common in dry sandy places throughout the state

Recognition: Aromatic fuzzy herb of dry areas. Flower heads bright yellow. Fruits tiny "parachutes" in a head, resembling dandelion

Contributed by George Rogers



Canadian Horseweed

Conyza canadensis con-EYE-zah can-ah-DEN-sis Asteraceae

Native to: Florida native

Florida abundance and distribution: Abundant throughout

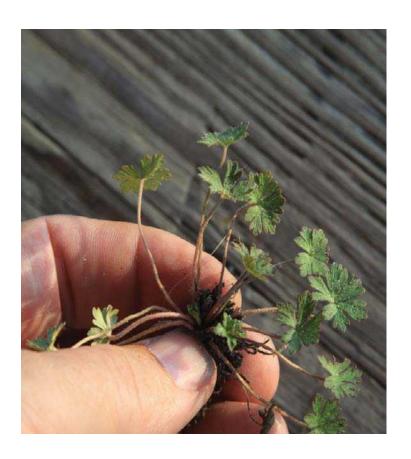
Recognition: Potentially to several feet tall, with hispid-hirsute stems and leaves. Leaves alternate, narrowly elliptic to linear, sessile on mature stems, often twisted, long-pubescent. Flowers in small white heads in uncrowded racemes/panicles, these in pyramid-shaped clusters at the top of the plant. When young, the rosette with oblanceolate coarsely serrate-lobed pubescent leaves reminiscent of many other Asteraceae. The long hairs help with identification.

Other: May cause dermatitis when handled.

Contributed by George Rogers.

Photos by John Bradford





CAROLINA GERANIUM

Geranium carolinianum ger-AIN-ee-um care-oh-lin-ee-AIN-um Geraniaceae

Native to: North America, including Florida

Florida abundance and distribution: Throughout, winter annual in disturbed places

Recognition: Hairy. Leaves in a rosette, palmately lobed. Flowers 1/2" diam., white to pink or purplish. Capsule resembling a bird's beak, springing open to launch 5 seeds.

Contributed by William Mullarkey



CHEESY TOES

Stylosanthes hamata style-oh-SAN-thees ham-AY-tah Fabaceae

Native to: Caribbean Islands

Florida abundance and distribution: Occasional weed in South Florida

Recognition: Creeping or sub-shrubby, often in turf, with trilobite (or pinnately compound) leaves and small yellow pealike flowers.

Potentially confused species: Rabbitbells (*Crotalaria rotundifolia*) have a similar habit and similar flowers but the leaves are simple.

Contributed by Ginelle Monico

Photo by John Bradford

Hooked on Cheesytoes

The first time I saw Cheesytoes (what a name!) was on a rough roadside a few years ago—the kind of scratchy littered place you change a flat tire. The Cheesytoes seemed to fit in among the coarse exotic weeds. Not recognizing the plant, I keyed it out and was pleased to greet a native species. Who knows, maybe it was rising defiantly from the original scrubby soil seedbank underlying the thoroughfare. At least cultivar 'Verano' (see below) withstands herbicide attack, which may help explain the roadside existence of today's plants.

Rising from an old seedbank is plausible, because species of *Stylosanthes* have particularly hard durable seeds. This matters in a crop plant you wish to grow from seed, and a recent (2011) study in Grass and Forage Science suggests microwaves to get the party started with one *Stylosanthes* species.

Stylosanthes is an odd little genus. There are more or less 25 species, 23 of them in warm America and two in the tropical Old World. Florida has three species, more or less: Stylosanthes biflora is widespread from Central to North Florida. Some native plant nurseries sell it. Why not? Tough, forgiving, undemanding, and attractive. Stylosanthes calcicola occupies the very southern tip of Florida and is statelisted as endangered. Native to our botanical home range in Palm Beach County is S. hamata.

Species of *Stylosanthes* interface with human activity mainly in the pasture. They are legumes able to grow under varied and trying circumstances. They fix nitrogen and have an unusual ability to extract phosphorus from their substrate. Not bad, let's see, fix nitrogen, extract phosphorus, and as an added bonus the plants repel ticks. All of these things have spawned fodder plantings from China and Australia to Brazil.

Our own *Stylosanthes hamata* is historically a broadly defined species, or perhaps "species plus some." Taxonomic studies, chromosomal observations, biochemical data, and most recently DNA work have combined over the years to show the "species" to be a mix of diploid plants (having one set of chromosomes) and hybrid strains with extra chromosome sets derived from other species, in other words a genetic hodgepodge. The "*Stylosanthes hamata*" cultivar 'Verano' is technically a combination of two species. So then, cryptic genetic pollution of a native population by alien cultivated material is possible, similar to the situation in *Phragmites* reeds.

In Florida both diploid (two chromosome sets) and tetraploid (four chromosome sets, probable hybrids) occur. Diploid and tetraploid "S. hamata" strains behave differently: the diploids require alkaline soil but the tetraploids do not; the diploids seem to be less drought tolerant; and the diploids seem to require long days for flowering. This, however, is all based on narrow data with the knowledge that there are multiple tetraploid strains. So overgeneralization is possible.

Similarly to the fruits on Sea Rocket, the fruits bust into two segments, one remaining on the parent plant and one hitting the road. In Sea Rocket the wandering segment floats away. In Cheesytoes, the wanderer has a hook to grab a passerby, and when that happens the more homebound segment remains attached to the parent plant. Oh, btw, "hamata" means hooked.



CHINESE-VIOLET

Asystasia gangetica ass-ah-STAYS-ee-ah gan-JET-ah-cah Acanthaceae

Native to: Old World Tropics

Florida abundance and distribution: Mostly South Florida, often on dryish sites.

Recognition: Sprawling or erect rhizomatous perennial having elliptic opposite leaves with smooth margins, and having terminal racemes bearing blue-violet or white or pinkish bilaterally symmetrical tubular flowers. Exploding capsules fling seeds.

Contributed by June Wilkinson



CINCHWEED

Pectis prostrata, P. glaucescens PECK-tus pros-TRAY-tah glau-KESS-ens Asteraceae

Native to: Florida native (*Pectis humifusa* introduced)

Florida abundance and distribution:

Widespread, in dry sandy disturbed sites, including turf. Can be mat-forming.

Recognition: Low mat-forming plant with narrowly elliptic, gland-dotted opposite leaves with ciliate margins. Flower heads yellow.

Potentially confused species: Pectis prostrata has sessile heads. Pectis glaucescens has pedunculate heads. There are additional Pectis species. Richardias can have slightly similar (but broader) pubescent opposite leaves, but are stipulate and are not gland-dotted.

Contributed by George Rogers

Photo of P. glaucescens by John Bradford

COONTAIL

Ceratophyllum demersum sair-at-OFF-ah-lum (sair-at-oh-FILL-um) dee-MURS-um Ceratophyllaceae

Native to: Florida native

Florida abundance and distribution: Aquatic weed throughout

Recognition: Plant resembles a fluffy tail, with feathery leaves divided into threadlike segments, each segment with tiny teeth, giving the leaf a rough feeling.

Potentially confused species: *Myriophyllum aquaticum,* an exotic species, has a similar overall aspect but the leaves are divided into fine pinnate segments resembling a comb or a fish skeleton.

Contributed by Sarah Lopinot



CRABGRASS

Southern Crabgrass: Digitaria ciliaris Indian Crabgrass: Digitaria longiflora Blanket Crabgrass: Digitaria serotina

dij-ah-TARE-eh-ah sill-ee-AIR-us lonj-ah-FLOOR-ah sair-OUGHT-ah-naw

Poaceae

Native to: Digitaria longiflora is not native; the other species are.

Florida abundance and distribution: All three species are widespread in the state.

Recognition: There are numerous species of *Digitaria* in Florida. See www.floridagrasses.org. These three are especially common weeds. All *Digitaria* species have long narrow fingerlike flowering spikes. The spikes are messy—attached at different heights and of different lengths (see left-hand photo below).

Digitaria ciliaris is a potentially tall weed often 2'-3' tall in disturbed sites. The spikelets have conspicuous marginal cilia. Digitaria serotina is a common turf weed. It forms low mats in lawns. The leaves are narrowly lanceolate and fuzzy. Digitaria longiflora is similar but not hairy, and the spikelets are very short (1.2-1.5 mm vs. > 1.5 mm in D. serotina).

Potentially confused species: Another common turf weed is Thin *Paspalum*; its spikelets are usually about 2 mm long and > 1 mm wide (vs. smaller in the *Digitaria* species).

Contributed by George Rogers





Left: Digitaria ciliaris inflorescence. Right: Digitaria serotina in lawn.





Creeping Beggarweed

Desmodium incanum des-MOE-dee-um in-CAN-um Fabaceae

Native to: Central and South America

Florida abundance and distribution: Throughout, also in other southern states and the Caribbean.

Recognition: Erect or prostrate hairy perennial with trifoliate leaves and elliptic to oblong leaflets. Terminal leaflet longer than the other two, dark green, often with a silvery stripe along the center vein. Flowers in a raceme, pink or purplish. Pod jointed, kidney-shaped, clings.

Potentially confused species: In *D. tortuosum* the leaflets are ovate to narrowly lance-elliptic with flowers blue-green to pink, the leaflet lacking the silvery marking. In *D. triflorum* the leaflets are obovate to obcordate, and can have a notched tip. *Desmodium triflorum* is more of a groundcover. It lacks the silverish stripe.

Contributed by Andrea Schechter. Flower photo by John Bradford.

Bottom photo: Note light-colored markings along main leaflet veins.



CREEPING-CUCUMBER

Melothria pendula mel-OH-three-ah PEND-you-luh Cucurbitaceae

Native to: Much of the eastern and central U.S. and beyond, including Florida, now scattered in many parts of the world.

Florida abundance and distribution: Throughout

Recognition: Clinging vine with coiled tendrils. Leaves alternate, with 3-5 lobes, usually dark green, up to about 3 inches long and wide, largest at the base of the vine and tapering to the top of the vine, which may be several feet long. Flowers small, yellow, with 5 petals. Fruits resemble very small watermelons smelling like cucumbers and turning black when ripe. Seeds white.

Other: Fed to animals in Mexico. The ripe black fruit reportedly can function as a laxative.

Contributed by William Mullarkey.

CREEPING INCHPLANT TURTLE VINE

Callisia repens caw-LIZ-ee-ah REE-pens Commelinaceae

Native to: Tropical America

Florida abundance and distribution: Found in several counties of Florida, Louisiana and Texas, also Puerto Rico, V.I. and Hawaii.

Recognition: As the name suggests, it is a creeping mat. Leaves glossy, simple and alternate, semi-succulent, cordate to ovate-lanceolate, sometimes with purple margins, purple underneath, also purple on stems. There are small and inconspicuous short-lived delicate white flowers

Contributed by Andrea Schechter

Photo: Forest & Kim Starr





CREEPING INDIGO

Indigofera spicata in-dig-OFF-er-ah spike-AY-tah Fabaceae

Native to: Africa and the Arabian Peninsula, widely naturalized in warm areas.

Florida abundance and distribution: Frequent in Florida, except for the western panhandle.

Recognition: Herb with branches spreading flat on the ground and compound leaves with mostly 5 or 7 leaflets. The most conspicuous feature is the salmon color of the tightly clustered flowers.

Potentially confused species: The only indigos likely to be seen in south Florida growing flat on the ground are Creeping Indigo and the less common native Coastal Indigo (*Indigofera miniata*). Coastal Indigo has small, narrow leaflets covered with pale hairs lying flat which give the leaves a grayish look, and has flowers and fruits less crowded.

An erect species is Hairy Indigo (*I. hirsuta*) which also is in this manual.

Other: Creeping Indigo has been used for erosion control and soil improvement, but planting in pasture is avoided because the plant contains a toxic amino acid that causes liver damage and abortion. This species has been used to make indigo dye, but the larger *Indigofera tinctoria* was normally used.

Contributed by David Black, Ph.D.



CUDWEEDS

(Everlastings, Purple Everlastings)
Gamochaeta purpurea
(and additional similar species)
Consider also Pseudognaphalium
gam-oh-KEET-ah purr-PURR-ee-ah
Asteraceae

Native to: Florida native

Florida abundance and distribution: Throughout

Recognition: Leaves narrow, sometimes somewhat spoon-shaped; the entire plant woolly. Flowers inconspicuous.

Rabbit Tobacco is Pseudognaphalium obtusifolium. Pseudognaphalium differs from Gamochaeta by having the flower heads in more-open branching inflorescences, as opposed to congested spikelike wands. Both of these genera have species formerly assigned to Gnaphalium. Sorting out the species in this complex is beyond the scope of the present manual.



Cutleaf Evening Primrose

Oenothera laciniata een-OTH-er-ah la-sin-ee-AY-tah Onagraceae

Native to: Florida native

Florida abundance and distribution: Throughout

Recognition: Leaves more or less elliptic. Leaf margins with irregular entire to coarsely toothed or lobed margins, giving the name Cutleaf Evening Primrose. Flowers yellowish, with long inferior ovaries. Pods long and bean-shaped.

Contributed by George Rogers



CUTLEAF GROUNDCHERRY

Physalis angulata FISS-al-is ang-yoo-LAY-tuh Solanaceae

Native to: United States and tropical America

Florida abundance and distribution: Dry disturbed areas throughout Florida.

Recognition: Plant 60-90 cm with dark green oval toothy leaves with simple hairs. Fruit surrounded by distinctive 10-ribbed lantern-shaped calyx with dark veins. Flower five-sided and yellow.

Potentially confused species: Distinguished from the several other Florida *Physalis* species by the inflated, 10-sided lantern-like calyx with dark venation and the leaves generally more sharply toothy in appearance. *Physalis walteri* and *P. angustifolia* have stellate trichomes, *P. walteri* throughout, the plant and *P. angustifolia* on the sepals. The other species have simple trichomes. *Physalis pubescens* and *P. arenicola* have similar pubescent leaves with irregular lobes and blunt teeth; the former has dark spots on the flower, and the latter has flowers with no dark spots. There are additional species but not likely encountered as weeds, esp. in South Florida.

Contributed by Carrie Black



DANDELION

Taraxacum officinale tur-AX-ah-cum off-iss-a-NAIL-ee Asteraceae

Native to: Eurasia, now widespread around the globe.

Florida abundance and distribution: Throughout

Recognition: An herbaceous perennial with milky sap and with 3"- 12" long leaves with deeply toothed edges, in a basal rosette. Dandelions are easily recognized by their yellow flower heads that turn into round balls of silvery-white parachutes to blow away in the wind.

Contributed by Ginelle Monico



DICHONDRA PONY'S FOOT

Dichondra caroliniensis die-KON-dra care-oh-linn-ee-ENN-sis Convolvulaceae

Native to: Native to Florida

Florida abundance and distribution: Common throughout the

state

 $\textbf{Recognition:} \ \ \textbf{Creeping turf weed having alternate cordate leaves.}$

Flowers small, white, bowl-shaped.

Potentially confused species: Drymary (*Drymaria cordata*) has opposite (vs. alternate) leaves with no (or slight) basal notch.



DOLLARWEED

Hydrocotyle umbellata

hi-dro-CAW-ta-lee um-bell-AY-tah Apiaceae

Native to: Native to Florida

Florida abundance and distribution: Common throughout the state.

Recognition: Produces tangled, air-filled horizontal stems that root at the nodes. Blades circular with notched margins. Petioles attach to center of leaf blades. Flowers tiny, white, in a single terminal umbel.

Potentially confused species: There are several similar *Hydrocotyle* (and *Centella*) species in Florida.

Centella asiatica has cordate leaves.

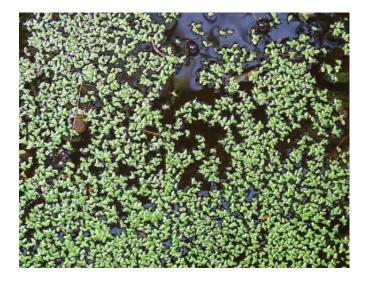
Hydrocotyle bonariensis has large (7 cm) leaves with variable margins, which may be variably dentate-notched, and may be conspicuously toothed, and has compound umbels.

Hydrocotyle ranunculoides is an aquatic species with a notch all the way to the petiole.

Hydrocotyle umbellata has a round leaf often with the marginal notches of equal depth (but not reliably distinguished from H. verticillata by this alone), and a simple umbel.

Hydrocotyle verticillata has a round leaf often with one notch deeper than the others, and flowers in multiple whorls (as opposed to the single umbel in the other species)

Contributed by Mike Derer



DUCKWEED

Lemna species LEM-nah Lemnaceae

Native to: Multiple species are native to Florida.

Florida abundance and distribution: Throughout on surfaces of slow-moving waters, occasionally on wet mud.

Recognition: Tiny floating plants with 1-3 leaves measuring 1/16-1/8 inch in length. Roots dangling. Flowers essentially invisible.

Contributed by Sarah Lopinot



DRYMARY

Drymaria cordata dry-mar-EE-ah cord-AY-tah

dry-mar-EE-ah cord-AY-tah Caryophyllaceae

Native to: Tropical America, now around the globe

Florida abundance and distribution: Common turf weed throughout the state. Prominent in the winter, shade-tolerant, and fond of moisture.

Recognition: Creeping turf weed with opposite more or less circular notched sessile or nearly sessile leaves; flowers small, white, with 5 petals, each of these split to give the impression of 10 petals, on stalks rising to about a foot tall. Fruits burr-like due to persistent "Velcro" calyx, sticking to fabric.

Potentially confused species: Chickweed (*Stellaria media*) is related and similar but has fuzzy leaves on well developed petioles. Pony's foot (*Dichondra caroliniensis*) has alternate (vs. opposite) more-cordate leaves on well developed petioles.

Contributed by George Rogers



DUTCH WHITE CLOVER

Trifolium repens try-FOH-lee-um REE-penz Fabaceae

Native to: Europe, West Asia and North Africa

Florida abundance and distribution: Naturalized in the United States

Recognition: This dense mat-forming creeping clover to 1 foot tall has alternate, trifoliate leaves with white chevron markings on the leaflets. Flower heads white, becoming pinkish with age.

Potentially confused species: This species differs from other weeds having trifoliate leaflets by having a white chevron mark on each serrate leaflet.

Contributed by Andrea Schechter

ECLIPTA

Eclipta prostrata ee-CLIPT-ah pros-TRAY-tah Asteraceae

Native to: Florida native

Florida abundance and distribution: Marshes, moist disturbed sites, irrigated landscape areas.

Recognition: To 2' tall, rooting at the nodes, with opposite, hairy, lanceolate to linear leaves with serrate or entire margins. Flower heads stalked with numerous white ray flowers and tiny disk flowers.

Potentially confused species: Oakleaf Fleabane (in this guide) likewise has numerous white ray flowers but the leaves are alternate and lobed (vs. opposite and mostly lanceolate).

Other: "Eclipta" comes from Greek for "deficient," in reference to the absence of a pappus.

Contributed by June Wilkinson



FIDDLER'S SPURGE

Poinsettia heterophylla poin-SET-ee-ah het-er-OFF-ah-la Euphorbiaceae

Native to: Florida native

Florida abundance and distribution: Weedy disturbed sites throughout

Recognition: Milky sap. Irregularly shaped leaves. Flowers tiny, surrounded by irregular whitish bracts.

Easily confused species: Resembles Wild Poinsettia but bracts not red.











FLORIDA BEGGARWEED

Dixie Beggarweed

Desmodium tortuosum

des-MOH-dee-um tor-tew-OH-sum
Fabaceae

Native to: West Indies, South and Central America, Florida, Texas and several other Southern states.

Florida abundance and distribution: Throughout

Recognition: Erect annual or low shrub, to 8' tall, with green trifoliate leaves having ovate to oblong leaflets. Terminal leaflet longer than the lateral leaflets; also the stalk of the terminal leaflet is longer. Terminal or axillary raceme bearing pealike flowers pink to bluish-green, in pairs. Pod twisted and jointed, attaching itself to anything that passes by tiny hooked hairs. The entire plant is pubescent.

Potentially confused species: Desmodium incanum (Creeping Beggarweed, Spanish Clover) dark green in color often with a silver stripe along the center vein. Desmodium triflorum (Three-Flowered Beggarweed) creeps on the ground surface, much smaller than Florida Beggarweed. On D. tortuosum (see photo) look for conspicuous stipels (outgrowths at the base of each leaflet).

Other: Cultivated in Florida for forage, a forb/herb, also cultivated as a nitrogen-enricher.

Contributed by Andrea Schechter. Photos by John Bradford

FLORIDA PELLITORY

Parietaria floridana

pah-rye-ah-TEAR-ee-ah flore-ah-DAIN-ah Urticaceae

Native to: Florida to South America

Florida abundance and distribution: Abundant in most of Florida, except for northwest region

Recognition: Short-lived delicate but often abundant perennial or annual herb having opposite (or infrequently alternate) leaves the size of a dime. Flowers axillary, inconspicuous, winter and spring.

Other: Flowers in Winter/Spring

Contributed by Mike Derer



FLORIDA-PUSLEY

Richardia scabra reh-CHARD-ee-a SCAY-brah Rubiaceae

Native to: Tropical America, presumably not Florida

Florida abundance and distribution: Throughout

Recognition: Sprawling weed with opposite leaves having a fringed stipule between the bases. Flowers white and starshaped. Resembles the other *Richardia* species in Florida. See Mexican-Clover (*Richardia grandiflora*) for comparison and general discussion. *Richardia scabra* has white star-shaped flowers between the other two *Richardia* species in size but with overlapping dimensions, leaf surfaces with the hairiness diminished toward the center, and fruit segments warty and with a narrow inner face. Very similar to *Richardia brasiliensis*, with its flat (vs. narrow) inner face of the fruit segment the best distinguishing character.

Other: Regarded as an indicator for nematodes in turf.

GALLANT SOLDIERS, SHAGGY SOLDIERS

Galinsoga quadriradiata

(Galinsoga parviflora var. quadriradiata) gal-in-SOGE-ah quaq-ra-rade-ee-AY-tah Asteraceae

Native to: Tropical America

Florida abundance and distribution: Throughout

Recognition: Annual 2'-3' tall, with shallow roots. Stems and opposite leaves hairy. Leaf blades vaguely triangular with 3 main veins. Flower heads ½"-1/2" wide, with a yellow center surrounded by 5 white ray flowers, each with three points at the tip (compare with *Tridax*). *Tridax* has rougher leaves with longer more conspicuous fuzziness, and proportionally narrow leaves without the multiple large main veins of *Galinsoga*.

Other: The juice is a blood coagulant and helps diminish swelling in open wounds.

Contributed by William Mullarkey and June Wilkinson.

Photo courtesy of Daniel L. Nickrent and PhytoImages, Southern Illinois University.





GOPHERTAIL LOVEGRASS

Eragrostis ciliaris air-ah-GRAWZ-tus sil-ee-AIR-us Poaceae

Native to: Africa, Asia, and Southern America

Florida abundance and distribution: Throughout the state. Tolerant to salty areas and dry sand.

Recognition: Annual grass. Flower stalk narrow, fuzzy, and reddish.

Contributed by Geovany Esteban



GRASSLEAF SPURGE

Euphorbia graminea you-FORB-ee-ah gram-IN-ee-ah Euphorbiaceae

Native to: Mexico

Florida abundance and distribution: Central and southern counties, locally abundant

Recognition: Milky sap. Leaves variable, irregularly shaped, entire-margined to bluntly and coarsely serrate. Flowers white, small, inconspicuous, star-shaped with 5 "petals"; the apparent ovary (female flower) markedly 3-lobed.

Greenbriar, Catbriar

Smilax auriculata and additional species

SMILE-axe hour-ick-you-LAY-tah Smilacaceae

Native to: Smilix auriculata and multiple additional species are native to Florida.

Recognition: Aggressive and very common tough-textured vines, often with tendrils and/or thorns. Leaves elliptic or trilobed, the main veins more or less parallel. Flowers in an umbel.

Other: These plants make enormous rhizomes.

Contributed by: George Rogers

That rhizome can be as big as your arm, a real whopper. No typhoon or fire is going to discourage that nugget of life. But how about hungry hogs? One of our species, *Smilax bona-nox* reportedly has prickles on the rhizome (at least sometimes—the species is variable). This adaptation possibly evolved in the natural range of wild peccaries and thus was pre-adapted to deter feral hogs, perhaps. It would be fascinating to know if the prickly rhizome has affected the distribution and abundance of *S. bona-nox* relative to the piggy-wiggies who root and snoot hereabouts. To repeat for emphasis, however, the prevalence of prickly rhizomes in *S. bona-nox* is unclear—not the sort of thing botanists observe often.



Thirsty cowboys enjoyed *Smilax* when they passed on the whiskey in favor of a nice refreshing sarsaparilla. Maybe those cowboys needed it for personal reasons: one of the early uses of sarsaparilla was to treat syphilis. Different species of *Smilax* historically have wound up on dinner tables: the rhizomes as pseudo-spuds, as flour, as a natural jello, and as stand-in for asparagus.

Is munching *Smilax* is a good idea? That the genus has a history in medicine is a sign of bioactivity, and bioactivity is a sign of potential consequences. *Smilax* is sufficiently neurotoxic to be a potential treatment for seizures. Sarsaparilla served to alleviate rheumatism. Some species yield steroid precursors. So when we go walk the garden path, please don't hand me a *Smilax* tendril to nibble (unless I'm having a seizure).

Botanist John Mitchell provides a recipe for Smilax aphrodisiac some readers may wish to try:

- Smilax roots
- One white hot nail
- · Coatimundi penis

Chill the mixture for a week and take a teaspoon a day. (Let me know.)

Smilax is the Monocot twin to Dicot grapes, right down to the tendrils and fruit clusters. They are related to Lilies, and the flowers look like tiny Lily flowers. They don't smell so great though — an older name for the genus is *Coprosmanthus*, meaning "dung-smelling flower." Of the dozen species in Florida, those encountered in the area of Palm Beach County are *Smilax auriculata* (very common, leaf blades usually with basal lobes, the leaf margins not bony, the midvein beneath the leaf jutting out similarly to the side veins, the female flowers with 2-3 stigmas), *S. bona-nox* (mnemonic: *bona-nox* has bony leaf margins), *S. laurifolia* (leaf usually narrow with the base unlobed, the midvein beneath more prominent than the side veins, the female flowers with just one stigma), and *S. tamnoides* (bottom half of leaf margin with prickly little teeth). Good luck! The leaf shapes are dismayingly diverse within species.





 $Smilax\ auriculata$ (both photos this page and S. bona-nox on previous page by John Bradford)





HAIRY INDIGO

Indigofera hirsuta in-dig-OFF-ah-rah hear-SUIT-ah Fabaceae

Native to: Africa, southern Asia, and northern Australia. Widely naturalized.

Florida abundance and distribution: Throughout Florida in well drained flatwood sites and in disturbed areas. Adapted to sandy soils with good drainage, sometimes on land too dry for other legumes.

Recognition: Shrubby herbaceous annual, woody at the base, shoots with brown spreading hairs. Leaves with 5 or 7 leaflets. Dense clusters of small, bright salmon-red flowers. Pods cylindrical with spreading brown hairs.

Potentially confused species: Other species of *Indigofera* have similar clusters of salmon flowers but only this one is a large plant with conspicuous spreading hairs.

Other: Hairy Indigo is an effective nitrogen fixer and resistant to root knot nematodes, making it valuable for improving Florida's poor, sandy soils. Young growth can be cut for hay and fresh re-growth makes high protein forage. Older growth becomes woody and loses value.

Contributed by David Black Ph.D. and Geovany Esteban



HEARTLEAF SIDA, LLIMA

Sida cordifolia SIGH-dah cor-daw-FOAL-ee-ah Malvaceae

Native to: Tropical America (not Florida)

Florida abundance and distribution: Abundant in the southern half of the state

Recognition: Tall (to 5') fuzzy weed with heart-shaped serrate-margined leaves and round yellow flowers, these often congested and with many stamens

Potentially confused species: Wireweed (*Sida ulmifolia*) is usually smaller, is not fuzzy, and has its flowers nearly sessile (vs. on long wirelike peduncles).



HEMPVINES

(see also Mile-a-Minute Vine)

Mikania cordifolia (Florida Keys Hempvine)

Mikania scandens (Climbing Hempvine)

my-CANE-ee-ah cord-ah-FOAL-ee-ah SCAN-denz

Asteraceae

Native: Both species native

Florida abundance and distribution: Both throughout (*M. cordifolia* of limited distribution in Panhandle)

Recognition: Both species climbing vines with opposite cordate or arrow-head shaped (to deltoid) leaves and "fuzzy" white to pinkish flower heads in corymbs. *Mikania cordifolia* has the phyllaries > 6 mm long; in *M. scandens* they are < 5 mm long. See also Mile-a-Minute Vine in this guide for comparison with this invasive exotic species.

Contributed by George Rogers

MILE-A-MINUTE VINE

Mikania micrantha my-CANE-ee-ah mi-CRAN-tha Asteraceae

Native to: Tropical America

Florida Abundance and Distribution: In southernmost Florida near Homestead (2011) but capable of rapid spreading. Check the Internet for updated distribution data.

Recognition: This vine can grow an inch per day. Thin leaves are heart shaped, in opposite pairs—from ½ to 5 inches long. Greenish-white flower heads are terminal in dense bunches. See also "Hempvines" in this guide.

Potentially confused species: *Mikania micrantha* differs from the native *M. cordifolia* by having flower heads < 6 mm long. *Mikania micrantha* differs from the native *M. scandens* by having pale (vs. darker) leaf coloration and no reddish foliar tints, white (vs. pinkish) flower heads, and phyllaries and inflorescence axes nearly hairless.

Other: American Army introduced it into the Pacific islands during WWII for camouflage. The vine has spread to become one of the most noxious plants in parts of Tropical Asia, threatening to overtake acres where tea, rubber, and coconuts are in production. It can be used as a source of animal fodder, and has localized medicinal uses as anti-infective, balm for insect bites and poison ivy. This species is currently under study in the United States as a potential antibiotic.

Contributed by Carolyn Hendry

HORSEHERB

Calyptocarpus vialis cal-ip-toe-CARP-us vie-AL-us Asteraceae

Native to: Southeastern U.S. to Central America.

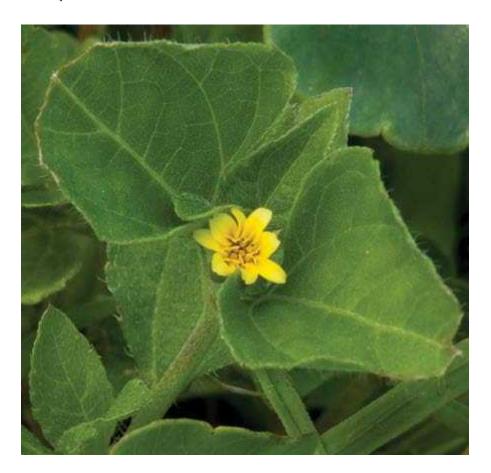
Florida abundance and distribution: Throughout Florida, mostly in the southern part.

Recognition: The small opposite broad leaves have toothed margins and conspicuous veins. Stems grow along the ground, rooting at nodes. Bright yellow flower heads are a quarter-inch across.

Potentially confused species: Nodeweed, *Synedrella nodiflora* is almost indistinguishable vegetatively and in the appearance of the flower head. *Synedrella* differs in the achene on the ray flowers having a lacerate wing, in comparison with the non-lacerate wings in *Caylptocarpus*. Often, but not very convincing, in *Synedrella* the leaf venation is dominated by the arching basal veins to the point that the secondary veins are conspicuously subordinate, while in *Calyptocarpus* the secondary veins more or less rival the arching basal veins. Good luck with that distinction!

Contributed by David Black, Ph.D.

Photo by John Bradford



INDIAN-HEMP

Sida rhombifolia SIGH-dah rhom-bah-FOAL-ee-ah Malvaceae

Native to: Florida native

Florida abundance and distribution: Throughout, a common weed of brushy disturbed sites.

Recognition: Subshrubby weed to 5' tall with rhombic, alternate leaves; flowers and fruits on long (1'-3") wirelike stalks.

Potentially confused species: Multiple species of *Sida* inhabit South Florida. Wireweed (*Sida ulmifolia*) is similar but the flowers and fruits are sessile or nearly so (vs. being on a wirelike stalk). Heartleaf Sida (*S. cordifolia*) has heart-shaped velvety leaves.



Jack-in-the-Bush

Chromolaena odorata krome-ah-LANE-ah oh-door-AY-tah Asteraceae

Native to: North America

Florida abundance and distribution: Invasive in crop lands and neglected pastures. Common in weedy forest margins and openings, roadsides, on well-drained soil.

Recognition: Fairly large, woody and shrub-like, tending to lean on other plants, having long sprawling branches, to 12' tall. Leaves opposite, velvety-pubescent, ovate with toothed edges. Flowers in fuzzy terminal brush-like clusters, white to light blue with thread-like petals. Crushed foliage with a characteristic fragrance.

Potentially confused species: Species of *Eupatorium* are similar but generally smaller in stature, not velvety-pubescent, usually whiteflowered, and less aggressively weedy in ruderal areas.

Contributed by Nathan Hendry





Juba's Bush

Iresine diffusa eye-res-EYE-nee duh-FEW-sah Asteraceae

Native to: Florida native

Florida abundance and distribution: A common subshrub found in sun to partial shade in disturbed sites and hammocks, throughout most of Florida.

Recognition: Subshrub to 3' tall with opposite leaves. Flowers small and very numerous in a diffuse eye-catching plumelike panicle.

Other: Pollen may be allergenic. Larval food host plant for Hayhurst's Scallopwing Skipper butterfly. Juba was King of Mauretania (North Africa) around 25 BCE.



KYLLINGA

Kyllinga brevifolia and additional species

kei-LIN-ga brev-ah-FOAL-ee-ah Cyperaceae

Native to: Around world in warm regions

Florida distribution and abundance: Throughout. Grows best in sunny wet conditions. A common turf weed in irrigated or otherwise moist settings.

Recognition: Perennial rhizomatous herb rarely to 2 feet—usually much shorter. Flower cluster green, dome-shaped, to about 1/4"-1/2" long.

Potentially confused species: *Kyllinga brevifolia* is rhizomatous; the similar *K. pumila* is merely clumping; also occurring locally, *K. odorata* has a white (vs. green) flower cluster.

Internet source: www.floridagrasses.org

Contributed by Carolyn Hendry and Ryan Agnew





LANCELEAF RATTLEBOX

Crotalaria lanceolata

kroh-tuh-LAR-ee-ah lan-see-oh-LAY-tuh Fabaceae (Leguminosae)

Native to: Africa and Madagascar

Florida abundance and distribution: Naturalized and distributed throughout Florida, but less in the Panhandle, and in other southeastern states

Recognition: Erect annual or perennial with alternate compound trifoliate leaves, the leaflets linear to linear-lanceolate. The center leaflet longer than the lateral leaflets. About 10-40 small yellow flowers having reddish-brown streaks (veins) sit atop terminal racemes. Pod approx. 4-6 cm long, oblong, with a groove on one side, pubescent, and curved upward at the tip, with 20-50 seeds. As fruit matures, the seeds break loose inside the pod and "rattle."

Potentially confused species: There are many species of *Crotalaria* in Florida, native and non-native. This species has linear-lanceolate (vs. broader) leaflets and reddish-brown floral markings. See also Smooth Rattlebox and Showy Rattlebox.

Contributed by Andrea Schechter

Lawn Orchid Soldier's Orchid

Zeuxine strateumatica zoo-ZINE-ee strat-ah-MAT-eh-cah Orchidaceae

Native to: Old World Tropics

Florida abundance and distribution: Throughout, often as lawn weed

Recognition: Plant not much taller than surrounding turf, with grasslike leaves. Flowering spike to 4 inches tall, the flowers 2 to numerous, white, horizontal with a yellow lip. Bracts papery, reddish-brown. Flowering winter to early spring in Florida.

Other: Apparently apomictic or self-pollinating.

Contributed by Ryan Agnew

LESSER SWINECRESS

Lepidium didymum leh-PID-ee-um DID-ee-mum Brassicaceae (Cruciferae)

Native to: Worldwide weed of unclear origins

Florida abundance and distribution: Throughout

Recognition: Creeping weed with finely dissected pinnate leaves. Fruits flat and two-lobed. Crushed foliage has strong odor.





LILAC TASSELFLOWER

Emilia sonchifolia

Asteraceae

Native to: Lower 48 states, Hawaii, and Puerto Rico

Florida abundance and distribution: Most abundant in lower half

of state

Recognition: Flower heads "tassels" usually purple or lilac in

color. Emilia fosbergii is similar but with red tassels.

Contributed by Mike Derer



LITTLE IRONWEED

Cyanthillium cinereum

(Conyza cinerea, Senecioides cinerea, Vernonia cinerea) Asteraceae

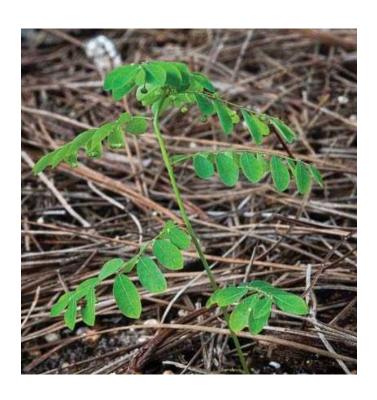
Native to: Probably Old World Tropics, now widespread globally

Florida abundance and distribution: Southern half of Peninsula

Recognition: To about 18" tall with alternate serrate leaves, often with winged petioles. Flower heads numerous in corymbs, small, lilac.

Potentially confused species: Similar to Lilac Tassel Flower (in this guide) but the flower heads smaller and more numerous, and with narrow, serrate leaves (vs. leaves lobed with clasping leaf bases).

Contributed by June Wilkinson



Long-Stalked Phyllanthus

Phyllanthus tenellus fil-LAN-thus ten-ELL-us Euphorbiaceae

Native to: Old World Tropics

Florida abundance and distribution: Common throughout Florida

Recognition: Upright to 2' tall but often shorter with reddish stems and leaf margins. Inconspicuous white star shaped flowers. Fruit green and round on long stalks. Leaves oval and slightly pointed at ends, alternate in two rows on lateral shoots.

Potentially confused species: Chamber Bitter (*Phyllanthus urinaria*) has warty (vs. smooth) fruit without a stalk and more closely spaced leaves giving it a bushy appearance.

Contributed by Carrie Black

Photo by John Bradford



Manyspike Flatsedge

Cyperus polystachyos Cyperaceae sigh-PEAR-us pol-ee-STAKE-ee-us

Native to: Florida native

Florida abundance and distribution: Common throughout

Recognition: True to its name, this common sedge has numerous flat spikes. It is somewhat unusual locally by having only 2 stigmas (vs. the more common possession of 3 stigmas).

Potentially confused species: Other *Cyperus* species. Nutsedges appear below; they have 3 stigmas, and the spikes are more spread out (vs. usually tightly clustered). See www.floridagrasses.org

Contributed by George Rogers

More on Cyperus polystachyos

Modified from Treasure Coast Natives

This species grows everywhere. Why are some species rare while others are taking over the world? Manyspike Flatsedge covers Florida and ranges southward to South America. Is it then tropical? Well, yes, and looking northward it goes all the way to Maine. The plant is also in Hawaii, Africa, Asia, and Australia. Where did it originate? Where was it distributed before ships circled the Globe? Who knows?

When I say grows everywhere, I don't merely mean on a global scale. To narrow the focus locally, there is probably one within 200 yards of where you are sitting. The habitats are just about any: lake shores, depression ponds, roadside ditches, hammocks, pine woods, weedy roadsides, saltmarshes, shell mounds, burned forests, prairies, sand hills, and scrub areas. The sites are often moist, but not necessarily, and the soil is often organically enriched but then again can be acid, alkaline, clay, lava, or sand.

The species is as varied as it is widespread, a challenge to taxonomists who disagree on its definition. Manyspike Flatsedge can inhabit your mowed lawn, or left alone may be two feet tall. The inflorescence may be compact or spread out, branched or not, and yellowish or red.

How does a species get around like that? The fruits are tiny (1 mm long) achenes (fruits that resemble seeds), as is true of the other 599 species of *Cyperus*. The achenes float and blow around, and probably ride in or on birds. Oh, by the way, several other species of *Cyperus* are global super-weeds too. If you are not familiar with *Cyperus*, think of Papyrus, which is weedy itself.

The surface of the achene is sculptured with bumps and depressions. And this is common on small seeds and achenes, especially in wet habitats. Why the patterned surface? The leading thought in my experience is to cling to mud on birds' feet, like mud sticks to the sculpted pattern of your hiking boots. Or a rough irregular surface may catch the wind. Maybe passing through a bird's intestine helps the achene initiate contact with soil mycorrhizae or other microbes, or remain moist, or get a tiny boost of nutrition. Or, much more boringly, maybe the external bumps and valleys are "bubble wrap."

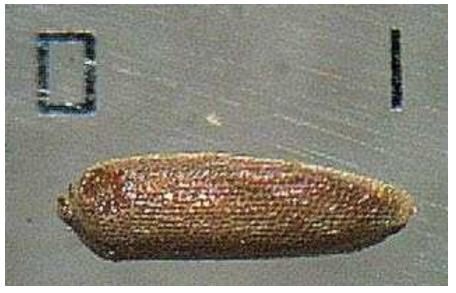
That this sedge grows on salty places adjacent to the sea probably helps it roam the Seven Seas.

But how will I know it when I see it? First off, it looks like any garden variety standard "Cyperus" Flatsedge with leaves clustered at the base and another tuft clustered at the top of a triangular stem. The flowering spikes are flat and numerous. Now here is the easy part: there are just 2 styles, as opposed to the 3 in most of our other locally common Cyperus species. If the styles are 2 and the spikes are flat, you probably found it. (And to make certain, the spikelet is under 2 mm wide and there is no elongate pointed tip on the spikelet scales.)

What do Florida, New England, Brazil, Morocco, Italy, Israel, Thailand, Polynesia, and Australia have in common? Cyperus polystachyos.

Photos on next page by John Bradford. Bottom photo is the achene 1 mm long.





MATCH-WEED

Phyla nodiflora FY-luh no-dah-FLOR-uh Verbenaceae

Native to: Warm U.S. to South America

Florida abundance and distribution: Poorly drained soils without humus, in low moist areas. Matchweed spreads by both seeds and stolons. Growth rate fast. Full to partial sun.

Recognition: Spreading and forming large open or dense patches. About 1-3 inches or taller in flower. Opposite leaves with small teeth at the outer tip. Hairy branching stems. The purple to white flowers forming a match-head appearance. It blooms all year.

Other: Also known as Mat Lippia, Fog Fruit, or Turkey Tangle. A tea (chachahan) is made from the leaves. Artificial sweetener.

Contributed by Grace Walton



MEXICAN-CLOVER

Richardia grandiflora reh-CHARD-ee-ah grand-ah-FLOOR-ah Rubiaceae

Native to: South America

Florida abundance and distribution: Very abundant (sometimes forming carpet) in low mowed disturbed sites such as road median strips.

Recognition: Sprawling mat-forming fuzzy plants with opposite leaves, having a fringed stipule between the leaf bases. Flowers pink to near-white.

Potentially confused species: There are two other species of *Richardia* in South Florida. The other two have smaller (to 10 mm vs. > 12 mm long), white to pale lilac flowers. *Richardia brasiliensis* has fruit segments with short hairs on the surface and the inner corner broad. Its leaves are covered uniformly on the top surface with hairs. *Richardia scabra* has fruit segments with bumps on the surface and a narrow inner corner. It leaves are hairy toward the upper surfaces and are bare or less hairy toward the middles. The name "Florida Pusley" is sometimes applied to these species, especially *R. scabra*, but the species are tough to distinguish and the name is applied inconsistently.

Other: Mexican-Clover is one of the most abundant mowed-area weeds in Florida, forming carpets of pink-lilac flowers. These are not true "clovers," but instead are members of the Coffee Family.



Dreamy Drifts of Pink

Modified from Treasure Coast Natives

Returning reluctantly to my office just now from Tropical Smoothie with my Limey Blimey smoothie, heavenly meadows of pink in the athletic field soothed my troubling mind, thanks to a member of my favorite Dicot family, the Coffee Klatsch (aka the Rubiaceae). Typical of life here in Misnomer Meadows, "Mexican-Clover" is no Clover and it is not natively Mexican. Thus for the sake of accuracy some call it Fairy Cups. If you live in South Florida you have seen the pink cloud in the median strip. Some observers say it looks like snow, but those must be Floridians who have never actually seen snow. And just like snow, this weed's not native to South Florida. South America is home.

The genus *Richardia* consists of about 15 species ranging naturally from the Southeastern U.S. to Argentina, with some escaped in the Old World. The original native U.S. representation is a messy question beyond the scope today. Some of the species can be tough to distinguish.

Any fool can distinguish *Richardia grandiflora* at 70 mph in the highway median. Seems like cars, lawn mowers, and Global Warming might be expanding its range northward, at least as far as arctic Gainesville, and motivated searchers could probably pinpoint more-northerly patches.

How does one pretty weed take over vast areas of lightly maintained turf? I have no single answer, but here is a bundle of silly notions: 1. The Coffee Family is a talented weed family. 2. The mat sprawls low. I dug one up this morning. The underground rhizome bears roots all over itself, and it sprouts, sprouts, and sprouts near or even below the ground surface. Mowing clearly prompts branching from way down low. 3. The weed is mighty drought-tolerant, happy on sterile soils, and probably nematode-proof (just guessing based on a related species). 4. Each fruit splits into a variable number of bumpy little "seeds." The "seed" production of a single patch is infinite, and all those little crumbs build up a seedbank. 5. And the big question, are Richardias alleleopathic? That is, do they make natural herbicides to suppress competition? I do not know. They look like it.

Mexican-Clover has opposite leaves, and between their bases is the hallmark of the Coffee Family, an "interpetiolar" (between the petioles) stipule. The stipule is fringed on top, and basally forms a cup around the node where new buds form. Although often in the Coffee Family the stipule functions to draw symbiotic ants, or to protect the terminal bud, my guess is that in Mexican-Clover the stipule catches water and coddles the sprouting buds nestled like baby kangaroos in the stipular pouch. The stipule is fringed on top, and encases the lateral buds (future branches). Rising at 45 degrees on each side are the petioles (leaf stalks).

The fairy cup flowers look like classic butterfly-pollinated blossoms, and butterflies visit along with bees and other insects. A big patch of MC can be bug-lively. Each flower head is a sponge in a cup, with the maturing fruitlets embedded deep in the moisture. The flowers are packed together tightly with their sepals rising vertically as a collective water trap in the center, reminiscent of some Bromeliad tanks. Bringing a specimen in this morning after a wet night, the flower heads left puddles of water on the microscope stage.

Being a lawn weed, Mexican-Clover raises the boring question, over and over, about "what do you spray on it?" Now please understand, as a pesticideophobic, lunatic fringe nature-nut, this question is not my cup of tea. Yet turf herbicides interest me from the dark side. Noodling around Google reveals many recommendations to use Atrazine to get those ugly Fairy Cups out of your lovely yard.

So now a moment on the Atrazine soapbox. That is bad stuff unless you like deformed amphibians. Atrazine is one of the most-used turf herbicides in the U.S., although alternatives might replace it. Perhaps you thought the U.S. had already pretty much eliminated chlorinated pesticides, such as DDT, Chlordane, and Lindane. Well, is an herbicide a pesticide? I'd like to know, because we still have plenty of chlorinated herbicides, the two main examples being lawn poisons we infuse into our personal environments, 2-4-D, and Atrazine. 2,4-D is a chlorinated (auxin) hormone mimic. And Atrazine has a slight molecular similarity to the fertilizer urea. Plants take up Atrazine from the soil as they might take up urea. Where does the rest of the Atrazine go? Atrazine is so water-soluble it contaminates waters worldwide.

And it is implicated ominously in environmental-health issues.

Photos next page: Left, stipule. Right, young fruit segments.





MEXICAN-TEA

Chenopodium ambrosioides

(Dysphania ambrosioides, Teloxys ambrosioides) keen-oh-PODE-ee-um am-broze-ee-OID-ees Chenopodiaceae

Native to: Tropical America, now widespread around the world

Florida abundance and distribution: Common, throughout

Recognition: Weed to 3' tall with irregularly lobed-serrate leaves and inconspicuous small green flowers. Strong "chemical" odor when

crushed

Other: With many historical medicinal uses



NATAL GRASS

Melinis repens (Rhynchelytrum repens) mah-LINE-us REE-pens Poaceae

Native to: Africa

Florida abundance and distribution: Throughout. It grows from erect clumps in open and disturbed areas such as roadsides. Prefers dry conditions and invades scrub areas among other habitats. Germinates under a wide range of temperature conditions with rates controlled by temperature when adequate moisture is available.

Recognition: Showy grass to 3' tall with masses of fluffy pink panicles. Natal grass possesses branching culms that root at the nodes. The flowers are borne in panicles; their color varies from purple to pink with reddish hairs that turn gray with age.

Other: The pollen is a mild allergen. Uses are erosion control, ornamental, forage. www.floridagrasses.org

Contributed by Grace Walton



NETTLES AND TREAD SOFTLY

Stinging Nettles are species of *Urtica* and *Laportea* (Urticaceae) Tread Softly is *Cnidoscolus stimulosus* (Euphorbiaceae) *URR-tah-cah la-PORT-ee-ah nide-OS-cue-lus* stim-you-LOES-us

Native to: All are native to Florida.

Florida abundance and distribution: Within our state, *Laportea* and *Urtica* are nearly confined to North Florida, except that *Urtica* turns up rarely as a weed, and the non-native West Indian Woodnettle *Laportea aestuans* is widespread in South Florida. Tread Softly is by far the most common and troublesome stinging plant in South Florida, on dry sites, scrub or near the sea, often on coastal dunes.

Recognition: All have visible stinging hairs. *Laportea aestuans* has alternate serrate leaves, and tiny green flowers in a panicle. *Cnidoscolus stimulosus* is a perennial or subshrub in dry sand; it has palmately lobed leaves with conspicuous bristles. The flowers are white.

Contributed by: George Rogers

Nettles, Ankle Biters, and Burning Noses

Modified from Treasure Coast Natives

A prominent memory from fooling around the hills of West Virginia as a kid was, "be careful about jumping down into muddy ravines." I can still see in my mind's eye the standard summertime ravine bottom biological community: Jewelweed (*Impatiens capensis*), nettles (species of *Urtica* and/or *Laportea*), and yellowjackets (or some sort of hornet with that general appearance). The yellowjackets were benign, but the nettles would sting the living beejeebers out of exposed epidermis....then you rubbed jewelweed juice on the welts in some vain hope of relief. We called it "the 15-minute itch."

Throughout most of the eastern U.S. the stingers are *Laportea canadensis* and *Urtica dioica* (and other *Urtica* species). *Laportea* has alternate leaves, *Urtica* distinctively has opposite leaves.

Around Palm Beach and Martin counties, *Urtica* and *Laportea* are not common, but they are a little here to punish the unwary. *Laportea* aestuans is probably native to more tropical places, maybe making its way northward aided by Global Warming. *Urtica* chamaedroides (leaves opposite) is scattered around Florida. An *Urtica*, probably this species, inhabits the PBSC plant nursery in Palm Beach Gardens, apparently having hitchhiked on nursery plants. Given the weediness of *Urtica*, there would be no earth-shaking amazement in coming across additional species locally.

What is astounding about *Urtica* and *Laportea* is their vengeful hairs. Plants with toxins are a dime a dozen. Plants with thorns, spines, and prickles are too. But these little stinkers smite their foes with an injection of toxin. The tip of the hair snaps off in your flesh, and movement of the hair squeezes a bulb at the base, squirting the irritant into the wound. The whole thing looks and works like a turkey baster. The irritating "venom" seems to contain formic acid, as in ant bites.

The plants are not all bad though. Urtica is grown as a green fertilizer.

The small wind-pollinated flowers have a spring-loaded mechanism to toss their pollen onto the breeze. The stamen filaments are bent inward as the flower develops, and when the moment of truth arrives, they pop forth explosively launching the pollen. How the anthers open coordinated with the springing filaments is a mystery of nature.

False-Nettle, *Boehmeria cylindrica* is abundant around our haunts. It looks like *Urtica* but has no stinging hairs. False-Nettle brings us now to a little ethnobotany. Members of the Nettle Family have long strong fibers. Examples include Hemp (*Cannabis*), *Urtica dioica* (which has served as a fiber source), and Ramie, which is *Boehmeria nivea*, an Asian species. *Cannabis* persists to this day where it was grown historically for hemp. Florida was once a major fiber-growing and fiber-research state, and one fiber plant still with us escaped is Ramie. It differs from False Nettle by having the leaf blades white-hairy beneath and branchy (vs. spikelike) flower clusters.

Another locally prominent ankle-stinger, *Cnidoscolus stimulosus*, is sometimes called Tread Softly, Bull Nettle, or Spurge Nettle. Usually in dry sunny sandy habitats, Tread Softly is in the Spurge Family and is related to "Cuban-Spinach" (*Cnidoscolus chayamansa*). Also related to Tread Softly, likewise in the Spurge Family, and scattered in Florida—even if our own immediate counties have few or none—are the Noseburns, species of *Tragia*. They too inject a sting, and the mechanism is extra-special. Contact with their hairs stabs a dagger of calcium oxalate into your soft skin. This is the same stuff that puts the dumb in Dumbcanes, but that's not for today. To sum it up, just watch your step.

Photo on next page of Tread Softly by John Bradford



NUTSEDGES (NUTGRASSES)

Purple Nutsedge is *Cyperus rotundus* Yellow Nutsedge is *Cyperus esculentus* sigh-PEAR-us row-TON-dus ess-cue-LENT-us Cyperaceae

Native to: Both are Old World species.

Florida abundance and distribution: Both are throughout the state, abundant in places, sometimes aggressive. *Cyperus rotundus* is regarded as "the world's worst weed."

Recognition: Cyperus esculentus and C. rotundus differ from the somewhat similar C. polystachyos by having 3 (vs. 2) stigmas. and the spikes spaced out along a larger axis (vs. clustered tightly). The long straight spikes are yellow-brown in C. esculentus and reddish in C. rotundus. Both are rhizomatous and may form tubers. See www.floridagrasses.org

Contributed by: George Rogers

Photos. Left: C. rotundus. Right: C. esculentus







Oakleaf Fleabane

Erigeron quercifolius err-IJ-er-on kewr-seh-FOAL-ee-us Asteraceae

Native to: Florida native

Florida abundance and distribution: Throughout most of Florida. There are additional *Erigeron* species in Florida.

Recognition: Can be up to 3 feet tall, fuzzy, with variously lobed leaves. The flower head has numerous delicate white rays around a yellow disk.

Contributed by Mike Derer



OLD WORLD DIAMOND FLOWER

Oldenlandia corymbosa (Hedyotis corymbosa) old-en-LAND-ee-ah core-um-BOSE-ah Rubiaceae

Native to: Old World Tropics

Abundance and distribution in Florida: Throughout and occasional, usually in turf.

Recognition: Small sprawling weed with narrow opposite leaves having a stipule between the bases. Flower tiny, white (or pale pink). Fruit a tiny woody capsule.

OXALIS, SOURGRASS

Oxalis corniculata
OX-ah-lus corn-ick-you-LAY-tah
Oxalidaceae

Native to: Eastern and central United States. Widespread worldwide

Florida abundance and distribution: Throughout Florida

Habitats: Yards, gardens, turf, landscaped areas, fields, agricultural crops, and nurseries.

Reproduction: It reproduces by seeds and by creeping aboveground horizontal stems that root at nodes. When seeds mature, capsules open explosively, often spreading seeds 10 feet or more. The plants can form asexual bulbils at the base.

Recognition: This aggressively spreading low-growing perennial broadleaf plant has shamrock-like leaves (resembling a clover shape). Delicate-appearing. The leaflets have notched tips. Flowers are present almost year-round. Flowers yellow. Fruits consist of narrow green cylindrical capsules. Seeds are egg shaped, flat, brown, and have transverse ridges. The leaves differ from Clover or *Desmodium* leaves by being deeply notched at the tips of the leaflets, which hang limp and flaccid at night, and can be recognized by their sharp acid flavor.

Oxalis debilis has pinkish flowers.

Contributed by Grace Walton

Left-hand photo: Oxalis corniculata. Right-hand photo: O. debilis (by John Bradford)







PARA GRASS

Urochloa mutica

your-OCK-low-ah (or your-oh-CLOE-ah) MUTE-ah-cah Poaceae

Native to: South America

Florida abundance and distribution: Central and southern Peninsula. In ditches and moist habitats, often forming massive stands.

Recognition: Large coarse space-filling grass of wet areas, notably pubescent, especially on the leaf sheaths. Inflorescence branches straight and jutting out almost at right angles.



PENNSYLVANIA BITTERCRESS

Cardamine pensylvanica car-DAM-ah-knee pen-sill-VAN-ah-cah Brassicaceae (Cruciferae)

Native to: Widespread and presumably native weed

Florida abundance and distribution: Through the state in moist places, a winter weed

Recognition: Erect weed with alternate irregularly pinnately lobed or pinnately compound leaves, the terminal leaflet as long as or longer than the others, with 3 lobes. Flowers white with 4 petals. Fruits long slender pods called silicles.

Other: The plant contains glucosinolates. When crushed the plant parts give off a "horseradish" odor.

Contributed by June Wilkinson





PEPPERGRASS

Lepidium virginicum lep-ID-ee-um vir-GIN-ah-kum Brassicaceae

Native to: North America and Mesoamerica

Florida abundance and distribution: Throughout Florida in disturbed areas

Recognition: Rosette-forming plant to 1.5' tall. Leaves with odor when crushed, alternate, irregularly serrate, tapered basally. Tiny white flowers with 4 petals and 6 stamens in racemes. Fruits small disk-shaped pods (silicles) a fraction of an inch in diameter.

Contributed by June Wilkinson



PLANTAIN

Plantago major (Broadleaf Plantain) Plantago virginica (Virginia Plantain) plan-TAY-go MAY-jer and ver-GIN-ah-cah Plantaginaceae

Native to: Virginia Plantain is native. Broadleaf Plantain is Eurasian.

Florida abundance and distribution: Both occur throughout most of Florida in waste, disturbed, and compacted soils.

Recognition: Both species form rosettes, with a narrow green flowering wand resembling a 4th of July sparkler rising 4" to a foot. Broadleaf Plantain has leaves 2"-9" long and over half as wide. Each leaf has 5-9 parallel veins. Virginia Plantain differs by having the leaves tapered to the base not forming a petiole, and by having serrate (vs. entire) leaf margins. There are additional *Plantago* species in Florida.

Other: Broadleaf Plantain has tender young leaves useful in salads. *Plantago major* has been used to heal wounds and is a blood coagulant. Leaves were applied to battlefield wounds, accounting for the name "Soldiers Herb."

Contributed by William Mullarkey

Photo P. virginica, by John Bradford

POKEWEED

Phytolacca americana fight-oh-LAK-ah ah-mer-ah-CANE-ah Phytolaccaceae

Native to: Lower 48 states and Canada

Florida abundance and distribution: Common throughout

Recognition: Perennial herb that can reach up to 10' in height and often has a purple stem. The small round white flowers are in erect (to dangling) racemes; and the berries are a deep purple to black.

Other: Despite historical uses fully cooked as an "edible" green, this species is deadly poisonous. Children have died from ingesting the berries. Mistaken for root crops, the roots have killed persons who have eaten the thick roots that resemble parsnips. Merely touching the plant can cause an extreme immune-system response due to highly bioactive "pokeweed mitogens."





POUZOLZIA BUSH

Pouzolzia zeylanica pooh-ZOLZ-ee-ah zay-LAN-ah-cah Urticaceae

Native to: Asia

Florida abundance and distribution: Roadsides, old fields, waste places, and disturbed areas in the Peninsula.

Recognition: Fuzzy weed 3–5' feet tall with alternate (or opposite) leaves. Leaf blades ovate. White flowers, tiny and knob-like in leaf axils.

Other: Highly invasive. Spreads by seed and has an extensive root system. When attempting to rid area of *P. zeylanica*, tuber-like root systems will continue to spread and send up new stems.

Contributed by Nathan Hendry



PURPLE PIGWEED

Amaranthus blitum am-ah-RAN-thus BLIGHT-um Amaranthaceae

Native to: Mediterranean Region

Florida abundance and distribution: Throughout

Recognition: Annual herb with trailing stems 1'-2' long, and more or less oval leaves having distinctive notched tips, on long petioles. The numerous green flowers clustered in the angles between leaf and stem and are unisexual, without petals. The female flower develops into a juicy, crimson fruit containing a single seed.

Potentially confused species: Spiny Amaranth (*Amaranthus spinosus*) has thorns, and the leaf tips are not indented; its leaf blades have light-colored markings. Slim Amaranth (*A. hybridus*) has pointy leaves.

 $\begin{tabular}{ll} \textbf{Other}: & Commonly called Strawberry Blite or Purple Amaranth. \\ \end{tabular}$

Contributed by Grace Walton

PURPLE THISTLE

Cirsium horridulum SIR-see-um hor-ID-you-lum Asteraceae

Native to: Maine south into Florida and west to Texas. Also found in the West Indies, Mexico and Central America.

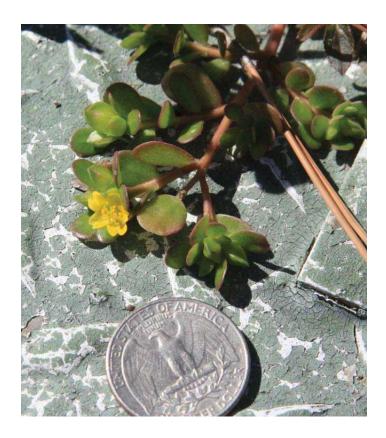
Florida abundance and distribution: This is a frequent native weed of pinelands and prairies. It is often found along the edges of marshes and is typical in overgrazed pastures, and as a roadside weed. Grown in full sun exposure, drought-tolerant when established, low salt water tolerance. Soils from moist, well-drained to moderately well-drained sandy or limestone soils, without humus.

Recognition: Stem 1'-5' tall, with alternate leaf arrangement. The leaves are spiny, 6"-10" long, lanceolate, pinnately lobed, stalkless and clasping the stem, with spiny margins and tips. The basal rosette is broader than tall. Flowers in large variably colored heads (2"-3" diameter) including pale pink, rose/mauve, pale yellow, purple, cream/tan. It blooms all year long, mostly spring-fall. The flower heads are surrounded by distinctive pinnately lobed spine-tipped bracts.

Other: Also known as Yellow Thistle or Spiny Thistle. The name "horridulum" refers to the very prickly leaves. This is a major attractor of insect pollinators (butterflies bees, wasps and/or birds). This plant is a larval host plant and a nectar plant. The flowering heads are often torn apart by beetles. Birds help spread the seeds.

Contributed by Grace Walton and William Mullarkey





PURSLANE

Portulaca oleracea port-you-LACK-ah ole-er-ACE-ee-ah Portulacaceae

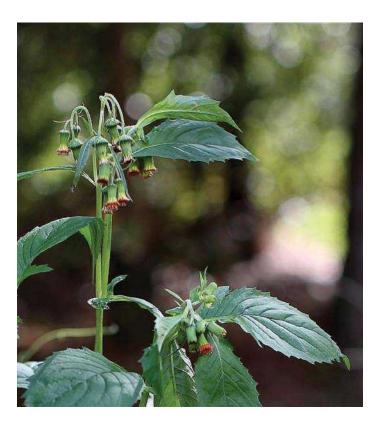
Native to: Old World? Widespread for centuries, and of unclear origins.

Florida abundance and distribution: Throughout Florida as a weed in lawns and along roadsides.

Recognition: Succulent annual with thick obovate entire ½ inch to 1 inch long leaves. Flowers small, yellow. Fruit opening into a tiny "bowl" containing black seeds.

Also known as: Verdolaga, Little Hogweed, and Pusley

Contributed by Ginelle Monico



RAGLEAF

Crassocephalum crepidioides crass-oh-CEPH-ah-lum kre-id-ee-OID-eez Asteraceae

Native to: Africa

Florida abundance and distribution: Miami-Dade, Broward, Palm Beach, Martin counties. Seems to prefer moist places.

Recognition: Reminiscent of Burnweed but leaf lacerations shallower, and flower heads with purplish (vs. yellow-green) florets.

Contributed by George Rogers

Photo by john Bradford

RAGWEED

Ambrosia artemisiifolia am-BROZE-ee-ah art-eh-miz-eh-FOAL-ee-ah Asteraceae

Native to: Florida native

Florida abundance and distribution: Common throughout

Recognition: Plants to 4' tall; leaves opposite, deeply pinnately lobed (to essentially compound), the leaflets lobed; flower heads green and inconspicuous in dense clusters.

Other: Famous (and debatable) culprit in hay fever.



More on Ragweed...

From Treasure Coast Natives

Isn't ambrosia food of the gods, incarnate here on earth as that marshmallow-coconut-jello salad? What was Linnaeus thinking when he named Ragweed that!?

It's not exactly divine, but Ragweed is a native weed distributed, get this (!) from Alaska to Florida, and from there globally as an invasive exotic. It loves disturbance. Have you ever seen how Ragweed monopolizes freshly excavated dirt? Among other adaptations, the seeds (achenes) are tiny burrs no doubt carried by anything that moves. The seeds accumulate in the soil seed bank with varied germination times. Some sprout lickety-split, others slumber for decades waiting for that road grader. John and George this week hiked the Cypress Creek Natural Area near Jupiter Farms and, after passing by all the photogenic wildflowers, focused on the dominant species. The spoil banks along the graded road are two solid ribbons of Ragweed.

In a fun little book, My Weeds, garden writer Sara Stein described a classroom activity called Magic Dirt, where the children go outside and fill a flowerpot with nice "clean" soil, and place their pot on the classroom windowsill to witness awakening weeds. I LIKE it! The Cypress Creek road banks are Magic Dirt on a macro-scale. How long have some of those seeds slept in the soil? Perhaps their parents caused sneezing at the Battle(s) of the Loxahatchee on more or less that ground in 1838.

That's the thing we all know about Ragweed, Gesundheit! The plant releases pollen like a fiend. Such wanton wind pollination is unusual in the mostly insect-pollinated Aster Family.

Ragweed shuns insect pollinators, nectar, and perfumed scents. It scorned Brooks Brothers and put on torn blue jeans, and chose a different path: wind pollination. It thinks it is a grass.

The small Ragweed flower heads look like single flowers, and are arranged in catkins (linear clusters), as in many wind-pollinated plants. The pollen-producing ("male") flowers are separate from the seed-making ("female") flowers on the same plant. (Yes, self-pollination can occur on one plant; that way, a single individual can pioneer a whole new population.)

The female flowers are little more than an ovary with two big stigmas jutting out like antennae to catch wind-borne pollen. The male flowers are nothing more than pollen bags.

And that is why Ragweed is so sneezy...it lives to pollute the air with pollen. I've read that one plant can generate a billion grains.

And why is air-borne pollen so allergenic? Did you ever wonder how a flower knows which pollen to let fertilize its seeds, and which to thwart? I mean, a female cat knows a male cat, and a female turtle probably knows a male turtle. But flowers are different. The stigma (pollen-receptive surface) has built-in pollen recognition ability. A pollen grain landing on a stigma can release proteins that ask the stigma, "am I on the right stigma"? The stigma can then allow the pollen to perform its function, or kill it. When pollen catches in our moist sinuses, it releases its recognition proteins and asks, "am I on a stigma?" Our immune system recognizes that foreign protein as an antigen.







Photos: Previous page, bottom left, ragweed by John Bradford, bottom right, female flowers of A. hispida by Jim Conrad (permitted use). Above, male flower heads by John Bradford.



RICEFIELD FLATSEDGE

Cyperus iria

sigh-PEAR-us (sometimes pronounced SIPE-ah-rus) EAR-ee-ah Cyperaceae

Native to: Eurasia. Widely naturalized

Florida abundance and distribution: Occasional throughout Florida in moist or wet disturbed sites.

Recognition: The tiny scales that cover the seeds are cupped and give the spikelet a beaded look. The inflorescences look more irregular and messy and less flattened than most *Cyperus* species.

Other: An important weed of rice in Asia. Recent systems for increasing rice production and decreasing costs involve reduced water levels that have the side effect of more problems with weeds. Contributed by David Black, Ph.D.



ROSARY PEA Precatory Bean

Abrus precatorius AY-bus prek-uh-TOR-ee-us Fabaceae

Native to: India and Tropical Asia

Florida abundance and distribution: Introduced to Florida and abundant.

Recognition: Climbing vine. Pinnately compound leaves with narrow oblong leaflets. Flowers rose-violet and pealike; seeds glossy red, black at the base; pods 1.5" long and oblong.

Other: Seeds are potentially fatal if ingested. The seeds are used to make Rosary Beads and necklaces.

Contributed by Andrea Schechter and Mike Derer

RUST WEED

Polypremum procumbens polly-PREEM-um pro-COME-benz Loganiaceae

Native to: Florida native

Florida abundance and distribution: Throughout on sunny sand

Recognition: Small clumping weed with opposite bristly needle-shaped leaves, often becoming rust-colored. Flowers tiny and inconspicuous, white.



SAND MATS

Chamaesyce species kam-eh-SIGH-see Euphorbiaceae

Native to: Commonly encountered species are native to Florida. (Chamaesyce lasiocarpa and C. mendezii are introduced.)

Florida abundance and distribution: Species of this genus are abundant throughout. Florida is home to about 24 species.

Recognition: Members of *Chamaesyce* are sprawling mat-formers or erect subshrubs. Sap milky. Leaves opposite; flowers small and inconspicuous, with the 3-lobate ovary characteristic of the Euphorbiaceae. This key (with data from R. Wunderlin and B. Hansen, "Guide to the Vascular Plants of Florida" 2nd ed.) will help with species abundant in South Florida:

- 1. Fruits hairless ... 2
- 1. Fruits pubescent...6

FRUITS HAIRLESS

- 2. "Flowers" (cyathia) clustered or in branched inflorescences....3
- 2. "Flowers" solitary or in unbranched clusters at nodes...4
- 3. Stipule much longer than wide...C. hypericifolia
- 3. Stipule mostly shorter than wide...C. hyssopifolia (Plants stand up)
- 4. Leaves with a red rim...C. cumulicola (Sand dunes, coastal scrub)
- 4. Leaves not rimed in red...5
- 5. Stipules easy to see (1 mm long, white); upright subshrub...C. mesembrianthemifolia (Dunes)
- 5. Stipules inconspicuous...C. blodgettii

FRUITS HAIRY

- 6. Fruits hairy only at the corners...7
- 6. Fruits hairy all over...8
- 7. Leaves light green...C. mendezii (Introduced from Mexico)
- 7. Leaves dark green...C. prostrata
- 8. "Flowers" clustered or in branched inflorescence...9
- 8. "Flowers" solitary or in unbranched clusters at nodes...10
- 9. Gland appendages absent; inflorescences all at branch tips...C. ophthalmica
- 9. Gland appendages present; some inflorescences at nodes...C. hirta (Strongly hairy, having short white hairs and longer yellowish hairs with dark and light markings; leaves often reddish)
- 10. Styles nail-shaped; foliage sometimes with a red spot...C. maculata (Sidewalk crack mat weed)
- 10. Styles not swollen toward the tip; leaf not spotted...C. thymifolia





Chamaesyce hirta (top) and C. hyssopifolia (bottom)

Sandspur

Cenchrus spinifex SEN-krus SPINE-ah-fex Poaceae

Native to: United States

Florida abundance and distribution: Tufts or dense mats and best adapted to dry sandy and sandy loam soils, also on heavier soils. The grass is very adapted to old fields, waste places and sandy sites. There are several additional *Cenchrus* species in Florida. Consult www. floridagrasses.org.

Recognition: This Sandspur is a warm season annual, and sometimes a short-lived perennial to 2' tall, sometimes with runners. The leaf blade is 2"-6" long and flat. The sheath is flat and hairy along the margins. The raceme seedhead has 6-20 spiny burrs covered with fine hairs.

Contributed by Janel Schafer



SHOWY RATTLEBOX

Crotalaria spectabilis kroh-tuh-LARE-ee-ah speck-TAB-ah-liss Fabaceae

Native to: Asia

Florida abundance and distribution: Naturalized and distributed throughout Florida and the Southern United States, Hawaii and Puerto Rico.

Recognition: Annual 0.6-1.5 m tall with a single ribbed green to purple stem. Leaves alternate and simple, oblanceolate to elliptical and pubescent, green to yellow-green in color. Petiole approx. 2.8 cm long, the stipules ovate-triangular. Having about 20-30 large showy flowers in terminal racemes. Petals yellow with purplish-red veins, the sepals green and smooth. Fruit oblong, inflated, black to brown, approx. 3-5 cm long and smooth, containing > 20 seeds. As the fruit matures, the seeds break loose inside and "rattle," hence the name Rattlebox.

Potentially confused species: Several species of Crotalaria live in Florida. This is the only large species with simple (vs. trifoliate) leaves.

Other: Good nitrogen fixation. It is toxic to certain animals, especially the seeds. Used as a green manure crop.

Contributed by Andrea Schechter







SMOOTH RATTLEBOX

Crotalaria pallida kroh-tuh-LARE-ee-ah PAL-lid-duh Fabaceae (Leguminosae)

Native to: Africa

Florida abundance and distribution: Naturalized and distributed throughout Florida, mostly in the Peninsula.

Recognition: Alternate, compound, trifoliate leaves, the leaflets oblong to elliptic, the center leaflet larger than lateral leaflets; leaflet margins entire and often ending in sharp point. Stalks ribbed and pubescent; petioles 2-4 cm and very pubescent. About 10-40 yellow flowers with reddish-brown streaks (veins) atop terminal racemes, the bracts linear. Wings oblong, the banner rounded, the keel curved, all pilose. Pod approx 3.5-3.8 cm long, oblong, inflated, with a groove on one side and pubescent, containing 20-30 seeds. As the fruit matures, the seeds break loose in the pod and "rattle."

Potentially confused species: There are multiple species of *Crotalaria* in Florida both native and non-native. This species has characteristically trifoliate leaves with the leaflets more or less elliptic. Showy Rattlebox has simple leaves. *Crotalaria lanceolata* has more or less linear leaflets.

Other: Good nitrogen fixation. It is toxic to livestock, especially ingesting the seeds.

Contributed by Andrea Schechter



SMUT GRASS

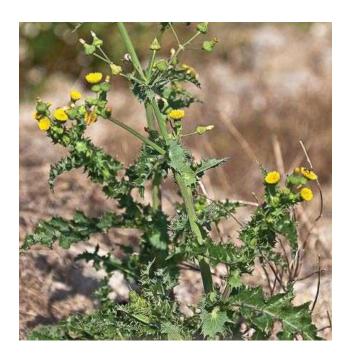
Sporobolus indicus spore-OB-ah-lus IND-ah-cus Poaceae

Native to: Widespread in tropical areas with exact origins unclear, not a Florida native

Florida abundance and distribution: Throughout, common in disturbed sandy places

Recognition: Tall (3') slender grass with very narrow tough leaves and the flowering spike usually narrow and wand-like. See www. floridagrasses.org

Other: Part of a taxonomically confused species complex.



SOW THISTLES

Sonchus oleraceus (Common Sow Thistle) Sonchus asper (Spiny Sow Thistle) SON-kus ASS-per ohl-er-ACE-ee-us Asteraceae (Compositae)

Native to: Worldwide weeds. Both species introduced into Florida

Florida abundance and distribution: Common weeds throughout most of the state.

Recognition: Large, fast-growing with spiny irregular leaves often having purple veins, and with yellow flower heads. Milky sap. Note distinctive large auricles (ears) where the leaf joins the stem. The two species are similar. Sonchus asper has the auricle curled and has no transverse ridges on the "seed" (achene). Sonchus oleraceus has the auricle straight or nearly so and has cross-bars on the achene between the ribs.

Contributed by George Rogers

Photo: Sonchus asper by John Bradford



SPINY AMARANTH

Amaranthus spinosus am-ah-RAN-thus spie-NO-sus Amaranthaceae

Native to: Tropical America

Florida abundance and distribution: Throughout, common

Recognition: Leaves alternate, with curving veins, the stem sharply spiny. Flowers tiny, green, congested in spikes.

The similar Slim Amaranth (*Amaranthus hybridus*) has no thorns. See also Purple Amaranth (having notched leaf tips) in this manual.

Contributed by George Rogers

Photo to left: Spiny Amaranth. Photo below Slim Amaranth (by Forest and Kim Starr, permitted use)



Spreading Dayflower Climbing Dayflower

Commelina diffusa kom-uh-LINE-uh deh-FEW-sa Commelinaceae

Native to: Asia

Florida abundance and distribution: Introduced to Florida, Puerto Rico, Virgin Islands and Hawaii. Found in moist and irrigated locations, sometimes aggressive and problematic.

Recognition: A creeping perennial or annual, depending on where it's located with simple, alternate spathelike leaves that are lanceolate to ovate. Flowers blue, ½" wide with 3 sepals, the lower petal usually smaller, three yellow stamens.

Potentially confused species: There are several species of *Commelina* in Florida. *Commelina benghalensis* is larger and broader in leaf size, more pubescent and with red hairs on the leaf sheath. The flowers are bluish to violet with the bottom leaf colorless. It produces subterranean flowers. *Commelina virginica* resembles *C. benghalensis* but the leaves are a little larger and longer, and it has blue flowers; also *C. virginica* is scabrous. *Commelina erecta* (Erect Dayflower) has the third (lower, smaller) petal white.

Other: In China this species is used as a febrifugal and has diuretic effects. Also, the juice of the petals is used in painting.

Contributed by Andrea Schechter





SURINAME SEDGE

Cyperus surinamensis sigh-PAIR-us sir-ah-nam-EN-sis Cyperaceae

Native to: South America

Florida abundance and distribution: Common throughout most of the state

Recognition: Weedy sedge easily recognized by short, stubby clustered spikelets and especially by uniquely scratchy "sandpaper" stem below the inflorescence. Often but not necessarily in moist places.

Contributed by George Rogers



THIN PASPALUM

Paspalum setaceum pass-PAL-lum see-TAY-see-um Poaceae

Native to: Florida native

Florida abundance and distribution: Common throughout most of Florida

Recognition: Perennial in clumps up to 3' tall. Leaf blades broad and slightly wavy, narrowing to a sharp point with stiff hairs along margins. Ligule short and fringed. Inflorescence slender and branching with seeds tightly spaced along undersides of stalks.

Other: Extremely common weed in lawns and along roadsides.

Contributed by Geovany Esteban





THREE FLOWER BEGGARWEED CREEPING TICK TREFOIL

Desmodium triflorum des-MOH-dee-um try-FLOR-um Fabaceae (Leguminosae)

Native to: Old World Tropics

Florida abundance and distribution: Introduced to Florida and distributed from Central to South Florida, also introduced to Louisiana.

Recognition: Perennial forming a much-branched dense creeping mat with trifoliate leaves having obovate to obcordate emarginate leaflets. Terminal leaflet larger than the lateral leaflets. Stipules triangular and pubescent. Flowers 1-3 in leaf axils, pink to bluish to purplish in color. The pod flat, jointed and small. The mature pod or its segments attach to anything that passes by tiny hooked hairs. The entire plant is pubescent.

Potentially confused species: Desmodium incanum (Creeping Beggarweed, Spanish Clover, Tick Trefoil) is erect and much larger; its leaflets are elliptic to oblong, dark green and often with a silver stripe along the center vein. Desmodium tortuosum (Dixie Ticktrefoil, Florida Beggarweed) leaflets are ovate to oblong with flowers bluish-green or pink on a plant rising potentially multiple feet tall (vs. prostrate). Dixie Trefoil has conspicuous stipels (resembling stipules) at the base of the middle leaflet.

Other: The whole plant is used medicinally for inducing sweat and promoting digestion.

Contributed by Andrea Schechter.



THREESEED MERCURIES COPPERLEAFS

Acalypha species ay-call-EYE-pha (ay-CAL-ee-pha) Euphorbiaceae

Native to: Multiple (approx. 8) species in Florida, some native, some introduced weeds, and some cultivated ornamentally and called Copperleaves.

Florida abundance and distribution: Occasional

Recognition: Diverse, the flowers in catkins which may be bushy like a foxtail or thin and open. Flowers separate male and female, the individual flowers small and inconspicuous. Female flowers (and fruits) three-parted and associated with lobed bracts. Leaves stipulate.

Potentially confused species: The related genus Caperonia has similarities but the female flowers have no bracts.

Other: Selected non-native weedy species, all scattered in Florida:

Acalypha alopecuroidea, Foxtail Copperleaf, has the female flowers in a dense bushy foxtail.

Acalypha arvensis, Field Copperleaf, shown below, is similar to the preceding species but has long cilia on the tips of the bracts. Acalypha setosa, Cuban Copperleaf, is unusual. Its female inflorescences are comparatively sparse and do not form a bushy foxtail like the other two species.





TRIDAX, COAT BUTTONS

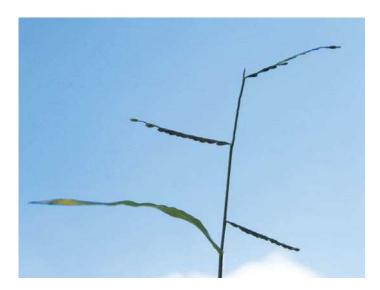
Tridax procumbens
TRY-dax pro-COME-bens
Asteraceae

Native to: Tropical America, now a pantropical weed.

Florida abundance and distribution: Mid to lower Florida in dry areas, roadsides, waste areas, pastures, and crops.

Recognition: Opposite simple pubescent leaves with toothed margins. Flower heads with creamy ray flowers having 3 teeth, and with yellow disk flowers. Achene is hairy. *Galinsoga* is similar. See *Galinsoga* for comparison.

Contributed by June Wilkinson and Carolyn Hendry



TROPICAL SIGNALGRASS

Urochloa distachya your-OCK-low-ah di-STAKE-ee-ah Poaceae

Native to: Tropica Asia and Australasia. Widely naturalized.

Synonym: Urochloa subquadripara

Florida abundance and distribution: Occurs in southern half of the Florida Peninsula.

Recognition: Typically spreading close to the ground with branched stolons. Distinctive look with a few appressed spikelets on short horizontal branches in two ranks. A magnifier shows a ligule of fine hairs and a large, broad, wrap-around first glume with numerous veins. See www.floridagrasses.org.

Potentially confused species: Blanket Crabgrass grows in a similar way, although leaves and their sheathing bases are usually much hairier than those of Topical Signal Grass.

Contributed by David Black, Ph.D.

TORPEDO GRASS

Panicum repens
PAN-ah-cum REE-pens
Poaceae

Native to: Probably native to Old World, now worldwide

Florida abundance and distribution: Extremely abundant, especially in wet habitats, such as shores, ditches, and shallow water. Sometimes on "dry" habitats. One of the worst local wetalnd weeds.

Recognition: Grass to 2.5 feet tall, usually shorter. Strongly rhizomatous, forming dense stands. Leaves strongly 2-ranked. Inflorescence thin and irregular, to about 8 cm tall. Spikelet ca. 2.5 mm.

Potentially confused species: Other local Panicum species. See www.floridagrasses.org





TROPICAL SODA APPLE

Solanum viarum so-LANE-um vie-AIR-um Solanaceae

Native to: South America

Florida abundance and distribution: Common in the peninsula where it can be a serious pest in pastures. Not present in the western panhandle.

Recognition: A large, sprawling, spiny plant with round 1" fruit patterned like watermelon (green and whitish) when young, turning yellow when ripe.

Potentially confused species: The similar native Soda Apple has fruits that turn from green to yellow to bright red without developing the watermelon pattern. It is also weedy, but not as aggressive as tropical soda apple.

Other: Tropical Soda Apple is on the federal noxious weed list. Because it's unpalatable to cattle and produces large quantities of viable seed, it can quickly cover pastures with impenetrable mounds and thickets.

Contributed by David Black, Ph.D.

Foliage and fruit photos by John Bradford





WHISK FERN

Psilotum nudum sy-LOH-tum NEW-doom Psilotaceae

Native to: Florida native

Florida abundance and distribution: Throughout, common in Cabbage Palm boots, and occurs sometimes as weed in flower pots.

Recognition: Terrestrial or epiphytic branching weed up to 2' tall lacking roots and leaves. Stems triangular with small bract-like appendages bearing yellow sporangia.

Other: Whisk Ferns are the least complex of the terrestrial vascular plants and are thought to be one of the most primitive. They are not true ferns.

Contributed by Carrie Black





WATER-LETTUCE

Pistia stratiotes PISS-tea-ah strat-ee-OH-teas Araceae

Native to: Worldwide in warm climates, with nativity unclear.

Florida abundance and distribution: Throughout in lakes, rivers, and canals.

Recognition: Resembles fuzzy lettuce plant. Aquatic herb usually found floating with stolons bearing multiple plants or young plantlets. Roots dangling into the water, bluish or purplish, feathery. Flowers inconspicuous. Leaf blades round, glossy, green, thick, pubescent.

Other: Heavy infestations can cause oxygen depletion and damage to aquatic ecosystems.

Contributed by Sarah Lopinot

Photo by John Bradford



WATER-HYACINTH

Eichhornia crassipes eye-CORN-ee-ah CRASS-ah-peas Pontederiaceae

Native to: South America

Florida abundance and distribution: Chokes bodies of water throughout.

Recognition: Floating, the leaf petioles with a swollen float. Flowers lavender.

Contributed by Sarah Lopinot.

Wedelia

Sphagneticola trilobata (Wedelia trilobata) sfag-net-IK-oh-luh try-lo-BAY-tuh

Asteraceae

Native to: Central and South America

Florida abundance and distribution: Very abundant and can be aggressive invader.

Recognition: Low growing mat, hairy stems. Opposite leaves, rough and hairy, dark green. Yellow flowers, daisylike.

Contributed by Geovany Esteban



Wild Bushbean Phasey Bean

Macroptilium lathyroides mak-rop-TIL-ee-um lay-thy-ROY-deez Fabaceae (Leguminosae)

Native to: Central America, South American, West Indies, Puerto Rico and the Virgin Islands.

Florida abundance and distribution: Introduced to Florida and found from Central to South Florida, Louisiana, Georgia and South Carolina.

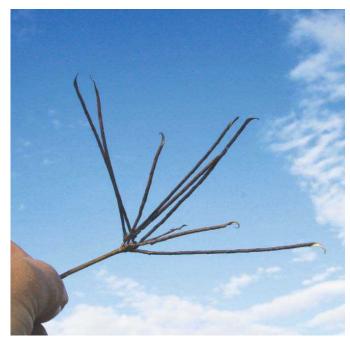
Recognition: Prostrate or twining depending on sun or shade, can be up to 1.5 m tall, annual or biennial, lower portion can become woody; stalks and petioles pubescent; stipules lanceolate; leaflets trifoliate, elliptic to ovate-lanceolate. Flowers in pairs in racemes, maroon, or blood-red to red-purple. Wings and keel tinged green, red or white; keel spirally twisted; pods pubescent, linear and twisted.

Potentially confused species: Macroptilium atropurpureum is similar but has black flowers and broader leaves.

Other: Good nitrogen fixation, suspected of causing poisoning with horses, and alternative host for Silverleaf Whitefly.

Contributed by Andrea Schechter





WILD POINSETTIA FIRE-ON-THE-MOUN-

TAIN

Poinsettia cyathophora poin-SET-ee-ah sigh-ayth-OFF-or-ah Euphorbiaceae

Native to: Florida native

Florida abundance and distribution: Throughout

Recognition: Can grow into a low subshrub to 4' tall with milky sap. Leaves 4"-7" long with wavy edges. Top leaves just below flowers with a splash of red.

Potentially confused species: Fiddler's Spurge (P.

heterophylla) has the topmost leaves green and white, with no



WIRE WEED

Sida ulmifolia SIGH-da ulm-ah-FOAL-ee-ah

Native to: Florida native

Malvaceae

Florida abundance and distribution: Often on sandy soil

Recognition: To 2' tall. Lower portions woody, with strong roots difficult to pull. Leaves dark green, serrate. Flower yellow to creamy, resembling a small *Hibiscus* flower.

Potentially confused species: Similar to the likewise common and weedy *Sida rhombifolia* (Indian Hemp), which differs by having the flowers or fruits on long wirelike stalks instead of nestled among the leaves. *Sida cordifolia* (Heartleaf Sida) has velvety leaves.

Contributed by Grace Walton



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