

THE WONDERFUL WORLD OF WEEDS

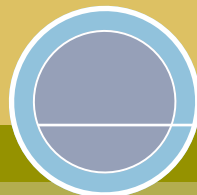
Over 24 common weeds found in our gardens and landscapes



Marg Stewart



Jenny Gillis



December, 2013

*The Foundation for the Gator Nation...
An equal opportunity institution*

April, 2011

Common Venus' Looking-glass
Triodanis perfoliata or *Specularia perfoliata*



Winter annual or perennial with erect to ascending stems.

Stems usually freely branched at base.

Leaves alternate, ovate to heart shaped and clasp to stem.

Leaf margins have fine teeth.

Tiny Bluish-violet tubular flowers with 5 petals in the leaf axils.

Reproduces by seed.

Found throughout US, except Rocky Mtns.

from: "Weeds of Southern Turfgrasses" a UF, IFAS Extension publication

<http://ifasbooks.ifas.ufl.edu/p-150-weeds-of-southern-turfgrasses.aspx>

More info and pictures:

http://www.ppws.vt.edu/scott/weed_id/tjdpe.htm

<http://www.illinoiswildflowers.info/prairie/plantx/venusx.htm>



May, 2011

Toadflax or Old field Toadflax

Linaria canadensis or *Nuttallanthus canadensis*

What's with all the pretty flowers now popping up in pastures, roadsides... and maybe your yard?
It may be **toadflax** or **Oldfield Toadflax** (*Linaria canadensis*) or (*Nuttallanthus canadensis*)

About a foot tall when in bloom, with a flat clump of leaves that would hardly ever be noticed, in the cool times of late winter or early spring & summer, it shoots up a foot tall spike that is topped by a dozen or so pink to lavender to blue flowers. A careful look at the individual flowers shows a shape that looks like a snapdragon. Look in roadside ditches, pastures or vacant lots that have not been mowed.

Blue toadflax has small flowers on top of slender stalks. The small flowers and wispy foliage make the plant easy to overlook, but it can be quite abundant in its preferred habitat of sunny, sandy areas. In early summer, many sandy roadsides have a haze of blue from blue toadflax in bloom.

- * Family: Figwort (Scrophulariaceae) • Habitat: dry sandy or rocky soil, abandoned fields, roadsides • Height: 6-24 inches • Flower size: 1/4 to 1/2 inch long • Flower color: pale blue-purple • Flowering time: April to September • Origin: native
- * *Linaria canadensis* grows on open disturbed sand until more permanent plants get established. Typically it will be found sharing this seemingly hostile environment with another diminutive native plant, the dwarf dandelion *rigia virginica*.

Like many plants that evolved to exploit disturbed areas, these plants produce seeds that can be carried for long distances on the wind. But it must be remembered that these are native plants, and are integral parts of the functioning of the sand prairie ecosystem.

Winter annual or biennial; when biennial often forming a dense basal cluster of prostrate stems.

Leaves: linear, those in the basal cluster opposite or whorled; those of the main erect stem usually alternate.

Flowers: blue to purple . Found throughout the US, southern Canada, Mexico and South America

from: "Weeds of Southern Turfgrasses" a UF, IFAS Extension publication

<http://ifasbooks.ifas.ufl.edu/p-150-weeds-of-southern-turfgrasses.aspx>

and

<http://www.ct-botanical-society.org/galleries/nuttallanthuscana.html>

http://www.missouriplants.com/Bluealt/Linaria_canadensis_page.html



June, 2011
Dollarweed
Hydrocotyle (spp.)

Everyone probably knows this weed..but it's showing up everywhere right now - especially in St Augustine grass!

So here are some interesting facts...and some information about one of our most prevalent lawn weeds.

The Dollar weed name: Most sites say the name is because this plant resembles a silver dollar but:

"Marsh Pennywort is also referred to as "Dollarweed" by the agricultural chemical industry. The Dollarweed moniker is something of a "board room joke" about the inexhaustible market for an herbicide designed to temporarily eradicate plants which will return nevertheless. Product use recommendations for chemical control of Dollarweed generally call for an eternal program of applications at least once or twice a year." from: http://www.floridaplants.com/land_lawns.htm

Dollarweed is Edible! Who knew?? *note: do not eat if treated with herbicide, pesticide or pet waste!!!*

"This lawn weed is an ideal substitute for curly parsley in your favorite recipes. It is quite nutritious, containing magnesium, potassium, phosphorous, iron, copper, sulfur and vitamins A, B1 and C. When harvesting dollar weed, select the young, tender leaves and avoid the tougher, mature leaves. You can also use the dollar weed flower in salads, or as a garnish."

from: <http://bradford.ifas.ufl.edu/documents/CuttingEdgeSeptember09.pdf>

Here's an interesting recipe:

Hot Pepper and Dollarweed Salsa note: You can use habenero or other hot peppers.

8 hot peppers

3 large onions

2 medium bell peppers

1 large can crushed tomatoes

1/4 cup lime juice

6 tbsp. white vinegar

1/2 cup finely chopped dollarweed (or cilantro)

1 tbsp. sea salt

1 tsp. minced garlic

Chop hot peppers, onions and bell peppers mix with tomatoes and remaining ingredients. Bring to a boil. Cover and simmer over low heat for 5 minutes or until desired consistency.

Ladle hot salsa into hot jars, wipe rims, attach lids and rings. Process in boiling water bath. Approximately 15 minutes to 45 minutes until air tight. Makes approximately 10 pints.

May, 2011 continued

Modified recipe from St.Johns County horticulturalist agent, Keith Fuller. http://staugustine.com/stories/080207/food_4732903.shtml

The presence of dollarweed, also known as pennywort, indicates too much water!!

TO identify and control Dollarweed in your lawn:

<http://edis.ifas.ufl.edu/ep389>

<http://www.clemson.edu/extension/hgic/pests/weeds/hgic2317.html>

irrigation and dollarweed:

<http://grove.ufl.edu/~turf/weeds/dollarweed.html>



Florida Pusley



Brazil Pusley



Largeflower Pusley

July, 2011 Pusley

Three Pusleys found in our area, look very similar to each other and can be growing side-by-side in lawns, roadsides and disturbed areas. Lawns that are thinning or under water stress provide all the invitation these plants need to become at home in your lawn...and they can be difficult to remove. Regular irrigation to prevent wilting can allow your lawn to compete with the Pusleys.

Florida Pusley aka Rough Mexican Clover, is a non-native weed with a broad distribution in the southeast. It is a low growing and spreading summer annual with branched hairy stems. Regular irrigation to prevent wilting of grass plants can allow a lawn to better compete with this weed.

Brazil Pusley can be an annual or perennial. This plant occurs throughout the state on disturbed sites, roadsides, pastures and lawns. It grows in the southeast from southern Texas along the coastal plain to southeast Virginia.

Largeflower Pusley aka Largeflower Mexican Clover is not of the clover family at all. However, the spent flower heads remind one of red clover seed heads. This native of South America is a widespread tropical weed in Florida, mostly found in the central and southern peninsula. It is found here occasionally.

For more detailed information on characteristics and control methods check out the links below.

<http://collier.ifas.ufl.edu/CommHort/CommHortPubs/TurfDrought.pdf>

<http://edis.ifas.ufl.edu/fw034>

http://www.allspc.com/broadleaf_floridapusley.htm

<http://edis.ifas.ufl.edu/in846>

<http://edis.ifas.ufl.edu/fw033>

<http://edis.ifas.ufl.edu/pdffiles/FW/FW03300.pdf>

<http://www.naplesnews.com/news/2009/dec/03/take-care-if-you-find-mexican-clover-your-grass/>

http://lee.ifas.ufl.edu/Hort/Videos_and_Powerpoints/Richardia_grandiflora.pdf



August, 2011

Common Ragweed
Ambrosia artemisiifolia



During late summer, one of the most colorful plants we see blooming in roadside ditches is goldenrod (*Solidago* sp.), and since hay fever symptoms seem to be worse when it is in bloom, it is often blamed for causing hay fever. However, the true culprit is ragweed.

Both plants begin blooming in summer, but are actually quite different: Goldenrod has masses of bright golden flowers on single-stemmed plants, and has relatively large, heavy pollen grains that are intended for bees, butterflies, and other pollinators. Common ragweed is an erect, branching summer annual up to 7 ft tall with greenish-yellow flowers that produce tons of pollen, carried by the wind. Ragweed flowers are not showy which means these plants are often easier to recognize by their purplish hairy stems and smooth, but deeply divided leaves. Each Ragweed plant can produce up to 62,000 seeds which can remain viable for many years in undisturbed soil. Dormant ragweed seeds need cold temperatures to germinate and grow best in spring when soil temperatures are 50 to 80° F. Above 86° F germination stops and seeds go dormant until the following winter. Since 75% of all Americans who are allergic to pollen-producing plants are also allergic to ragweed, removal of this pest plant is important.

Homeowners can control this shallow-rooted plant best by hand-pulling, hoeing, or mowing while plants are still young. This should be done as close as possible to the ground to minimize regrowth. However, mowing plants with mature seeds will likely increase seed dispersal.

Common ragweed can be controlled successfully using broad-leaf herbicides such as glyphosate when weeds are less than 6 inches tall.



September, 2011

Common Beggarticks or Spanish Needles



Spanish Needles and has been called *Bidens leucantha*, *Bidens leucanthema*, *Bidens pilosa*, *Coreopsis leucantha*, *Kerneria pilosa* and several other names. They are also known as, shepherd's needles, butterfly needles, hairy beggarticks, beggar's-ticks, stick-tights, and more.

The name "Beggarticks" refers to the copious, sticky seeds that cling to clothes, fur, and hair, and make this plant a fast-spreading nuisance. The bane of any hiker, *Bidens* is zoochorous, that is, it evolved to hitchhike on the fur of animals (and our socks). In spite of its drawbacks, it is a good plant for a Florida native wildflower garden for one reason: butterflies love it. Some gardeners have claimed that its nectar attracts more butterflies than any other plant species. Zebra Longwings, Gulf Fritillaries, Monarchs, Southern Dogfaces, and several hairstreaks are among the beautiful butterflies that seek out this weedy wildflower.

The dried leaves of various species of *Bidens* have been used as a tobacco substitute, called "Fakahatchee Gold," according to Daniel Austin in *Florida Ethnobotany*. The flowers and tender young leaves of *Bidens alba* can be added to salads, and the more mature leaves can be boiled or steamed as a pot herb. A mild tea can be made from the flowers, which purportedly also make an interesting wine.

Thrives in disturbed areas and thinned lawns. Grows best in partly shaded areas. Leaves are opposite and have long stalks and an odd number of leaflets. Center of the flower (disk) is yellow surrounded by 5 to 9 white ray petals. Produces a skinny, shiny, black, needle-like fruit with 2 barbs on tip that can hang on to clothes, hair, or fur.

Plant Type: annual or perennial which can reach 39 inches tall.

Leaves: 3-9 leaflets, alternate, finely toothed and divided. Hairy on the underside.

Flowers: head to 1" (2.5 cm) wide; rays usually 6-8, surrounding yellow central disk. Blooms appear in early spring and continue into late fall. Sometimes the white rays are absent.

Habitat: Fields, borders and waste places.

Range: Florida and the deep south and in extremely scattered locations north. Generally a tropical species.



October, 2011
Virginia Creeper
Parthenocissus quinquefolia



Is it a beautiful vine with wonderful red fall color and berries that songbirds love or is it a weed? You be the judge!

Virginia creeper is a native, perennial, high climbing or trailing woody vine that reaches up to 90' long. This vine produces many seeds, reseeds itself readily and can grow practically anywhere: from moist shade to dry and open places. As a native plant it has the potential to become invasive and often reproduces into nearby landscapes.

It easily grows in the woods or in your garden.

Virginia creeper is a woody, deciduous vine which can be identified by its compound leaves with five leaflets. This benign relative of the Grape can sometimes masquerade as Poison Ivy. Though its compound leaves usually have 5 leaflets, they may also have 3, or 7. Both plants display red pigments in fall and winter. (Poison Ivy **ALWAYS** has 3 leaflets...*Leaves of 3 let it be!*)

Virginia Creeper has long, green to brown stems and climbs by tendrils with adhesive disks that look like the small suction pads on lizards' feet. If you pull a Virginia creeper vine off a wall, fence, or tree, the adhesive disks and parts of the tendrils remain stuck behind. It climbs by many branched tendrils with these adhesive disks or can cover the ground by taking root. Given enough time it can completely cover walls, fences, small buildings, and trees.

The leaves have five leaflets that spread out like fingers on a hand and are longer than they are wide, 2" to 6" long by 1½" to 3" wide. They turn dark red to purple in the fall. In winter they fall off and sprout again in spring.

The fruit is a round berry, ¼" wide, and is black to dark blue when it ripens between October and December. The outside of the fruit is covered in a white, waxy substance.

Songbirds are the principal consumers of Virginia Creeper fruit but woodpeckers, thrushes, deer, squirrels, and other small animals also eat them. Cattle and deer sometimes browse the foliage which also provides cover for many small birds and mammals.

Virginia creeper is salt tolerant and can be used for watershed protection and erosion control.

The bark was once used medicinally.

October, 2011 continued

Virginia creeper can be espaliered against a wall and provides great visual appeal during winter when the leaves have fallen. While it can be used on buildings or trellises, Virginia creeper should probably not be grown on wood siding. Its tendrils will work themselves between the boards and are difficult to remove. Also the dense foliage will dry out slowly after rain, causing a variety of moisture problems for wood siding.

If you find Virginia Creeper is taking over your landscape, you can cut the vine as close to the ground as possible. Immediately paint a concentrated herbicide (glyphosate or triclopyr: vine & stump killer) on the cut stem.

Another option is to utilize a standard floral water pick with a cap. Fill the water pick with your herbicide, and snap on the cap. Cut the weedy vine, leaving about an eight to ten inch stem coming out of the ground. Jab the water pick into the ground next to the vine stem. Carefully bend the stem over and insert it into the water pick. Allow the vine to take up as much herbicide as it can.

You are unlikely to ever totally eliminate this troublesome vine from your landscape. However, you can keep it from overgrowing everything! You can find more information in the following links.

http://leon.ifas.ufl.edu/News_Columns/2011/060211g-Controlling-Weedy-Vines-Landscape.pdf

http://www.sfrs.ufl.edu/4h/Virginia_creeper/virgrecree.htm

<http://edis.ifas.ufl.edu/fp454>

<http://plants.ifas.ufl.edu/guide/parqui.html>



November, 2011

Wild Grape, Muscadine *Vitis rotundifolia* Michx.



Fall has definitely come to NW Florida! Driving at this time of year the ditches and the wood's edge along the roadsides are brightened with the yellow and gold flowers of Tickseed (*Coreopsis spp.*), Golden Aster (*Chrysopsis spp.*), Silkgrass (*Pityopsis spp.*), Sunflowers (*Helianthus spp.*), and Golden-rods (*Solidago spp.*). Climbing high in the trees a vine of gold and scarlet leaves is adding to the show. This is most likely the native wild grapevine Muscadine. A favorite and important food of our wildlife, wild grape can be a weedy, nuisance vine in our gardens.

Wild grape is also known as muscadine, scuppernong, and southern fox grape, and is valued for its edible, tasty fruit. Wild grape grows from Texas to south Florida, north to Delaware, and west to Missouri.

Muscadine grape (*Vitis rotundifolia* Michx.) is a commonly occurring high-climbing woody vine growing to 60'-100' in the wild.

The grape vines will grow in full sun to partial shade.

The leaves are simple, heart shaped, deciduous, and about 4" by 4". The rounded leaves have coarsely serrate edges and are smooth, dark green above and green tinged yellow, somewhat hairy below. They occur alternately along the stem.

Muscadine grape has inconspicuous yellow-green flowers from April through June.

The fruit is a 1" round berry/grape that ripens between July and September. It is green at first, turns red to purple to black with tan spots when ripe. The berries grow in small clusters of no more than 12 or as single grapes. The skin of the fruit is very thick but separates from the flesh of the fruit easily.

It is a favorite food for birds, white-tailed deer, wild turkey, raccoon, skunk, squirrel, opossum and black bears.

Humans also enjoy the unique fruity flavor of the grapes and make jellies, jams, juices, and wines from the fruit.

Wild grape is prolific because mockingbirds, cardinals, and robins spread the seed to various areas away from the original vine.

Wild Turkey and quail consume fruit that has fallen to the ground.

White-tailed deer readily consume leaves, twigs and the ripe fruit that grows within their reach or have fallen from the vine.

Deer will eat wild grapes no matter where they grow or what variety - in the woods or in your garden!

Commercial production is small, but muscadine grapes are widely grown for home use and local markets in southeastern states.

Native Americans in Florida also made a blue dye from the grapes. Wild grapes have been hybridized and grown since the 1500's. For more information on selection of Muscadine grape varieties and general care please read the University of Florida publication titled "The Muscadine Grape" <http://edis.ifas.ufl.edu/hs100>

"If you want to get rid of the vines, first cut them close to the ground. Immediately paint the stump with glyphosate. The upper portion will die once it is cut. It may take a few days but ultimately the vine will die and then it will be easier to remove from the trees. Reapplication of the herbicide may be necessary for best control." <http://nassau.ifas.ufl.edu/horticulture/questions/other.html>

December, 2011
Dandelion
Taraxacum officinale



The dandelion is often regarded as being nothing except a weed, but it is much more than that. The scientific name of the dandelion is *Taraxacum officinale*. The common name, Dandelion, comes from French "dent de lion", meaning "lion's tooth", and a reference to the jagged-edges of the leaves. Other names a dandelion may be known as are Faceclock and Blow Ball.

In the language of flowers, the easily identified yellow flower means coquetry, flirt, and love's oracle.

Almost everyone has encountered wild dandelion as a weed pest in lawns and gardens throughout Florida and the U. S. It can grow just about anywhere! Many gardeners spend hours trying to eliminate dandelions from their garden, so it sometimes comes as a surprise to find it grown as a crop. In fact it has a long history of culinary and medicinal use.

There are cultivated varieties of this troublesome weed that make excellent cooking greens and salads. The young leaves are rich in vitamins and minerals. Sauté dandelion heads (before they open) in butter, they taste like mushrooms! The roots are used to make a coffee-substitute, and home winemakers use the flowers and the leaves. *Note: do not eat any weed that has been treated with chemicals or fertilizer!* Dandelion is grown in gardens on an infrequent basis, and is produced on a rather large scale by a few commercial growers in Florida. Dandelion seed can be bought from some nurseries, and the selections they offer are likely to be superior to wild dandelions.

DESCRIPTION

Dandelions originated in Europe. It is a cool season perennial that can also reproduce by seeds. Its low spreading, deeply notched leaves form a rosette pattern as they emerge from a weak central tap root. It closely resembles endive in form and in cultural requirements. The hollow flower stalks form a single compound flower of many golden colored florets. Varieties differ in leaf shape, ranging from very curly leaved to broad leaved.

Bear in mind that the deep tap roots are difficult to lift without leaving some root behind, which is why dandelions are so difficult to eradicate. Deadhead before it self-seeds.

edis.ifas.ufl.edu/mv058

<http://www.ndsu.edu/pubweb/chiwonlee/plsc211/newsletter/jstencil.htm>

<http://brevard.ifas.ufl.edu/Horticulture/PDF/MGNewsletter/Dec%2008%20MG%20NL%20for%20emailing%2020web.pdf>

January, 2012

Stinkhorns

Clathrus columnatus



During our cooler winter weather, it is not uncommon to step outside and catch a whiff of something rotten. If your garden is starting to smell like a dirty diaper left in the sun, read on! Chances are it is not coming from the neighbors but rather from a stinkhorn mushroom growing nearby. This stinky fungus appears in many of our landscapes at this time of year.

Stinkhorns frequently bewilder people by popping up in lawns, thrusting their slime-covered tips into the world within a matter of hours. They have been much maligned over the years, probably because--well, because they stink!

A quick search of the Internet reveals that stinkhorn mushrooms are considered an edible delicacy in some cuisines but it would probably be an act of desperation to eat one. There are also reports of a cancer treatment and an arthritis salve produced from these mushrooms. Curiously enough, there's also a jazz band called The Stinkhorns and a children's toy named after the odorous mushroom.

Stinkhorns belong to an order of fungi that include puffballs, earthstars and the bird's nest fungi. All of these have the common feature of producing a sticky ooze with foul odor that attracts flies, ants, and beetles. As the insects walk on the mushrooms and feed on them, the spores from the mushroom stick to the insect who spreads them to other areas.

Before springing up in the garden, stinkhorns grow unobserved in the ground for weeks, months, even years before sending up their reproductive part when conditions are optimal. While underground, stinkhorns live on decaying or decomposing material such as dead wood or leaf matter. The fungi start as white, egg-like structures that are anchored to the soil by a root-like network.

Based on the type of stinkhorn, the fruiting structure (mushroom) will be either column or stalk-like in

shape or globular, lattice-like in shape. Mushrooms vary in color but most are pink to orange.

They range from 2 to a little over 6 inches tall and from one-half to 3 inches wide.

All stinkhorn mushrooms possess foul odors, which attract insects. Stinkhorn fungi do not cause disease, in spite of their occurrence near declining trees and shrubs. Mushrooms and their underground fungus mycelium help break down dead and dying organic matter. This includes dead tree roots, grassy stems, tree leaves and mulch materials. Without this natural decomposition, we would be quickly over crowded by dead plant parts.

Stinkhorns rot wood breaking down organic materials high in cellulose, and helping to return it to the soil. Woody debris left over from hurricanes is potential food for stinkhorns. It loves to grow in wood chips, sawdust, dead roots, stumps and other cellulose materials. The stinkhorn fungus is a decomposer.

Because it helps rot wood, the Stinkhorn fungus is beneficial. More often than not, these mushrooms are found where wood is used as mulch.

Now don't start pulling up all your wood mulch! Even without mulch reports are that there are millions of fungi living in each square foot of soil, and most of the decaying material is there naturally. So if you take out your mulch, it's unlikely you'll get rid of these fungi.

Stinkhorns are more of a nuisance than a pest. Since we can't eliminate them (sorry no chemical control exists), if you find a stinkhorn's non-smelly "egg", you can "pick" them before they sprout. Once sprouted, you can always pick the mushroom and throw it away in a zipped plastic bag so the spores don't spread in the landscape.

The silver lining is that these fungi represent beneficial organisms in the soil profile. They aren't harmful to plants, so in fact, it isn't necessary to remove them. If you can't bring yourself to thank them, at least try to tolerate them.

http://okaloosa.ifas.ufl.edu/pdfs/horticulture/larry_column/2006/Smelly%20mushrooms.pdf http://santarosa.ifas.ufl.edu/documents/lg_jan_feb_2009_LR.pdf http://columbia.ifas.ufl.edu/pdfs/Hort%20Column%202010_04.pdf http://pasco.ifas.ufl.edu/gardening/PDF-stinkhorn_fungi.pdf

February, 2012

The Oxalis Weed Family



Oxalis is a large genus of low-growing herbs that grow along roadsides and in fields throughout the Americas and South Africa. North American species are known as wood sorrels. Like clover, wood sorrels have heart-shaped leaflets in clusters of three, but the leaflets, unlike those of clover, fold lengthwise at night. Small, five-petaled flowers in white, yellow, pink, or red grow singly or in loose clusters decorating wood sorrels. These plants are also known as sourgrass because of their sour-lemony tasting leaves.

Oxalis is an edible wild plant that has been consumed by humans around the world for millennia. A characteristic of the Oxalis family is that plants contain oxalic acid which gives the leaves and flowers a taste which can make them refreshing to chew.

In Dr. James Duke's "Handbook of Edible Weeds," he notes that the Kiowa Indian tribe chewed wood sorrel to alleviate thirst on long trips, that the Potawatomi Indians cooked it with sugar to make a dessert, the Algonquin Indians considered it an aphrodisiac, the Cherokee ate wood sorrel to alleviate mouth sores and sore throats, and the Iroquois ate wood sorrel to help with cramps, fever and nausea. The plants contain oxalic acid which gives the genus its name. Eaten in large amounts these plants may be toxic as oxalic acid can interfere with digestion. <http://uk.ask.com/wiki/Oxalis>

Creeping Wood Sorrel, *Oxalis corniculata* and Southern Yellow Wood Sorrel, *Oxalis stricta*.

The UF/IFAS book *Weeds of Southern Turfgrass* lists several species of Oxalis. Yellow wood sorrel (*O. stricta*) and Creeping sorrel (*O. corniculata*) are most frequent. The small flowers of wood sorrels produce okra-shaped seed pods that actually shoot the seed long distances. Once established, oxalis can be difficult to control. Oxalis can also be a weed present in potted plants and are known to harbor other plant pests – so weedy wood sorrels should be removed from container plants.



Creeping woodsorrel

Oxalis corniculata

A creeping perennial that is typically about 4 inches tall, though stems can grow up to 20 inches. The green or reddish stems are slender and hairy, and stems that trail on the ground will root at stem joints. Leaves are often purplish and are borne alternately along the stem at the end of long stalks (up to 4 inches). Leaves consist of three heart-shaped leaflets with hairy undersides which fold down around the stem at night or when the plant is stressed. One to five bright yellow, five-petaled flowers occur in clusters at the tips of 1-3 inch-long stalks. Flowers are less than 1/2 inch. Seeds germinate at the soil surface whenever temperatures are between 60° and 80°F. Seedlings grow vigorously, and plants can flower and produce immediately viable seed throughout the growing season.

Flowers produce elongated, lantern-shaped seedpods, which are 3/4 inch long, green, hairy and angled. Each seedpod holds 10-50 seeds. As seeds mature flower stalks turn downward, and at maturity, dry pods forcefully discharge the seeds. Seeds are 1/16 inch long, oval, reddish, sticky and ridged widthwise.

Although creeping wood sorrel has a long taproot and spreads by rooting from its stems, it primarily reproduces by seed. Each plant can produce 5,000 seeds! When mature, dry seed pods burst open and the seeds are launched 10 feet or more from the parent plant. Some seeds then adhere to equipment or clothing; others are dispersed by water and birds. Creeping wood sorrel's slender stems and roots break easily and can regenerate from broken parts. It grows in shade or a full sun.

February, 2012 The Oxalis Weed Family *continued*

Creeping wood sorrel is a common weed in nursery stock, so purchasing weed-free plants is an important way to prevent creeping wood sorrel in your landscape.

Mulch, 2 to 3 inches thick, can block the light necessary for creeping wood sorrel seeds to germinate. Hand-pulling young plants can be effective, but older plants that have already set seed should be removed completely after being uprooted. Mowing does not provide good control of creeping wood sorrel, since its prostrate habit allows it to produce seed even when mowed very closely.

Creeping wood sorrel has a sour, citrusy flavor, and native people have eaten creeping wood sorrel both raw and cooked. The boiled plant has also been used to make a yellow dye. In addition, creeping wood sorrel has been used to treat a variety of ailments, including hookworms, cancer, and topical sores. The sour taste of creeping wood sorrel can be attributed to an accumulation of oxalates in its tissues, which can cause potential kidney failure in livestock when eaten in large amounts.

Southern Yellow Wood Sorrel, *Oxalis stricta*.



Yellow wood sorrel (*Oxalis stricta*) is a close cousin of creeping wood sorrel, but is somewhat more upright in habit and does not root from its stems.

Yellow wood sorrel is a common summer perennial/annual in cool-season turf. This delicate

seeming plant forms colonies which arise from slender but tough underground stems (rhizomes). The leaves are most often green, but may also be purplish or brownish red reaching up to 15" in height. Wood sorrel prefers moist soil, and partial shade, but is also commonly found growing through the cracks in sidewalks, alongside trails, in lawns, and in flower beds and gardens.

Wood sorrel starts blooming in mid-spring and continues to produce flowers through mid-fall. They may occur singly or in clusters of up to five flowers. After a short time, the petals wither, and an upright, ridged (five ridges, of course) seed pod develops, half an inch to an inch long, with a short point at the top. Each seed pod is divided into five compartments, each of which may contain up to about ten seeds. When the pods are dry, they burst open at the slightest touch, scattering seeds over ten feet away.

Yellow wood sorrel is distinctive from other wood sorrels in that the seed pods bend sharply upward on their stalks. It also tends to grow in a more upright fashion than other wood sorrels (*stricta* means "upright").

Infestations of Yellow wood sorrel can be associated with spring

timed broadleaf weed control applications. The reason is that most spring-timed herbicide applications are applied before the oxalis has germinated. The result is that oxalis is perfectly suited to fill in all the voids left in your lawn from where the broadleaf weeds were removed. Once established, oxalis can be difficult-to-control as summer conditions limit herbicide effectiveness.

Read more:

<http://www.answers.com/topic/oxalis#ixzz1kcn096b6>
<http://extension.usu.edu/weedguides/files/uploads/Oxalidaceae.pdf>

Over 600 species of *Oxalis* are known, with more than 30 available as ornamentals. The foliage colors may range from green to blue to silver or burgundy-purples to gold. Some leaves show patterns or variegation as accented colors. Flowers are small and include white, pink, red, rose, purple, and orange.
<http://okeechobee.ifas.ufl.edu/News%20columns/Shamrocks.htm>

"I have admired this plant for a long time. The beautiful purple color in the leaves is hard to beat. The long stems for the ground are topped with a cluster of three deltoid-shaped leaflets, which are one and a half inches long. The leaflets fold at the mid-vein and resemble purple butterflies. My Mother had given a friend of hers a couple of these plants two years ago. During the second year the friend forgot that they were in a particular bed and proceeded to till up the flowerbed. The next year the only thing in that flowerbed was Purple Oxalis all over the place. <http://www.aogc.org/shade/000010.html>

"Nice, neat mounds. Pretty pink/purple, white, or yellow flowers. Medicinal properties, and the flowers, bulbs, and leaves that are edible and taste good, too! Who wouldn't go for Oxalis, otherwise named Wood Sorrell?".....ME! ME! ME! <http://www.gardensablaze.com/HerbOxalis.htm>

Many Wood Sorrells are frequently sold as potted houseplants and as bulbs to grow in the garden. These really beautiful plants with stunning purple or green shamrock shaped 1-2 inch leaves and splendid white, pink or purple flowers are often found in garden centers – especially around St Patrick's Day. They DO make fine houseplants often thriving and flowering continuously without much care. But be aware these plants quickly become garden thugs when planted in the garden – especially here in Florida. This article describes attempts to rid a garden of Oxalis: <http://www.gardensablaze.com/HerbOxalisEradicate.htm>

"Lastly, Oxalis is a common greenhouse pest, so check any potted plants you buy and if you see little green clover-shaped leaves in the pot, make sure you get rid of them roots and all before planting in the garden, or you will create a problem that could take years to fix!"

March, 2012

Clovers: Red, White and Crimson

When spring comes the usual collection of weeds arrives in the lawn. It is easy recognizing clover with three leaflets attached to one petiole or leafstalk. But, the University of Florida IFAS Extension book, *Weeds of Southern Turfgrasses*, lists 12 lawn weeds that have leaves that look similar to clover! Clover is a broad term that refers to plants in three genera: *Trifolium*, *Medicago*, and *Melilotus*. Each contains clover species that are troublesome in turfgrass and ornamental areas. Three of the *Trifolium* clovers are the White, Red and Crimson clovers.

White clover *Trifolium repens*, was introduced to the US as a pasture crop, and is now common in grassy areas all over America. It is frequently included on lists of difficult-to-control weeds. White clover, as with all legumes, has the ability to survive under low soil nitrogen conditions. Clover patches can be very conspicuous in lawns as it maintains vigorous growth and dark green color. Clover can be identified by the three leaflets often characterized by a crescent moon shaped watermark. It is a low-growing, shallow-rooted, cool season perennial with whitish flowers, often tinged with pink as the flower ages. White Clover spreads by stolons or above ground runners. The plant takes root from the stolons at nodes along the stems when they come in contact with the soil. White clover is adapted to many soils but tends to grow best in soils that are moist and low in nitrogen. Clover usually flowers from May through September.



Red Clover *Trifolium pratense* is a short lived perennial. The flowers are dark pink with a paler base. The leaves are alternate on the stem with three leaflets green with a characteristic pale crescent in the outer half of the leaf. It is a cool-season legume that dies as the days lengthen and temperatures rise.

Crimson clover *Trifolium incarnatum* with its red flower is frequently seen by roadsides, in hay fields and grazing areas in spring. It's a cool season annual that is a soil builder, provides erosion prevention, ground cover, forage and nectar for honey bees. This annual weed also imparts nitrogen to the soil.



All of these clovers are in the Legume family and actually provide benefits to your lawn. Peanuts, soybeans, a huge variety of peas and lentils are also legumes.

What makes legumes so famous in the plant world is their ability to gather and use nitrogen from the air! Earth's atmosphere is approximately seventy-eight percent nitrogen. At present, it's commercially expensive to gather nitrogen from the atmosphere to produce fertilizer so an excellent alternative is to plant legumes.

All legumes have evolved a beneficial relationship with the bacteria, *Rhizobia*, which lives in their roots. Working together *Rhizobia* and the legume plants capture nitrogen from the atmosphere! This means that nitrogen is left in the soil after the plant dies and decays. So, an unwelcome weed may turn out to be a blessing in disguise!

Various small mammals and honeybees feed on clover blossoms, foliage and seedpods, including Cottontail Rabbits, Groundhogs, Thirteen-Lined Ground Squirrels, and Meadow Voles. Large hoofed animals, such as the White-Tailed Deer, cattle, horses, and sheep, graze on the foliage, too.

As our turfgrass resumes its growth in spring, it will generally crowd out these weeds. In lawns, the best approach to reducing clover is to mow correctly, fertilize correctly and water correctly to encourage the grass to grow faster than weeds.

Clovers are considered by some to be weeds in turfgrass. Many common weedkillers list these plants as target species on their product labels. But remember, clovers in lawns may actually be valuable to keep because they have the ability to take nitrogen from the air and convert it into fertilizer.

To learn more about using clover or other legumes, visit the University of Florida IFAS website at <http://ifas.ufl.edu> and type "clover" in the search engine.

http://leon.ifas.ufl.edu/News_Columns/2010/042210-UrbanLegumes.pdf

<http://okeechobee.ifas.ufl.edu/News%20columns/Shamrocks.htm>



April, 2012

Smilax bona-nox L

Saw greenbrier, Catbrier, Bullbrier Smilacaceae (Grenenbrier Family)



“What in the world is that thorny weed growing a mile-a-minute out of my Azaleas?? It looks like an alien reaching for the sky!” This is a common complaint right now as *Smilax*, *bona-nox* weeds are making their presence known - spectacularly! *Smilax* is from the Greek *smilakos*, meaning twining but there is more to that story. *Bona-nox* means “good night” and usually refers to plants that bloom at night. The Spanish called them *Zarza parilla*, (brier small grape vine) which in English became sarsaparilla, and indeed sarsaparilla used to come from *Smilax*.

Smilax bona-nox is a prickly vine sometimes forming dense tangles in shrubby and wooded areas. Stems are smooth, green, and often have stout, sharp prickles or thorns on the lower sections.



blades up to 4 1/2 inches long and 4 inches wide. They vary from triangular to heart shaped, firm textured and occasionally mottled on the upper surface and persist into winter. Flowers are small, rather inconspicuous, in clusters arising from the axils of the leaves (male and female on different plants) appearing from March to June. The fruit is spherical, 1/4 inch in diameter, fleshy and purplish black. http://www.wildflower.org/plants/result.php?id_plant=SMBO2

Smilax is often called cat brier because of its thorns, or prickles. *Smilax* climbs by means of tendrils coming out of the leaf axils. Again, technically, it is not a vine but a “climbing shrub.”

Smilax is usually found in a clump on the ground or in a tree throughout the forest - along forest edges and disturbed areas. They provide protection and food throughout the year for over forty different species of birds and are an important part of the diet for deer, and black bears. Wildlife use all of the *Smilax* species as food sources. White-tailed deer browse the stems and leaves while birds consume the berries. Deer eat the tender shoots and leaves as they emerge and in late winter when other food sources have disappeared, deer will eat older, more mature leaves and stems (Hart 2006). <http://edis.ifas.ufl.edu/fr241> Rab-

bits eat the evergreen leaves and

vines, leaving a telltale (tell tail?) 45 degree cut. Beavers eat the roots.

Smilax also has a long history with man, most famous perhaps for providing sarsaparilla. The roots (actually rhizomes) can also be processed to produce a dry red powder that can be used as a thickener or to make a juice. Young roots — finger size or smaller — can be cooked and eaten. While the tips and shoots can be eaten raw. Interestingly, early American settlers made a real root beer from the *smilax*! They mixed root pulp with molasses and parched corn then allowed it to ferment. One variation was to add sassafras root chips, which gives it more of a root beer flavor.

Francis Peyer Porcher, (1824-1895) doctor, professor of medicine, and botanist, wrote during the Civil War in the 1860's: “The root is mixed with molasses and water in an open tub, a few seeds of parched corn or rice are added, and after a slight fermentation it is seasoned with sassafras.” Dr. Francis Peyer Porcher was professionally active in medicine when the American Civil War began. During a blockade of medical supplies he was asked to write a field manual for doctors to help them find and make substitutes for medicine in the absence of supplies. His work, *Resources of the Southern Fields and Forests*, is still used as a reference. It was so popular in his day that newspapers carried excerpts! His effort was credited with helping the South prolong the war. <http://www.eattheweeds.com/smilax-a-brier-and-that%E2%80%99s-no-bull/>

So how do we battle this weed? If it's any comfort to you, *Smilax bona-nox* (saw greenbrier, catbrier) has been the bane of gardener's existence for a very long time. Learn to recognize the seedlings and pull them up. *Smilax* matures quickly, makes a thick, hardened root in which it stores water and nutrients. Hand pulling often only breaks off only the top-growth which the root quickly replaces. This plant has long, large underground root systems to tubers that can be as big as a potato. Getting to that with herbicide is very difficult.... and often impractical or impossible. Cut new growth a few inches above the soil and paint the remaining stub with an herbicide labeled for that purpose (i.e. “stump killer”) is a good control method. Unfortunately, persistence is also required, there is no quick fix! Dig and destroy these root storage organs and you will destroy the plant. <http://www.wildflower.org/expert/show.php?id=3274>

May, 2012
Verbena tenuisecta
Verbena pulchella
Moss verbena

“What is that bright purple flowering weed I see growing along the roadsides and medians right now?”

Verbena tenuisecta is a perennial herb, originally from South America. The leaves are highly divided and the plant tends to grow low giving it the common name of Moss Verbena. The rough-haired leaves are divided deeply into lobes, giving them a lacy appearance.



Moss Verbena grows fast and will make a quick groundcover filling in bare spots. The inflorescence is a dense, headlike spike of many flowers up to 1.5 centimeters wide. Each flower is up to 1.4 centimeters wide and white to purple in color. The flowers are butterfly attractors.

- ☞ **Form:** low, ground hugging herbaceous ground cover
- Season: evergreen; foliage may go reddish in winter.
- ☞ **Size:** 6-12in high, spread 3-6ft
- ☞ **Leaves:** fernlike, almost mossy, finely cut, opposite
- ☞ **Flowers:** terminal clusters of tiny compound flowers; many hues of purple, plum, white; strongest bloom in spring, then declining in summer heat, flowering returns with cooler temperatures.
- ☞ **Fruit:** seed
- ☞ **Stems/Trunks:** flat-growing perennial
- ☞ **Range/Origin:** South America
- ☞ **Hardiness:** to low teens; may die back to main stem but recovers



http://www.volusia.org/arboretum/Flowers/moss_verbena.htm

http://ag.arizona.edu/pima/gardening/aridplants/Verbena_tenuisecta.html

June, 2012

Gnaphallium pennsylvanicum Cudweed



Cudweeds: The cudweeds are comprised of many different species that are similar in growth habits. In general, the cudweeds have basal rosettes and the leaves and seedheads are covered in distinct fine,

white "wooly" fibers. Some cudweeds only have this hair on the undersides of the leaves, and other cudweeds have this hair on all surfaces. Cudweeds overwinter as small basal rosettes, but in the spring usually grow an upright stem.

Wandering
Cudweed: *Gnaphallium pennsylvanicum*, Most common cudweed in Florida!



This is a low-growing summer or winter annual, or biennial, which forms a rosette of grayish green woolly or cob-webby foliage. Leaves are alternate with the lower leaves being more woolly. Each flower is small, tannish-white with bracts that are light brown, pink or purple occurring in clusters at the base of the leaves. Seeds are wind dispersed in prolific numbers. Cudweed is found throughout the United States but is most common in the South. It has a

taproot with a secondary fibrous root system. Cudweeds are generally regarded as weeds of low fertility soils, but thrive in containers once introduced. Control cudweeds around the property and prevent seed production in pots to prevent spread. This weed is well

controlled by several preemergence herbicides.



<http://erec.ifas.ufl.edu/weeds/wandering%20cudweed.html>

<http://rcrec-ona.ifas.ufl.edu/weed-science/weed-id/WanderingCudweed.shtml>

<http://www.turffiles.ncsu.edu/PDFFiles/004108/Cudweed.pdf>

[http://www.cals.ncsu.edu/plantbiology/ncsc/deployed/key/WeedIT\(Beta\)/Media/Html/Gnaphallium_spp.htm](http://www.cals.ncsu.edu/plantbiology/ncsc/deployed/key/WeedIT(Beta)/Media/Html/Gnaphallium_spp.htm)

http://www.ppws.vt.edu/scott/weed_id/gnapu.htm



June, 2012
Gnaphallium pennsylvanicum
Cudweed
continued

Butterflies attracted to Cudweeds : Cudweeds are a genus of about 120 species, many of which are important host plants for the American Painted Lady butterfly. Caterpillars consuming cudweed will use the fluffy seeds of the plant and silk to create a puff ball at the top of the plants in which they can hide. These shelters help to conceal the larvae from predators.



[American Painted Lady](#) *Vanessa virginiensis*

Considered a common butterfly, the American Painted Lady is often overlooked despite its attractiveness. The intricately detailed, agate-like design on the underside of the wings is a sharp contrast to the bold orange and black pattern above. Nervous and wary, it is difficult to approach and a challenge to closely observe. When disturbed, it takes off in a low, erratic flight but often returns to a nearby location just a few moments later. American Painted Lady butterflies often host on cudweeds. The larvae construct individual shelters on the host by spinning together leaves and flowerheads with silk. Inside, the larvae safely rest when not actively feeding.



[Painted Lady](#) *Vanessa cardui*

The Painted Lady is one of the most widespread butterflies in the world appearing on all continents with the exception of Antarctica and South America. As a resident of northern Mexico, it annually colonizes much of North America each year before migrating south again in the fall. Although abundance varies from year to year, it is less frequently encountered in Florida. It is a butterfly of open disturbed sites, but may be found in most habitats when dispersing.
<http://www.butterflydatabase.com/plantdetails.php?plantidvar=209>

July, 2012

The Spurges of Summer

Euphorbia maculata (chamaesyce maculata)



Prostrate spurge is a late-germinating, low growing, mat-producing summer annual. It is very often found in fields, gardens, turf, waste areas and in non-irrigated bark mulch common to parking lot tree islands, sidewalk crevices and boulevards. It tolerates some

shade but thrives in harsh full-sun baked sites. Prostrate spurge develops a central taproot from which prostrate stems form a flat, extensively branched mat up to 2 feet in diameter. The reddish somewhat hairy stems produce milky-white latex when broken or injured - similar to dandelion. Prostrate spurge flowers are pinkish, very small and inconspicuous. They are cup-shaped and develop in terminal clusters or leaf axils. They usually occur June to October.



Spotted spurge is a summer annual with a taproot; it has an open and prostrate mat-forming growth habit. It branches freely from the base. The reddish or green prostrate stems often choke out desirable turf grasses. Once established, each plant forms a thick mat that can be up to 3 feet in diameter. Its hairy, reddish stems branch out from a central point and carry many tiny, oval leaves. When the stems are broken they emit a milky juice.



The leaves are opposite and vary in color from a pale reddish-green to a dark green but usually have a conspicuous maroon blotch. Spotted spurge may

flower within three to four weeks after emerging in mid-summer. Flowers are very small, pinkish-white, inconspicuous, and borne in the leaf axils. The fruit, a three-lobed capsule, develops rapidly.

Spurge spreads quickly throughout weak areas in your lawn. A single plant can produce several thousand seeds, which are small and can remain dormant in the soil until conditions are suitable for germination (sprouting). Even though it is a summer annual, late-season seeds can sprout next spring after lying dormant during cold temperatures. This warm-weather pest begins seed

production a mere 5 weeks after germination, so early detection and treatment is key.

Spurge germinates best when temperatures are 75° to 85°F, but germination can occur at temperatures as low as 60°F and as high as 100°F. When moisture is available, germination can occur from February through September. Light also is a requirement for maximum germination; seeds buried deeper than 1/2 inch won't germinate well. Plants that germinate early in spring in cool conditions can remain as small seedlings until temperatures are more desirable for growth.

These spurges are classified as summer broadleaf annuals. That means you can control it two ways: by applying an appropriate pre-emergent chemical in spring or by spot-spraying each clump with a broadleaf weed killer when you notice it. The weed is also easy to pull by hand.



UC Statewide IPM Project
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http://www.turffiles.ncsu.edu/Weeds/Spruge_Prostrate.aspx

<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7445.html>

<http://www.walterreeves.com/gardening-q-and-a/prostrate-spurge-identification/>

http://www.ksuturf.org/Lawn_Problem_Solver_Site/solver/weeds/wd-prostrate_spurge.shtml

August, 2012
 Elegant Dog Fennel
Eupatorium capillifolium



Fennel, sometimes known as Summer Cedar, Hogweed, or Elegant Feather, is a short lived perennial broadleaf weed. Growing in sandy dry to moist or wet areas, *Eupatorium capillifolium* does not fare well in thick, established turf. It grows best in poorly maintained turf and other waste areas: disturbed sites, meadows, pond borders, ditches, along roadsides, overgrazed pastures and in fields.

In the United States, Dog Fennel can be found along the east coast from New Jersey to Florida, and west into Missouri and Texas. It can be identified as a short-lived perennial with a thick woody base. Its multiple stems are erect, vertically growing and multi-branched in the upper flowering portion, while hairy or sometimes smooth below. The stems' color is more reddish-purple toward the base. This weed is often 4-5 feet tall but can reach 6 1/2 feet – or even 9 feet!

Dog fennel is a good name because the leaves of dog fennel are thin and threadlike; closely resembling the bright green filigree-like foliage of the herb fennel. The name, fennel, is the only similarity because this weed contains alkaloids that can cause liver damage if eaten. Dog fennel grows really tall along roadsides and fields throughout the growing season, and is carefully avoided by all grazing animals – wild and domestic. It's awful odor also deters rodents and insects. However, some butterflies and moths feed on it. It is also a larval host plant for Black Swallowtail butterfly, the Tiger Moth *Estigmene acrea* and the Scarlet-Bodied



Wasp Moth *Cosmosoma myrodora* - adult males extract toxic chemicals from Dog Fennel.

Dog Fennel is actually an elegantly beautiful plant.

When seen out of its normal context as a single specimen or as a few scattered here and there. The tall stems, standing still or swaying in the breeze, change color each hour as sunlight streams through the hair-like foliage.



For flower arrangers, stems of the lacy foliage provide a lovely foil for any selection of flowers and grasses, and the resulting arrangements are not available from florists. Gardeners call dog fennel “elegant feather” and use it in borders where it grows quickly and has a very soft feathery texture.



Eastern Kingbird resting on Dog Fennel

September, 2012

Prickly Pear Cactus

Opuntia humifusa



Most folks know that cactus grows in deserts, but few realize that here in Florida we also have native Florida cactus. Although considered a valuable plant throughout history and in some circles, today it can be a pest. Pricklypear is one of those plants that are difficult to control. Mowing spreads it, and it doesn't respond to herbicides as well as

we would like. Cattlemen and land managers generally hate them, but cacti have some desirable features that homeowners may want to consider before doing battle with these sticky succulents.

The pricklypears have been a valuable plant throughout the history of the Americas. They have been used as a food source, animal feed, and as an ornamental. The spines were used as needles for sewing. Native American and Mexican groups have used the juice to treat burns, diarrhea, asthma, rheumatism, and gonorrhoea. Today, there is some work exploring the medicinal properties for the treatment of diabetes and obesity. One of the more colorful uses comes from the red cochineal dye. The dye comes from the insect *Dactylopius coccus* that thrives on pricklypears. This dye was extremely important to Aztec culture and became a valuable and guarded Spanish export. The bright red dye was used to make the "red coats" of the British army and in the first uniforms of the familiar Canadian Royal Mounted Police coats. It is suspected that the global spread of pricklypears may have come from attempts to set up dye producing industries in other countries.

Pricklypear can be used for food and is grown commercially. In Florida yards they can be effective as burglar bushes and once established require little care. There are some prickly pears that are endangered in natural areas. Others are prohibited as invasive nightmares and have been studied as a plant in need of biocontrol. **Opuntia** is the genus in the cactus family that includes prickly pears. There are about 250 species of these plants, and all are natives of the New World. Most are found in drier climates, but 19 native species of these cacti are found east of Mississippi. Florida boasts nine native prickly pear species. Eastern Prick-

lypear, Devil's Tongue or Indian fig (*Opuntia humifusa*) is the species of prickly pear most common. Depending upon the species, prickly pear plants can grow from one to 20 feet in height. They form irregular clumps or shrub-like mounds.

These armed native perennials can be found in waste areas or pastures that have been over grazed or neglected. Pricklypears are succulent plants and suited for dry conditions. Succulent plants retain water in their tissues to endure long dry periods. Furthermore, these plants have a specific metabolism suited for dry environments. They are CAM (crassulacean acid metabolism) plants; taking CO₂ in at night and storing it as malic acid. There is less water loss through the stomata during the cool night conditions. When the sun comes up in the morning the stomata close to decrease transpiration thus conserving water and the malic acid is converted back into CO₂ for photosynthesis. As would be expected, these plants are found on dry sandy soils.



Prickly pear bloom for several weeks, but an individual flower lasts only for one day. Flowers are cup-shaped and yellow or sometimes orange to red. Blooms appear on the outermost pads and measure 2 to 3 inches across. Pollination is by bees and the seeds are spread by mammals and birds. The showy fruit may reach a length of 2 to 3 inches and are reddish-purple at maturity. When the fruit is

September, 2012

Prickly Pear Cactus

Opuntia humifusa

continued

ripe - mid to late summer - people enjoy eating prickly pears - but first the spines must be removed - using thick leather gloves or singeing off with fire. Peeled, sliced and sprinkled with lemon, the fruit has an enjoyable, sweet-tart taste. Preserves made from prickly pear fruit are quite delicious, and the round black seed inside have been roasted and ground into flour. Young stem segments of some prickly pear are also edible, and are grown much like a vegetable crop. Commercially these are called *nopales*. The prickly pear fruit are called *tuna or Indian Figs*. The gel-like liquid of a prickly pear cactus can be used as a conditioner. Prickly pears are reported to have medicinal uses.

Songbirds and small mammals shelter in spiny dens - surrounded by the plant's stems and pads. Raccoons and gopher tortoises eat the pads and fruits. Prickly pear fruit and seed are consumed by quail, wild turkey, doves, thrashers and woodpeckers, along with many mammals, such as fox, squirrel and rabbit. White-tailed deer also use the plants as a springtime browse.

These plants are well-suited to hot, dry conditions. They require a sunny, well-drained site and are tolerant of sandy, alkaline soils. Prickly pears are also well adapted to seaside and rocky locations. They can handle wet conditions for only a very short time. Prickly pear can be used as a specimen and border plant in areas where it is not an inconvenience to passersby. An established row of these makes an impenetrable border for pedestrians.

Propagation is by division because the seeds may be difficult to germinate. Wrapping a long rolled-up section of newsprint or fabric around a pad provides a convenient handle that avoids the long spines and short barbed hairs or *glochids*. Pads can then be cut off the larger plant with hand clippers. Cut surfaces should be allowed to dry before they are replanted into another location.

Although a beautiful and valuable plant, pricklypear in the wrong place can be a pest. Native to North America, Pricklypear has been invasive in other countries. Introduced to Australia in the last century as cattle feed, Pricklypear infestations rendered 12 million hectares useless, causing one of the largest ecological disasters due to an invasive plant. By 1925, Australia was struggling with 60 million acres of grazing land heavily infested with prickly pear cactus. Hundreds of square miles were virtually impenetrable to humans or animals. After failing to control it with mechanical, chemical, and cultural methods, it was biocontrol that finally worked. A small moth from Argentina, the South American Cactus Moth, *Cactoblastis cactor*, was imported and released. The moth larvae burrowed into the cactus, grew and multiplied, and within 10 years had decimated the prickly pear population. Today, the cactus covers only 1% of the area it occupied in 1925. However, this moth was also

intentionally introduced to South Africa, Hawaii, and the Caribbean as a biocontrol agent since the mid-1920s. It is now found along both Florida coasts, Alabama, Georgia, and South Carolina where it threatens all pricklypear commercial farms. Generally *Opuntia* has no other pests or diseases of great concern in Florida, but root rot can be a problem in wet locations.

In North America pricklypear is not considered invasive because it belongs here, but it can be very difficult to control:

Do not mow! Mowing generally breaks and spreads the pads or *cladodes*, increasing your problem. Where you had one plant, after mowing alone, you will have many. Removal with a pick or shovel two to four inches below the soil surface then actively remove above ground plant parts. Plants should be bagged or incinerated to prevent coming into contact with soil again.

<http://sarasota.ifas.ufl.edu/FCS/FlaFoodFare/Prickly%20Pear.pdf>

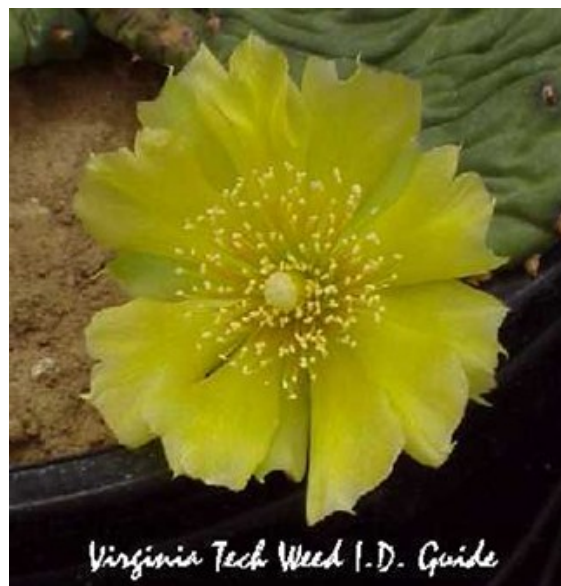
http://entnemdept.ufl.edu/creatures/bfly/cactus_moth.htm

http://www.sfrc.ufl.edu/4h/Prickly_pear/pricpear.htm

<http://www.btny.purdue.edu/weedscience/2008/pricklypear08.pdf>

http://entnemdept.ufl.edu/creatures/bfly/cactus_moth.htm

http://plants.ifas.ufl.edu/education/misc_pdfs/biocontrol_brochure.pdf



October, 2012

Torpedo Grass

Panicum repens

Torpedo Grass, *Panicum repens*, is a species of grass known by many common names, including torpedo grass, creeping panic, panic rampant, couch panicum, wainaku grass, quack grass, dog-tooth grass, and sometimes, bullet grass. It has been called "one of the world's worst weeds." Seed was imported from Africa or Asia in the late 1800's by the *United States Department of Agriculture* to grow as a forage grass for cattle. Torpedo grass loved growing in the US – especially in Florida! It was deliberately planted throughout southern Florida and it easily escaped cultivation. Now it has become one of Florida's most serious weeds! However, Torpedo grass is not listed on Federal or Florida's Noxious Weed List - yet. Torpedo grass grows well in shallow water and marshy areas and it was thought it would be good for stabilizing river and lake banks. But it quickly outgrew Florida's native vegetation and by the early 1990's it had overtaken more than 70% of Florida's public waters. The denseness of floating mats impedes water flow in ditches and canals. The dense grass restricts recreational use of sandy coastal habitats and shoreline areas of lakes and ponds. Torpedo grass is also a major problem for the sod, citrus and golf course industries. Now, homeowners are beginning to find it growing in flower beds and lawns.

The grass can grow to about 3 ft. tall with flat, stiff, sometimes folded, leaf blades – possibly covered with a waxy or whitish coating. Torpedo grass produces seed heads but the seed does not germinate well in Florida but it spreads easily

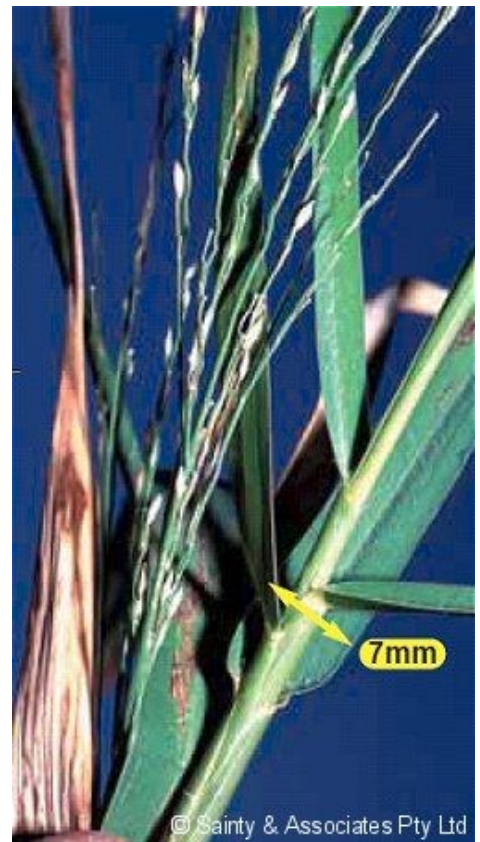


by the speedy growth of the “torpedo” shaped root tips – hence the name.

Controlling Torpedo Grass is not easy. Digging it out is

nearly impossible. If the roots or fat rhizomes are cut each one will grow – even tiny pieces produce new plants! The Center for Aquatic and Invasive Plants at the University of Florida, IFAS, has studies underway to find an effective biological control, but they are not available yet.

This is the current recommendation to get rid of Torpedo:



“Unfortunately, there is not much you can do when torpedo grass gets established. It is a grassy weed, and once it gets going there is no control. A broad weed control such as Roundup or Nature's Avenger will kill torpedo grass after a couple of treatments but will also kill your lawn grass!”

“Chemical: (*note...use the highest % of the weed killer available... possibly found at a farm store or "pro" supplier! But follow the directions, carefully!) Be really careful using around water! Use a plastic bottle to apply directly to the Torpedo - rather than a spray that will over-spray onto waterways or on desirable plants.”

“Glyphosate has been the most effective herbicide used to control Torpedo Grass. A 2 to 3% solution of glyphosate (Roundup, etc.) is very effective. Imazapyr (Arsenal, Chopper, Habitat) is also very effective at 0.5 to 1% solution. Be sure to include a non-ionic surfactant (such as Concentrated Dish Liquid, or Hi Yield Spreader Sticker) at 0.25% (10 mLs or 2 teaspoons per gallon of spray solution).”

October, 2012
Torpedo Grass *Panicum repens*
continued

"These herbicides are systemic (move through-out plant tissue) so care must be exercised to minimize off-target damage. In addition, Imazapyr has soil activity, so care must be exercised around sensitive species such as oaks (*Quercus* spp.). Torpedo Grass is most difficult to control when partially submersed in water. Regardless of habitat conditions, multiple re-sprays may be required for complete control."

from: <http://plants.ifas.ufl.edu/node/308>
www.plants.ifas.ufl.edu/torpedo.html



November, 2012

Henbit

Lamium amplexicaule

A member of the mint family, Henbit is a non-native, low-growing, weedy winter annual with pink to purple flowers in winter and early spring. Henbit is native to Europe, western Asia and northern Africa but has established itself all over North America. This weedy wildflower grows in farm fields, pastures, roadsides, along stream beds, in drainage ditches, at the edge of lawns, gardens, nursery plots, areas along buildings, and in other moist areas where it gets a little extra water in full or partial sun. It is often found growing in bare spots and thin or closely-mowed lawns.

Spring blooming Henbit is responsible for painting many lawns and roadsides pinkish purple. But flowers may also bloom in the fall and sometimes in the winter in North Florida. Bloom time lasts 1-2 months. Seedlings actually sprout in the fall from seed dropped from the previous spring's crop. But Henbit can also reproduce by stems rooting at the nodes. Plants become dormant during the hot weather of summer.

Henbit's flowers aren't very pretty up close, but it is lovely growing in large patches. Travelers often see entire fields that are the reddish-purple of Henbit's flowers before spring ploughing. The flowers create carpets of lavender but Henbit is also known to spread aggressively and is considered an undesirable weed in lawns. It propagates freely by seed and is usually regarded as a weed.

The common name, Henbit, is like chickweed: its name came from watching chickens liking it. They're not alone. Humming birds like it, too, but for nectar. The nectar and



pollen of the early spring blooming flowers attract long-tongued bees, including honeybees and bumblebees - it helps start their spring buildup. The foliage is eaten by voles and box turtles - rabbits rarely bother it.

Growing either sprawling or up-

right Henbit has multiple square stems emerging from a shallow taproot that becomes finely branched roots. Stems grow six to eighteen inches tall and are often purplish near the bottom and greenish near the top. It spreads indefinitely in all directions. Its heart-shaped leaves are opposite and hairy, with big scalloped edges that grow along the entire length of the stem. Its upper leaves, where the flowers are located, clasp and encircle the entire stem, while the lower leaves have stalks. The trumpet-shaped flowers are small -

less than an inch long, pale pink to purple to red, and spotted on lower lip, with no aroma. The flower petals have tiny purple hairs on the upper part of the flowers - with the upper lip upright and cupped. The lower lip is 3 lobed with the middle lobe notched deeply at tip. Usually 6 - 10 flowers grow in whorled clusters around the stem. Henbit grows in almost all soils.

Purple Deadnettle

Purple henbit looks similar and can be confused with Purple or Red Deadnettle



(*Lamium purpureum*). However, purple deadnettle has upper leaves that are triangular rather than rounded, occur on stalks or petioles, and are distinctly red-tinted or purple-tinted, unlike the upper leaves of henbit that are rounded and scalloped. The flowers

are nearly identical.

Henbit has been an esteemed vegetable for a long time. Its edibility and readiness to grow in many climates often means it is permitted to grow when other 'weeds' are not. It is one of those great little edibles of spring salads. The mild, sweet taste stands in contrast to the crisp leaves usually put in salads. There are many sites on the web that have recipes for henbit, if you'd like to try it.

John Gerard, the English herbalist for whom the *Gerardia* is named, wrote of Henbit some 400 years ago: "*The floures are baked with sugar as Roses are, which is called Sugar roset: as also the distilled water of them, which is used to make the heart merry, to make a good colour in the face, and to refresh the vitall spirits.*"

"The square stems identify henbit as a member of the mint family. All mints that smell like a mint and look like a mint are edible, but they must do both. There are a lot of mints that do not smell minty, some of them are edible and some of them are not. In fact, some of the mints can make you ill. Henbit does not smell minty, but it is an edible mint. By the way, there are no poisonous look-a-likes. As for toxicity, humans are safe but it has caused "staggers" in sheep, horses, and cattle. Young leaves, raw or cooked, are added to salads or as a potherb. Stems and flowers are edible, too."

<http://www.eattheweeds.com/henbit-top-of-the-pecking-order/>

November, 2012
Henbit *Lamium amplexicaule*
continued



Henbit is a winter annual. The seeds of winter annuals germinate in fall, the plants grow through winter, and then blossom and go to seed in late winter and spring.

“The best time to control weeds is while they’re young and tender and before they have had the opportunity to reproduce. This includes cool season or winter annual weeds that are about to germinate.” Timing of the herbicide application is of utmost importance in controlling winter weeds which are about to sprout in home lawns all over North Florida.

If you intend to use a preemergence herbicide, apply it during October when night time temperatures drop to 55° to 60°F for several consecutive days. This will be just before the weeds emerge. Proper timing is very important. Adequate soil moisture before and after herbicide application is necessary to activate most preemergence herbicides.”

http://okaloosa.ifas.ufl.edu/pdfs/horticulture/larry_column/2006/Best%2otime%2oto%2ocontrol%2oweeds.pdf

Two spotted spider mites overwinter as adults in the soil or on weed hosts such as violets, *henbit*, and hollyhocks. If spider mite infestations are detected early enough, a daily misting or spraying with a garden hose can be an effective control. <http://www.mrec.ifas.ufl.edu/Foliage/entomol/ncstate/mite4.htm>

<http://www.fireflyforest.com/flowers/1376/lamium-amplexicaule-henbit-deadnettle/>

<http://www.missouriwildflowerguide.com/FlowerHenbit.asp>



<http://natl.ifas.ufl.edu/docs/LAAM.pdf>



http://hort.ufl.edu/yourfloridalawn/weed_management_chemical.shtml

December, 2012

Bittercress

Cardamine hirsuta

Bittercress (*Cardamine hirsuta*) is an annual weed that usually shows up in flower beds or container plantings in summer. Bittercress is found throughout the northern half of the US as well as the southeast, thriving in moist to wet soils.

Weed Description: It is most often a summer annual, and occasionally a winter annual weed of landscapes, container-grown plants, and greenhouses.

Seedlings: The cotyledons or first leaves are round and occur on petioles. The cotyledons and first true leaves have hairs. Subsequent leaves have alternately arranged leaflets.

Stems: Erect and branched at the base, stems may be as much as 12 inches tall.

Roots: A taproot.

Leaves: Leaves consist of 2 to 4 pairs of leaflets that are arranged alternately along the central leaf stem. Individual leaflets are round in outline. Each leaf occurs on a petiole that is usually distinctly hairy. Lower leaves may be hairy but not as distinctly hairy as the upper leaves.

Upper leaves are smaller than the lower basal leaves.

Flowers: Occur in clusters at the ends of the flowering stems. Individual flowers are small (2-3 mm) and consist of 4 white petals.

Fruit or seed: The seed pod is a long (3/4 to 1 1/4 inches), and narrow capsule with many seeds, known as a Siliqua. When the

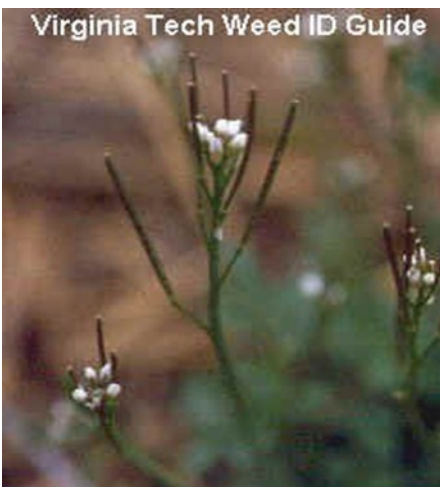
capsules dry out or mature in a week or two, the slightest touch will

cause them to burst open explosively scattering seed far and wide. ... as much as 10 feet from the parent plant!

Identifying Characteristics: The long narrow siliques and round leaflets are arranged alternately and are both characteristics that help in the identification of hairy bittercress. http://www.ppws.vt.edu/scott/weed_id/carhi.htm



Bittercress seedlings often germinate in large numbers. (A house key compares size.) The first true leaves are simple, while subsequent leaves are generally pinnately compound. Bittercress has unique foliage. The leaflets on the foliage have a club shape, even on small seedlings.



December, 2012

Bittercress *Cardamine hirsuta*

continued

A single bittercress plant may form a small clump 4 to 8 inches tall and wide. When many bittercress grow in a small area, it can appear as a thick mat of foliage and seed-pods. The seed pods, Siliques, each have about 30 seeds and each bittercress plant can generate up to 5000 seeds!



As if bittercress weren't bad enough by itself, it is also a refuge for aphids!

Bittercress are generally easy to control with preemergence herbicides. However, because one weed can generate so many seeds, failure to use or properly time herbicide applications can result in rapid infestation. This is why bittercress tends to be more problematic in nurseries and greenhouses (where herbicides are not used). The best control after it sprouts is vigilant application of a non-selective herbicide (Roundup, Earth-tone Weed Control, etc). You may also get control with any of the numerous broadleaf weed herbicides.

<http://oregonstate.edu/dept/nurseryweeds/weedspeciespage/bittercress/bittercress>

<http://www.walterreeves.com/gardening-q-and-a/hairy-bittercress-identification/>

January, 2013

Asiatic Hawksbeard *Youngia japonica*



What is the weed that has big leaves at the bottom; puts up a thin stalk with a cluster of little yellow flowers at the top? It's not a dandelion and it seems to be everywhere. It's Asiatic Hawksbeard. It's been around for about a decade but it's now spreading rapidly in landscapes, roadsides and woodlands.



Common in Florida, found as far north as Pennsylvania and west to Louisiana, Hawksbeard is native to Southeast Asia. Classi-

fied as a cool season annual, it has been known to survive our winters. It reproduces by seed so pulling it up or using a weedeater before it produces flowers makes this weed easier to control. <http://tinyurl.com/cdltilg>

At 8 to 20 in. tall, Hawksbeard looks like a dandelion on steroids. In fact, this edible annual's young leaves can be used just like a dandelion's, as a green in salads. Larger and older



leaves can be cooked as a pot herb – like spinach. <http://tinyurl.com/conrt88>

nearly throughout Florida and blooms all year.

(Wunderlin, 2003). Asiatic False Hawksbeard is found from Pennsylvania to Texas and all states southeast, as well as Hawaii (Kartesz, 1999). It

usually occurs in non-wetlands, but is occasionally found in wetlands. <http://plants.ifas.ufl.edu/node/479>

Hawksbeard's leaves are mostly basal, with slightly lobed divisions. Hawksbeard's flowering stalks are usually branches in the uppermost part of the plant. Its flowers are yellow to orange-yellow with 5 tiny teeth at the end of the outermost petals. Hawksbeard reproduces by seed. <http://tinyurl.com/bvl2us8>

Control this weed by mowing, weed-eating or hand pulling plants before they produce seeds. Labeled preEmergents include: Gallery, Snapshot, Barricade or Factor. Always read all the instructions before using pesticide products.

Although Hawksbeard is a summer annual herb, it often persists year round in nurseries. Seedlings form a rosette with hairy leaves. Its flowering stalk is leafless, branched at the top and 6 to 15 inches tall. The flowers are yellow, dandelion-like but only 1/2 inch diameter. Seedheads are dandelion-like, too about 1/2 to 3/4 inches in diameter, and seeds are wind dispersed. Do not let the plants go to seed!



http://ppwsipm.contentsrvr.net/asiatic_hawksbeard.php

This non-native invasive herb is common in disturbed sites

February, 2013

Florida Betony

Stachys floridana



Florida Betony, *Stachys floridana*, is also called “rattlesnake weed” and sometimes “hedgenettle.” This weed grows on wet, sandy soils, lawns, landscape beds, roadsides and thickets throughout Florida, westward to Texas and northward to Virginia. It is a problem weed in both gardens and lawns. Florida betony is a “winter” perennial actively growing in mid - to late fall and spring and then slowing or becoming dormant in the extreme temperatures of winter and summer. Like most plants in the mint family, Florida Betony has 10-15 inch, square stems with two-inch-long, oval, aromatic and opposite leaves. The flowers are usually pink, have the classic mint-like structure and occur in clusters of 3 -6 in the upper leaf axils. Although Florida Betony spreads by seeds, rhizomes and tubers, seedlings are rarely seen. Virtually all spreading is by tubers. It has the unique characteristic of producing white tubers that look like the rattles of a rattlesnake, hence the name “rattlesnake weed.” The young sprouts growing from the tubers have leaves on opposite sides of the stem which is usually square and quite hairy.



Tubers of Florida betony can reach lengths of more than 1 meter in moist, sandy soils. The tubers are edible and some people relish their succulent flavor. They are said to have a very fresh taste and are crisp and crunchy when you bite into them. Tasting like a very mild radish, the tubers can be sautéed with butter or oil, boiled, pickled, added to soup and stews or just eaten raw in salads. They have been known to sell for \$20.00 per pound! Who knows, maybe one day we will be figuring out how to grow Florida betony



instead of killing it! Anyone want some fresh rattlesnake weed tubers in their salad?

However, the edible tubers are what make rattlesnake weed such a tough weed to get rid of. They allow the weed to spread aggressively and make it difficult to be removed by hand. You may have better success by using an

appropriate herbicide. Just be sure to read and follow all label instructions. The first line of defense against Florida betony in lawns is to use cultural practices that promote vigorous turfgrass growth and development. Florida betony does not readily infest turfgrass that is properly fertilized, watered, and mowed at the correct height and frequency. Florida betony is usually found in bare or thin areas of the lawn. Keep in mind that the strongest defense against weeds is a healthy lawn, so be sure to mow, fertilize, and irrigate your lawn according to UF/IFAS best management practices.

<http://edis.ifas.ufl.edu/fw041>

http://gardeningolutions.ifas.ufl.edu/giam/problems/weeds/florida_betony.html

<http://edis.ifas.ufl.edu/ep388>

http://www.caes.uga.edu/publications/pubDetail.cfm?pk_id=7648

http://walterreeves.com/qa_display.phtml?qaID=1352

http://www.turffiles.ncsu.edu/Weeds/Betony_Florida.aspx#

<http://thefamilyherbalist.wordpress.com/2012/09/florida-betony-stachys-floridana/>



March, 2013

Creeping Charlie or Creeping Jenny, ground ivy, gill-over-the-ground *Glechoma hederacea*



When a plant has this many nicknames, you can be pretty sure of two things: it's widespread, and people interacted with it in a number of ways over a long period of time! Creeping Charlie, or "ground ivy" (*Glechoma hederacea*) is an aromatic, perennial, evergreen creeper of the Mint family that thrives in moist, shady areas, though it will also grow in some sun. Native to Europe, Creeping Charlie has naturalized in North America and is now considered an "invasive Species." It is widely encountered in most regions of the U.S. except for the Rocky Mountain states. Part of the reason it spreads so quickly is that roots grow from each leaf node and form new plants as the stems creep along the soil surface.

Creeping Charlie has squarish stems like all members of the mint family. The stems vary in length from a few inches to two feet long and tall. The color of leaves also varies, from dark green to purple and are opposite, scalloped, heart-shaped, and about 1 inch wide. Erect, tubular, 1/2 inch, bluish-purple flowers grow March to July in clusters of two or more. Seeds form that look like small nutlets.



So creeping Charlie has aggressively crept into your lawn or landscape and is threatening to take over the entire neighborhood? Your plants are being crowded and smothered by it? It has gone too far! This means war upon Charlie's "kingdom". What do you do?

Well, first of all, you need to be sure that King Charlie is who he says he is because proper weed ID is essential to good weed control. It is a type of mint, and when the plant is crushed, there is a strong mint-like odor. If you have Creeping Charlie, you need to ask what is so appealing about this location, besides the fact that your garden is truly lovely? Chances are, it has the



right conditions for optimum growth—some shade, good fertility, and plenty of moisture. Life is even easier for creeping Charlie if there is no competition from other plants. Realize that this weed is persistent and may keep returning to the same area as long as conditions are favorable.

Maybe you can change the growing conditions. If possible, improve soil drainage or water less frequently. If the area is bare soil, plant something strong that will compete well with weeds, maybe natives like Blue-eyed Grass, *Sisyrinchium angustifolium*, Common Blue Violet, *Viola sororia*, Blue Phlox, *Phlox divaricata*, or Wild Ginger, *Asarum canadens*.

Repeated pulling can control small infestations. Careful spraying with glyphosate (Roundup) may work but overspray will also affect other plants. Follow all label directions carefully.

Web search Creeping Charlie and you will get a plethora of websites that offer suggestions how to kill this "invasive" weed; yet if you truly want to get rid of it, eat it! For centuries Creeping Charlie has been praised as a nutritious edible plant that's loaded with vitamin C. This powerful wild edible has a multitude of health benefits and tastes great in a salad.

Creeping Charlie is considered a major U.S. Invasive Species.



March, 2013

Creeping Charlie *continued*



Helpful and informative links:

<http://www.dnr.state.mn.us/invasives/terrestrialplants/herbaceous/creepingcharlie.html>

<http://www.extension.org/pages/66948/glechoma-hederacea-ground-ivy>

<http://hyg.ipm.illinois.edu/pastpest/200114e.html>

<http://www.ediblewildfood.com/creeping-charlie.aspx>

<http://www.extension.org/feeds/content/invasive%20species>

April, 2013

Speedwell *Veronica officinalis*

Speedwell: Perennial or annual, broadleaf

Clusters of Speedwell present such an attractive sight that they are bound to "speed you well".

There are nearly 500 species of Speedwell - also known as Common Speedwell, Gypsyweed, Bird's Eye, Paul's Betony, Groundhele, and Fluellin. Common speedwell is a European introduction to the "New World." It is known to be important in European traditional medicine, with uses ranging from internal, as a cough remedy and tonic, to external, as a salve. Speedwells are roadside plants that grow in dense masses bearing tiny, pretty, blue flowers. Speedwells are among the earliest of lawn weeds to appear, greening up as early as late winter. Speedwell plants can grow easily in any well-drained garden soil, usually in partial shade.

Speedwell is native to Europe and western Asia but is widely present along the North American coastal area. It is a tiny, creeping, hairy broadleaf that grows only a few inches high and sends up flower spikes which originate where the leaf and the stem fork.

Of the 20 or so Veronica species that occur in North America, almost all are naturalized weeds from Europe and Asia. They are often found growing on lawns in the United States. Most species have blue veins on violet-blue flowers, and a whitish center.

There are several types of Speedwell, all characterized by numerous paired, small-lobed, hairy, opposite and scallop-edged leaves. And by tiny white, blue or purple 4-petaled flowers - the lowest petal being smaller than the other three. Flowers are positioned towards the end of the stems on the axils of leaves. Some Speedwells have an erect growth habit as they mature. They all thrive in cool, moist soils where turf has thinned.



Heart-shaped seed pods grow on the stems below the flowers and the creeping

stems root at the nodes. Reproduction is by rooting stems, seeds, and spreading rhizomes.

To control Speedwell, apply a pre-emergent herbicide like pendimethalin, balan, or dacthal to prevent seed germination in the spring. Spot spray with post-emergent broadleaf herbicide containing triclopyr, clopyralid, or 2,4-D, MCPP, and dicamba.



Links:

<http://www.vannatabros.com/plant39.html>
<http://medicinalherbinfo.org/herbs/Speedwell.html>
<http://turfgator.com/identify-your-lawn-problem/lawn>
<http://www.delawarewildflowers.org/eronica.php>
<http://www.weedinfo.ca/en/weed-index/iew/id/VEROF>
<http://lawncare.about.com/od/weedprofiles/p/speedwell.htm>

June, 2013

American Burnweed *Erechtites hieracifolia*



A weed seedling has shown up in my lawn and garden beds this month. I haven't seen this weed before so I carefully pulled it out of the grass and was surprised to see how few roots it had. Hmm, I thought, maybe it's an annual. I took it into the UF/IFAS County Extension Annex on Racetrack Rd for identification. This weed is American Burnweed, Fireweed or sometimes Pilewort, *Erechtites hieracifolia*.

Fireweed got its name because it is one of the first weeds to show up after a fire.

The good news is this summer weed is an annual so it can only reproduce by seed. The bad news is annuals can only reproduce by seed so they make the most of it by generating hundreds and sometimes even thousands of seeds. So, it only takes one plant to infest a neighborhood. Hmm, perhaps that's how it ended up in my garden.



Now what?

Research: Fireweed is primarily a weed of pastures, abandoned fields, farm crops and roadsides. It's found in almost any disturbed area from Maine, Minnesota, and South Dakota, south throughout the eastern, central, the southern states, and Oregon and Hawaii. It's also found in Newfoundland, Quebec, the West Indies, Mexico, Central America, South America, and Asia.

Fireweed is described as a tall, mostly unbranched, erect summer annual.

Leaves and stems are bright green and fleshy. The leaves are alternate, lanceolate with shallow teeth along the margin (more - toward the leaf-tip), approximately 2 to 8 inches long, and 1/2 to 1 1/2 inches wide. The stems are erect, solid, and usually without hairs (but occasionally slightly hairy), from 1 1/2 feet to 6-10 feet tall!

It prefers full sun, tolerates moderate shade, but needs

fairly moist, well-drained soil.

Flowers bloom from August – September in open, terminal clusters but they don't open much.

White tufts at the top of the stem are the seed heads which have parachutes attached and allow for wind dispersal. This fluffy portion of the seed heads floats the seeds in the breeze, just like dandelions .

So, that's how it takes only one plant to infest a neighborhood!

“You can control Burnweed with a pre-emergent designed for broadleaf weeds, applied in March...but the weed is so easy to pull, try hand weeding first. If the plants are too numerous, any broadleaf weed control spray should work.” <http://www.walterreeves.com/gardening-q-and-a/burnweed-identification/>

Burnweed has a few redeeming features:

The presence of this weed might indicate soil deficiencies: low calcium and phosphorous, high potassium and iron. http://www.turfdoctorinc.com/view_lawn_issue.php?id=21

Burnweed may be an indicator or host of Mi (= *M. incognita*) – Southern root-knot nematode and - or Mj (= *M. javanica*) – Javanese root-knot nematode. <http://edis.ifas.ufl.edu/in846>



June, 2013
American Burnweed
continued



Peterson's: "A Field Guide to Edible Wild Plants: Eastern and Central North America": says it can be used for a salad or cooked green. In Asia they eat the leaves raw. An acquired taste for it, as the book says is probably being kind for its strong flavor. It looks sort of like a wild lettuce but it has white, not yellow, blossoms from the green bracts or buds. The white blossoms that open from the bracts are also hairlike or downy seeds, not yellow flower petals like the wild lettuce." Anyway I have been seeing a lot of them just about everywhere lately. No, I do not want to eat any." Says Walter Muma of Wildwood Survival <http://www.wildwoodsurvival.com/jthy/viewtopic.php?f=8&t=1190>

Other helpful links:

http://orange.ifas.ufl.edu/mg/mg_compendium/Weeds_of_Southern_Turfgrasses/EREHI.htm

<http://www.commodities.caes.uga.edu/turfgrass/georgiaturf/WeedMngt/grsweedpages/Erehi.html>

<http://nassau.ifas.ufl.edu/Horticulture/questions/weeds.html>

http://courses.missouristate.edu/pbtrewatha/american_burnweed.htm

More info and good pix: http://www.missouriplants.com/Whitealt/Erechtites_hieracifolia_page.html



July, 2013

Psilophytes *Whisk Ferns*

There are so many different weeds growing now in lawns, garden beds and along roadsides. If you look you will probably recognize: Dollarweed, Florida Pusley, Spurge, Smilax, Cudweed, young Beggarticks, young Henbit, Oxalis, Bittercress, Hawksbeard, Speedwell and Creeping Charlie (often called Creeping Ivy around here), just to name a few!!

All of these weeds plus many others have been profiled before and they can all be found in our archived weed files!

In late March and April I came across a “weed” I had never seen before. I found it in new cypress mulch under shrubs in shade. This little green “weed” had no leaves and hardly



anything that looked like roots. It reminded me of a fern...but without the usual fern characteristics. Very strange.

I took it to the Annex extension for I.D. Luckily, Lynn F had seen it before! Lynn called it a “whisk fern” a Psilotales. It was so interesting that I wanted to share it.

Psilotum, Whisk

Ferns: A genus of very primitive vascular plants without true roots, and with the spore capsules borne in fused triads on the upper parts of the forking stems, in the axils of tiny scales. There are no real leaves, but the green ridged stems act as photosynthetic organs.

“The Psilotales are the least complex of all terrestrial vascular plants. This is primarily because psilophytes are the only living vascular plants to lack both roots and leaves. Psilotales occurs in the Caribbean, the Gulf and Atlantic Coasts as far north as North Carolina, and in Arizona. It’s found in tropical Asia and on Pacific islands. In addition to its natural distribution, Psilotales is also found as a common weed in greenhouses, and sometimes escapes cultivation in regions with mild climate. It occasionally becomes a nuisance, but is still very popular for its unusual growth form. The psilophyte stem lacks roots; it is anchored instead by a horizontally creeping stem called a rhizome. The erect portion of the stem bears paired enations, outgrowths

which look like miniature leaves, but unlike true leaves, the enations have no vascular tissue. This “fern” can be grown in a pot!



For more info: <http://www.ucmp.berkeley.edu/plants/pterophyta/psilotales.html>

Pics: <http://i.ytimg.com/vi/U6EfSKrvr1Y/o.jpg> http://www.emc.maricopa.edu/faculty/farabee/BIOBK/psi_nud_mid.jpg

http://farm4.staticflickr.com/3001/3018215297_8ba2797827_z.jpg?zz=1



August, 2013

Partridge Pea *Cassia fasciculata*



Do you have this weed growing in your garden? This is Partridge Pea, *Cassia fasciculata* (also known as *Chamaecrista fasciculata*). It's a sun-loving annual that grows in poor, sandy or gravelly soil. From July through September, the flowers create a yellow blanket across rural roadsides, disturbed places and old pastures, sprouting every year from seed to bloom with its bright yellow flowers of summer.

Partridge Pea, also known as prairie senna or golden cassia, is well-established throughout the entire eastern half of the US, where it is frequently included in forage mixtures. This reseeding annual is found in disturbed sandy soils throughout Florida.

Partridge Pea is sometimes known as "Sleeping Pea," which refers to the leaves, which fold shut at night. The blue-green pinnate leaves are "sensitive" and even fold if you touch them! The roots are fine, almost hairlike when young, which makes them hard to just pull out. If you let the plants get big enough, they produce showy, bright-yellow flowers with a small reddish orange blotch at the base and dark red anthers. Flowers grow in the leaf axils all along a 2 foot sprawling stem and provide sweet nectar for bees and butterflies.



Partridge Pea can grow to a possible 6 feet tall, if you let it! But typical heights are closer to 3 feet. In the past, partridge pea

was planted as a wildlife food for game birds, hence its name.

This annual plant can quickly establish itself on disturbed ground, where it provides shelter for quail and other small ground-dwelling birds. Sulphur butterflies are drawn to Partridge Pea as a larval source for its caterpillars, and the flowers also provide a good nectar supply for butterflies, ants and honeybees.

Long-tongued bees are responsible for pollination of the flowers, and include such visitors as honeybees, bumblebees, Miner bees, and large Leaf-Cutting bees. They are attracted to the food pollen of the purple anthers, and are then dusted by the reproductive pollen of the yellow anthers.

Like all legumes, Partridge Pea is a nitrogen-fixer and over time can improve the fertility of the soil when allowed to grow. It's frequently planted for honey, butterfly habitat, nitrogen-fixing, and quail food sources. This native is an adventurous sort, colonizing newly disturbed ground and

then subsiding as other species take over. If you have meadowlands, Partridge Pea can be a useful addition to the mix of grasses, herbs and plants there.

Sounds great, right? Well, you might not really want a rapid colonizer in your flowerbeds!

You might find this weed in every nook and cranny!

The key to controlling the spread of Partridge Pea is to remove the plants before they go to flower. Late summer to fall brings the growth of long thin pea pods filled with miniature black lima beans. These beans are poisonous to livestock if consumed in large quantities, but birds relish them, hence the name, Partridge Pea.

You'll find that it produces seeds like crazy and the seeds seem to remain viable in the soil for ages. Annual use of a pre-emergent herbicide at the proper time is usually effective.

Because these are annual weeds, eventually you'll get the upper hand if you are religious about removing young plants and you maintain a timely program of pre-emergent control.

<http://edis.ifas.ufl.edu/fwo06>

<http://edis.ifas.ufl.edu/in483>

http://nababutterfly.com/partridge_pea.html

http://www.illinoiswildflowers.info/prairie/plantx/part_peax.htm

<http://thepapershell.com/summer-weeds-partridge-pea/>



September, 2013

Lambsquarters *Chenopodium*



August! This is the height of summer weed season!! Garden beds are sharing space with a host of annual weeds. Young Chamberbitter- looking like mini Mimosa trees - are everywhere. Ground-hugging Spurge sprouts up every minute or two! And you'll likely find Florida Pusley hugging the ground too - sporting its 2 four petaled white flowers. Oxalis masquerading as a Clover look-a- like, Dollarweed, loving this rainy, summer weather and a host of other weeds are vying for space.



Common Lambsquarters is present, too. This rapidly-growing summer annual weed can grow from a few inches to a grand 6 feet! This extremely variable growth behavior depends on location and enables the plant to adapt to many environmental conditions. It is often found

along roadsides or in open fields. Yet plants found in lawns or gardens may produce seeds when only a couple inches tall!

Lambsquarters really prefer the rich soil of our flower gardens or vegetable beds. Its leaves vary in shape from triangular to ovate to lanceolate. The first two true leaves are opposite and ovate with smooth edges. Later leaves are alternate, arrowhead-shaped with unevenly -toothed edges. At the top of the plant, the leaves become long and narrow.

Leaves are pale green and covered with a white or gray coating that give the appearance of frost; but the undersides can be purplish. Flowers are small, inconspicuous, yellow-green, and occur in clusters at the tips of branches and upper leaf axils. Flowers occur from July to September. Seed color varies from black to brown to brownish-green. A single plant can produce thousands of seeds which can persist in the soil for years. These seeds have been known to survive 30-40 years!

The weedy nature of Lambsquarters comes from its adaptability rather than from the aggressiveness that characterizes many other weeds. Lambsquarters is not destructively competitive; its survival depends primarily on seed production. Once pollination and seed set occur, so many seeds are



produced that a carpet of Lambsquarters can emerge even in fields frequently cultivated. Seed longevity ensures the continued presence of seedlings for years after a population is apparently controlled. New infestations of Lambsquarters are patchy, but stands soon become so dense that they may smother crops. <http://extension.psu.edu/pests/weeds/weed-id/common-lambsquarters>

Control

The best methods of weed control in the home vegetable garden are mulching, hand pulling, rototilling, hoeing and preventing the weeds from going to seed. Because of its short, branched taproot, Lambsquarters can be easily hand-pulled from moist soil. the seeds are so persistent in the soil, removal of escapes from the garden before they set seeds is critical for long-term control.

Prevention by use of good cultural habits should be the first line of defense in eliminating broadleaf weeds such as Lambsquarters from lawns and gardens. Pre-emergent herbicides can be used to prevent germination of this weeds seeds. Post-emergent herbicides effective against broadleaf weeds are 2,4-D, MCPP and dicamba (sold under many brand names) and combination formulas. Read labels to be sure the herbicide is effective against the weeds you want to eliminate and carefully follow labeled directions.

<http://www.colostate.edu/Depts/CoopExt/4DMG/Weed/lmbqrtrs.htm>

http://blogs.mcall.com/master_gardeners/2013/03/common-lambsquarters-is-a-tenacious-weed.html

http://oregonstate.edu/dept/nurseryweeds/feature_articles/



October, 2013

Slender Three Seeded Mercury *Acalypha gracilens*



Slender Three Seed Mercury is a weed that is “a new one” to many of our weed experts! It was brought in

for ID by one of our interns and it took some doing to identify it! Not noticed in our neighborhoods before, everyone is finding this plant nearby!

It is a North American native plant known as Slender Three seeded Mercury, *Acalypha gracilens*, a Euphorbia, related to spurge. Also sometimes called Copperleaf, Slender three-seeded (or three eed) Mercury is widespread in eastern and southern North America: from Maine to Florida and west to Wisconsin, Oklahoma and Texas. It's a forb or herb, a non-woody plant (that is not a grass) in the genus *Acalypha*. It can be found in sun to part shade in disturbed habitats including fields, lawns, roadsides and clearings.

These plants are characterized by longitudinally folded, lobed, leaflike bracts that persist throughout the growing season. It flowers from late spring to mid-fall producing flowers in greenish clusters in the axils of leaves. The 3 seeds are small, egg-shaped and dark brown to light gray or tan, nestled in the bracts. The leaves and leafy bracts sometimes change from green to coppery in the fall as the mature seeds drop. Three-seeded mercury can be found from bottomland forests to upland prairies, pastures, old fields, disturbed places, and weedy gardens. An annual, this weed grows and produces abundant seeds in one season and is therefore of moderate importance as a seed producer. The seeds are used by Northern Bobwhite, Mourning Doves, Swamp Sparrow, along with other songbirds, and may be included in “Wildflower Birdseed” mixes.



Many insects are attracted to three-seeded mercury, making it a component of brood habitat for quail. Seeds are readily used by quail for food. White tailed deer also forage this plant. However, slender copperleaf may become abundant on disturbed ground and is considered a high-use

deer forage plant throughout the Southeast, especially during summer. Slender Three seeded Mercury is often spread by animal-dispersed seeds.



A pre-emergent herbicide containing the active ingredient atrazine will provide very good control of three-seeded mercury.

Other means of control are the same as for the ubiquitous Spotted Spurge.

<http://meltonwiggins.com/acalyphagracilens.html>
http://www.wildflower.org/plants/result.php?id_plant=ACGR2
http://www.omafr.gov.on.ca/english/crops/field/weeds/threeseeded_mercury.htm
http://www.southeasternflora.com/view_flora.asp?plantid=1365#
<http://sagebud.com/slender-threeseed-mercury-acalypha-gracilens/>
<http://www.floraofalabama.org/Genus.aspx?id=1889>
http://www.missouriplants.com/Greenalt/Acalypha_gracilens_page.html
<http://www.florida.plantatlas.usf.edu/SpecimenDetails.aspx?PlantID=3571>

November, 2013

Carolina Geranium *Geranium carolinianum*



I have to admit: the name of this weed makes me feel just a little bit tender-hearted about it. I mean, come on! It's a geranium, right? Um, not quite.

This little plant is a rather aggressive cool-season weed. It's also very widespread and can be found throughout the United States, and parts of Canada and Mexico. You can find it in gardens, fields, pastures, disturbed places and anywhere else the soil has been disturbed. It's easy to recognize, having a pinkish stem and finely divided leaves. It's also rather easy to remove. Although it has a taproot, it's a shallow one. Wait until the soil is moist and just pull the entire clump out of the ground. If you are diligent about pulling Carolina Geranium out before it flowers in spring, you shouldn't have too much trouble removing this weed without herbicides. Moreover, this geranium is rather mild-mannered and can't usually compete with a vigorous, well-maintained lawn. Proper watering, fertilizing and mowing will usually crowd out Carolina Geraniums.

If your lawn or flowerbed is completely overrun with Carolina Geranium and you simply cannot remove it by hand, you can use a selective herbicide for broad-leaf weeds in the lawn. In the flowerbed, the safest thing is to hand-weed. There is no selective herbicide for this weed that won't also damage most ornamental bedding plants. Because Carolina Geranium reproduces mainly by seed, apply a pre-emergent herbicide in the late summer or early fall. The seeds emerge in fall and winter here and the plants are only really noticeable when our warm-season grasses are dormant.

Carolina Geranium is sometimes called *Wild Geranium*, *Carolina Cranesbill*, *Cranesbill* or *Crane's Bill*. It is normally a biennial but can also be a winter or summer annual broadleaf weed. It prefers dry, open areas, but Carolina Geranium can be found growing in woodlands, prairies, limestone glades, abandoned fields, pastures, lawns, and roadsides. Actually, it grows just about anywhere!

Carolina Geranium seedlings are first seen as basal

rosettes. As the plant matures, multiple stems arise from the base in an overall circular growth pattern from the center. The elongating, ascending stems are usually pink to red in color. They are densely hairy and can grow 6 to 28 inches from a large tap root.

The leaves, which are $\frac{3}{4}$ to $2\frac{1}{2}$ inches wide, are rounded and deeply divided into 5-9 lobes and each lobe is lobed again and is bluntly toothed. Its flower is often white or pink to lavender and grows two to several together on reddish stems from the upper nodes. Each flower has 5 petals. Flowers are less than $\frac{1}{4}$ inch wide and form in clusters. Flowering typically occurs most often in April and May and each flower usually produces 5 seeds enclosed in a 5-lobed capsule with a long central beak, similar to a stork's beak or crane's bill. Hence the name!



When mature, the capsule springs open from the base and the five divisions curve upward dispersing seeds a considerable distance.

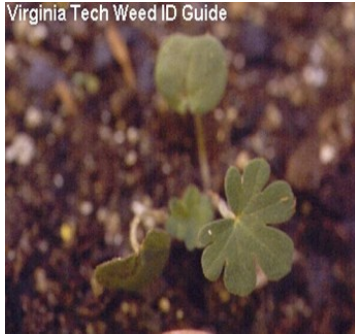
The seeds are about 2 mm long, prominently veined in a rectangular pattern and oblong in shape.

Carolina geranium is a common open-field plant and is preferred winter forage of White-tailed Deer, cattle, and Wild turkeys in the Southeast. The seeds are consumed by Mourning Doves, Northern Bobwhite, songbirds, small mammals and rodents.

Carolina geranium's distinctive identifying features are its deeply divided leaves, the "cranesbill" fruit, and its pink to lavender flower color.

continued





November, 2013

Carolina Geranium *continued*

As Carolina geranium plants grow they become excellent reproductive hosts for the twospotted spider mite and the tumid spider mite (the purple-red colored mite), complicating the management of these mites. I

It is best to control this biennial broadleaf weed in spring or fall, if actively growing at these times. Two, three, and four way broadleaf herbicides control Carolina geranium in the fall or spring. Metsulfuron (Manor, Blade, etc.) and trifloxy-sulfuron (Monument) also provide control.

Many post emergent herbicides such as Roundup, etc. will kill this weed.

<http://thepapershell.com/winter-weeds-carolina-geranium/>

<http://edis.ifas.ufl.edu/fw017>

<http://mastergardener.tamu.edu/galveston/Weeds/pdfs/108-Carolina-Geranium.pdf>

http://www.ppws.vt.edu/scott/weed_id/gerca.htm

http://www.turffiles.ncsu.edu/Weeds/Geranium_Carolina.aspx

http://www.ppws.vt.edu/scott/weed_id/gerca.htm

<http://lyra.ifas.ufl.edu/LyraServlet?>

<command=getNewsletter&oid=10863050&path=0&countyID=santarosa.ifas.ufl.edu>

http://wildflowers.jdcc.edu/Carolina_Geranium.html



December, 2013

Wild Poinsettia

Euphorbia heterophylla



It's December and time to prepare for Christmas. No flower says Christmas like poinsettia. The bright red poinsettia is one of the classic icons of the season. These beautiful flowers are even the subject of a charming Christmas legend. According to the Mexican legend, a poor girl brought some simple weeds to church on Christmas Eve. As she entered the church, her simple weeds were transformed into beautiful poinsettias.

Poinsettias are part of the Euphorbiaceae or Spurge family. Botanically, Christmas Poinsettia's technical name is *Euphorbia pulcherrima*.

Did you know a weed growing here is a close cousin of the iconic Christmas Poinsettia? Wild Poinsettia is also called Mexican Fire Plant, Painted Euphorbia, Fire on the Mountain and Paint Leaf.

Euphorbia heterophylla is a summer annual weed primarily of the tropical climates of South America but developing into a greater problem in the Southern U.S. It is native to Mexico, but many scientists believe this plant is also native to the contiguous United States.

Wild poinsettia grows in zones 9b through 11 as a perennial, but will grow as a self-seeding annual through zone 7b. A very common, knee-high herb, often found as a weed along roadsides. The plants grow only to one foot in height and survive the heat of summer quite well, often blooming just before autumn. The colorful foliage lasts until frost. As with all the poinsettias, the color we admire is actually the leaves surrounding the tiny flowers.

The minute flowers lack petals and are a 5-lobed, gland-rimmed cup, all in a cluster atop each leafy stem - just above partly red, white, or yellow leaves. The broken stem oozes a milky sap. All Euphorbias have milky white latex sap, which is toxic, so gardeners will need to make sure not to allow it to make contact with skin or eyes while working around the plants.

These plants are best suited for full sun or part shade conditions, in "lean" soil that does not have extensive organic matter or fertility. Young plants will readily appear from seed after the first year, even if mulch has been applied to the flowerbeds. Any excess seedlings may be pulled up with little trouble. Allow 6-8" of space between plants.



There are similarities between Wild Poinsettia and Christmas Poinsettia: similar leaf shape, flowers cluster at the stem's top, and the cluster's middle leaves are colored toward their bases. Of course, Christmas Poinsettias uppermost leaves are red where Wild Poinset-

tia is a very variable species and often the leaf bases are red.

Wild Poinsettia is a Florida native plant that can add splashes of color to gardens without overpowering. The dark green leaves can be oval or indented on the sides as though someone squeezed them. Some have a splash of red that looks painted on, thus the common name "Painted Leaf." Wild Poinsettia is not as showy as the kind sold during the holidays, but it has a certain homegrown charm. Most plants that provide food to bees, wasps, butterflies also feed other little critters.

Painted spurge (*Euphorbia heterophylla*) reproduces by seed. The capsules open explosively when mature, expelling the seeds short distances. They may also be spread by water movement and as dumped garden waste. This species prefers sandy soils, particularly in disturbed sites.

Wild Poinsettia is easily recognized by the red splotches at the base of new growth leaves. The plant is known to form large colonies that might appear as a tangled mass of vines, but as a solitary plant, it will stand upright, spreading its numerous woody branches. Most scientific descriptions refer to it as "Painted Leaf" since only a small piece of the leaf turns color. The coloring normally begins in early June and will have completed the cycle by end of November. This annual transplants well and will spread rapidly once established. However, do not depend on it being where you left it the year before because the seeds disperse rapidly and the plant escapes easily.

It is resistant to most herbicides and is considered invasive in many states, but has not appeared on the Federal Noxious Weeds List as of the latest update. The simplest way to control this plant is to manually pull it before the flowers mature and produce the fruits (seeds). Wild Poinsettias are also important troublesome weeds that can outcompete crops, such as peanuts in the southern United States and is considered the "eighth most troublesome weed of peanut" by University of Georgia.

I first saw this weed/wild flower years ago growing in Pensacola behind a building near historic Seville Square. I thought to myself: "Boy does this look like a poinsettia!" Since then I have seen it growing along the fence at the ANNEX. By jove, I think she's got it!!

December, 2013

Wild Poinsettia
continued



<http://www.doityourself.com/stry/favorite-christmas-plants-holiday-decor#.Un67j5V3taQ>

<http://ipm.missouri.edu/IPCM/2010/9/Weed-of-the-Month-Wild-Poinsettia/>

<http://www.enature.com/fieldguides/detail.asp?recNum=WF1719>

<http://butterflies.heuristron.net/plants/poinsettia.html>

http://courses.missouristate.edu/pbtrewatha/painted_spurge.htm

<http://www.austinbug.com/larvalbugbio/poinsettias.html>

http://keyserver.lucidcentral.org/weeds/data/03030800-0b07-490a-8d04-0605030c0f01/media/Html/Euphorbia_cyathophora.htm

<http://wildflowers.jdcc.edu/Euphorbiaceae.html>

http://www.alafarmnews.com/index.php?option=com_content&id=1803:we-have-wild-poinsettias-in-alabama

http://www.caes.uga.edu/publications/pubDetail.cfm?pk_id=6447

http://www.peanut.ncsu.edu/Weeds/Poinsettia_Wild.aspx