

10 Easy Wildflowers

for Butterflies and Bees



Selection

It may take a while to understand your landscape's soil and drainage conditions. If your wildflowers don't succeed, try again, maybe with different species. Remember, success depends on using the right plant in the right place.

Water

Water plants thoroughly when planting, then water as needed until they are established and putting out new foliage. Once plants are established, irrigation should be needed only during extended dry periods. Learn to recognize when plants look wilted and water them then. Over-irrigation can cause fungus and rot, which can kill your wildflowers. It can also cause them to grow too quickly, becoming more susceptible to pests and diseases, or too tall, requiring staking.

Fertilizer

Native wildflowers should not need fertilizer. Applying fertilizer can produce plants that grow too quickly, which can lead them to become pest and disease prone, and too tall, requiring staking. Fertilizing also encourages weeds, which can easily out-compete wildflowers.

Sustaining wildflowers

If you want wildflowers to persist on their own in your landscape, you'll need to allow for self-seeding, especially for annual or short-lived species. Keep open, lightly mulched areas available for seed to germinate. You also can collect seed and plant it where you want it. When seeds germinate, you'll need to recognize wildflower sprouts so that you don't pull them out when weeding. To download a PDF document showing some common wildflower seedlings, visit www.FlaWildflowers.org/planting.

Many wildflowers are deciduous, dying back in the winter, particularly in colder areas of the state. Don't plant over them before they re-sprout in the spring, and don't weed them out when they sprout. Mark areas with deciduous plants so you can be on the lookout for their seasonal comeback.

Mulch

We recommend Florida pine straw. To help prevent weed germination in the first month or two after planting, you can apply a 2- to 4-inch layer of mulch, but keep it away from the base of the plants. Once plants are established and before they fully flower, carefully reduce the mulch to a thin layer. Too much mulch can contribute to fungal and rot problems. To promote self-seeding, spread mulch thinly enough so that you can see the soil below.

Hardiness zones

Information on zones is included for each species. To see which zone your home or project is in, visit www.PlantRealFlorida.org/plant-communities.



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Ruellia caroliniensis by Wayne Matchett Variegated Fritillary on Asclepias tuberosa by Peg Urban Conradina grandiflora by Wayne Matchett Chrysopsis mariana by Julie Tew Glandularia maritima by Andrea England

Scutellaria integrifolia by Peg Urban Cloudless sulphur caterpillar on *Senna* by Melanie Long Bee on *Symphyotrichum carolinianum* by Andrea England *Dyschoriste oblongifolia* by Ron and Diane Bynum *Hypericum tetrapetalum* by Wayne Matchett

Glossary of helpful terms

Anther: pollen-bearing part of the stamen

- Axil: upper angle between the stem and leaf or other plant part
- Basal: forming or attached at the base
- Bract: modified leaf at the base of a flower
- **Calyx**: collective term for the sepals of a flower; typically a whorl that encloses the petals and protects the flower bud
- **Corolla**: collective term for the petals of a flower
- **Corona**: petal-like structures arising from the corolla of some flowers to form a crownlike ring
- **Cultivar**: horticultural variety of a naturally occurring species produced in cultivation by selective breeding
- Deciduous: seasonal shedding of leaves; not evergreen or persistent
- **Disk floret**: in composite flowers of the Aster family, the tubular-shaped florets that form the "eye" or center of the bloom; compare to ray floret
- **Ecotype**: distinct form of a plant species that occupies a particular habitat
- Endemic: restricted to a specific geographic area
- Entire: smooth; not toothed or lobed
- Hybridize: ability of individuals of different species to crossbreed
- Inflorescence: flowering part of a plant
- Margin: edge, as in the edge of a leaf
- Nutlet: small nut; one of the one-seeded segments of the ovary of some flowers
- Perennial: having a lifespan of several years
- Pinnate: compound leaf with leaflets arranged on opposite sides of the stem
- **Prostrate**: growing flat along the ground

Pubescent: covered with short, soft hairs

- Raceme: unbranched, elongated inflorescence
- **Ray floret**: in composite flowers of the Asteraceae family, the strap-shaped, petal-like florets that form the ray of the bloom; compare to disk floret
- **Sepal**: leaflike structures at the base of a flower; collectively called the calyx
- Stamen: male part of a flower consisting of the anthers and filament
- Terminal: borne at the tip of a stem
- Variety: taxonomic rank below species and above form that identifies differences within a species



planting and care of Milkweed

Members of the *Asclepias* genus produce showy flowers in a variety of colors. They are excellent for attracting butterflies as well as other pollinating insects. They are essential for Monarch butterflies, as they are the only genera of plants on which Monarchs will lay their eggs.

There are 21 species of *Asclepias* native to Florida, most of which are perennials. Six native milkweeds are often available commercially, with the most common being Butterflyweed (*Asclepias tuberosa;* in Florida *A. tuberosa* subsp. *Rolfii*) Pink Milkweed (*A. incarnata*) and White Milkweed (*A. perennis*).

Butterflyweed is the most widely recognized of the native milkweeds. It occurs naturally in sandy uplands and is best suited for dry landscapes. Pink Milkweed is one of the most striking species and makes an excellent addition to moist, sunny landscapes. White Milkweed is also great for moist to wet spots.



Phaon Crescent butterfly on Butterflyweed.

Description

Born in large, showy clusters, *Asclepias* flowers are some of the most intricate flowers in the plant kingdom, consisting of petals that reflex backward and an upright crown (corona) of crested hoods that are often mistaken for petals.

Butterflyweed is the most widely recognized of the native milkweeds.

It produces showy clusters of bright, reddish-orange flowers and has coarse, oval to lanceshaped leaves. Its peak bloom time is late spring through late fall. Butterflyweed lacks the milky sap characteristic of most milkweeds. The Florida subspecies tends to be less bushy than its northern counterpart.

The flowers of Pink Milkweed range in color from light pink to rose. Its leaves are lance- to linearshaped and up to 6 inches long. At maturity, a single plant can range from 2 to 4 feet tall. It typically blooms in summer.

White Milkweed produces white to pale pink flowers. It is a shorter, more delicate species of milkweed, reaching a maximum height of 2 feet. Its leaves are lance-shaped and bright green. It produces smaller flowerheads than the others but they are still very attractive.



Butterflies and Bees

Milkweed is the larval host plant for Monarch, Queen and Soldier butterflies and is an important nectar source for these and other butterflies, including Pipevine, Spicebush and Eastern Swallowtails.

Native sweat bees, leafcutter bees and yellow-faced bees are often seen foraging the flowers for pollen and nectar. Milkweed has been shown to set more seed when leafcutter bees are around to pollinate.

Pictured: Queen butterfly on White Milkweed (left) and Monarch caterpillar on Pink Milkweed (right).







Pink Milkweed

Planting

Milkweed works best in mixed butterfly and wildflower gardens. In the landscape, space plants 2 to 3 feet apart. For the best effect, place in clusters of three or more plants.

Seeds

The small, flat seeds are born in pods that split to facilitate release. Attached to each seed are silky white filaments that aid in wind dispersal. Seeds may be collected from plants once pods split. Native ecotype Milkweed seeds are generally not commercially available.

Seeds can be stored in the refrigerator for a couple of months. Germinate on top of the soil with a light mix barely covering the seeds. Once sprouted, seedlings should be potted and allowed to mature until they are about 3" tall before transplanting to the garden or landscape.

Plants

Milkweeds are typically available in 4-inch, 6-inch and gallon pots.

Hardiness

Butterflyweed and Pink Milkweed are suited for zones 8a-10b; White Milkweed, zones 8a-9b.

Care

Most milkweeds require light annual pruning to remove dead stems.

Site conditions

Butterflyweed is best suited for dry to slightly moist well-drained soils in full sun. Pink and White Milkweeds require moist to wet soils, and do especially well along pond edges or other such sites. They can tolerate short periods of drought once established, but during hot summer months, the soil should be kept moist to wet. Pink Milkweed does best in full sun but may adjust to a partially shaded site. White Milkweed can tolerate more shade. Both also do well in pots. Be sure to use a pot large enough for the plants to grow to their full potential. The pot can be placed into an even larger one to allow for water collection and retention.

Milkweed is named for the milky latex sap that exudes from stems and leaves when cut or broken. The sap is toxic to many animals and insects.

Note

Do not confuse these plants with their non-native relative, Tropical Milkweed (Asclepias curassavica), which is typically sold at big box retail garden centers. The use of A. curassavica (a perennial that does not die back in winter in Florida, as do native milkweeds) can encourage overwintering in adult Monarch butterflies and is linked to the transmission of Ophryocystis elektroscirrha (OE) infection. Be sure to inquire about species to ensure you are purchasing a native, or visit a nursery that specializes in native plants. When purchasing milkweed plants or seeds, be sure to look for and request local ecotypes that have been propagated from responsibly collected seeds.



Butterflyweed in a mixed wildflower planting



White Milkweed



Monarch on Pink Milkweed



planting and care of Goldenaster

Goldenaster (*Chrysopsis* spp.) is a member of the Asteraceae (daisy) family. Members of this genus range from the Northeastern U.S. to the southern Midwest and the entire Southeast. Eleven species of *Chrysopsis* occur in Florida, eight of which are endemic. Look for them primarily in scrub habitats and well-drained pinelands.

Description

Florida's Goldenasters include species found nowhere else in the world, and several are listed as rare or endangered by the state. The most commonly encountered species are Maryland Goldenaster (Chrysopsis mariana) and Coastalplain Goldenaster (C. scabrella). Maryland Goldenaster is found in well-drained pinleands throughout Florida, with the exception of the extreme south. Coastalplain Goldenaster occurs naturally in sandhills throughout the peninsula, expect for the extreme southern portion.



Florida Goldenaster's silvery white foliage

Florida Goldenaster (*C. floridana*) is naturally rare — endemic only to four counties in west Central Florida. However, it is often commercially available and is easy to grow. It is more compact than other *Chrysopsis* species and is most attractive in late spring and early summer when not in bloom. This is due to its beautiful silvery white foliage, reminiscent of lupine.

Goldenaster's clusters of yellow daisylike flowers are cheerful and



Maryland Goldenaster

profuse, with multiple buds at the end of each branch. Flowering usually peaks in late summer or early fall and lasts up to a month, depending on the species. All are deciduous, losing their foliage in winter and rising in spring from a basal rosette of soft wooly leaves covered with dense white "hairs."

Coastalplain Goldenaster can be leggy, with stalks that can reach up to four feet. Its blooms are limited to the crown of the plant. Maryland Goldenaster grows more compactly



Butterflies and Bees

The plant's flower nectar is attractive to native butterflies, as well as to a variety of native bees with long tongues, including green metallic bees, sweat bees, leafcutter bees, bumble bees, mining bees and miner bees.

Pictured: Bumble bee on Coastalplain Goldenaster (left) and Cabbage White butterfly on on Maryland Goldenaster (right).







Coastalplain Goldenaster

than its cousins, standing up to 18 inches tall. Its leaves are elliptical and bright green, and its attractive foliage, along with its larger flowers, make it an appealing candidate for home gardens.

Planting

Goldenaster is drought-tolerant once established and performs best in full sun, but also adapts to high pine shade. Use it as a "mid-section" addition to gardens, planting it well behind the border. Because of some species' leggy growth, consider planting Goldenaster among sturdy wildflowers that can help keep plants erect.

When planted in mass, Goldenaster can be an eye-catcher when blooming — just keep in mind its deciduous nature.



Basal rosette of Coastalplain Goldenaster

Chrysopsis plants can be planted any time and should bloom within a year of planting. However, if plants are large and close to blooming when planted, they may not have time to become established well enough to yield the abundance of blooms for which *Chrysopsis* is known.

Seeds

Maryland Goldenaster seeds are available from the Florida Wildflower Seed Cooperative. Sow in well-drained soil in late fall or winter. Seeds collected from plants should be sown immediately.

Plants

Maryland Goldenaster is the most available species sold by native nurseries, while Florida and Coastalplain are occasionally available. *Chrysopsis* plants are typically not available in spring, and if they are, they will likely be small.

Hardiness

Maryland Goldenaster is suited to zones 8a-9b. Florida and Coastalplain Goldenaster are best for zone 9.

Care

Goldenaster needs little, if any, grooming. Resist the temptation to nip back its stems when it sprawls; doing so will reduce its ability to flower. Let seeds ripen on stems once fall flowering is done, and you'll be rewarded with more plants the next spring. When stems die and become brittle, they may be trimmed from the plant.

Site conditions

In general, Goldenaster loves full sun and does best in well-drained sandy soils. Plant Coastalplain Goldenaster in sandy, well-drained soil. Florida Goldenaster does best in white, scrub-like sand. It is most likely to reseed in these conditions. Maryland Goldenaster will tolerate wetter and more organic conditions than other *Chrysopsis* species. All commercially available species adapt well to sunny urban landscapes if not overwatered.



Florida Goldenaster in a naturalistic landscape



Maryland Goldenaster in a naturalistic landscape



planting and care of False-Rosemary

Plants in the *Conradina* or False Rosemary genus may look like their namesake cousin, whose leaves are used as a savory cooking spice, but these members of the Lamiaceae (mint) family emit a minty-fresh smell when their leaves are crushed. There are six *Conradina* species found in Florida, but only one, *Conradina canescens*, is not considered endangered or threatened.

The plants are evergreen and reward gardeners with a spring display of fragrant white-lavender blooms.

Description

Conradinas are small perennial shrubs that mature into 2- to 3-foot-wide and -high silvery-green clumps. Their short, needlelike leaves grow densely from upright stems that branch from a main woody stem.

Conradina canescens occurs in the western Panhandle, and is found in dry disturbed areas and in



Conradina grandiflora

dunes. *Conradina brevifolia*, Shortleaved False Rosemary, a federally listed endangered species, is found only in scrub habitats in Polk and Highlands counties of Central Florida. It reaches out with graceful fingers that give it a unique character apart from *C. canescens*. *Conradina grandiflora*, Largeflower False Rosemary, a state-listed threatened species, can be found along coastal counties in the central and southern peninsula on scrubby sites. It has larger flowers and a



Conradina canescens

more upright growth. All are very drought-resistant once established.

Prolific flowers cover *Conradina* in spring, and the plant can keep blooming through late fall. This versatile deer-resistant groundcover can be used in mass plantings, as a single specimen or in a pot.

Planting

Conradina can last three or more years in landscapes. Plant in sandy, well-drained soil, and water until



Butterflies and Bees

Conradina is attractive to some butterflies and moths, but it mostly draws native bees, including large carpenter and digger bees. Honey bees also have been seen sampling its nectar.

Pictured: Noctuid moth on *Conradina canescens* (left) and carpenter bee on *Conradina grandiflora* (right).





established. *Conradina* releases a chemical that suppresses the growth of other vegetation, including weeds, and thus may be beneficial to the gardener, but may restrict growth of other plants close by.

Seeds

Seeds are not commercially available, but may be collected from plants when fresh. Sow in spring in well-drained soil and keep them moist until germination occurs.

Plants

Conradina can be easily started from cuttings (4-inch non-branching terminal shoots) in well-drained potting soil in small pots. Mist daily and do not allow soil to dry. Prune before transplanting or within one week after transplanting. Pinch tips to encourage branching. Plants are readily available from nurseries specializing in native plants.

Hardiness

Conradina grandiflora is suited for zones 9a-9b. *C. canescens* is best for 8a-9b. See note (right) for more information on where to plant *Conradina*.



Conradina canescens



Conradina grandiflora with needlelike leaves

Care

Conradina may be trimmed after flowering, but most gardeners leave it alone and enjoy its beautiful natural form. Sections of older, well-established plants may die suddenly; remove these to encourage new growth. *C. grandiflora* will tolerate some overhead or drip irrigation. Other *Conradina* species should be watered only during extended dry periods. Because this plant thrives naturally in dry ecosystems, overwatering may cause rot and decline.

Site conditions

Conradina is ideal for dry, sandy soils in full sun. It will thrive on natural rainfall. If your landscape is irrigated on a regular basis, look for a spot that remains dry.



Honey bee on *Conradina canescens*

Note

Of the six Conradina species in the state, all but Conradina canescens are endangered or threatened, and thus limited in population. Because these species can hybridize, it is important to plant the species found naturally in your area to help preserve the distinct genetic identities and ecological roles of these plants. In Polk and Highlands counties, choose Conradina brevifolia. Along the central and southern east coast, choose Conradina grandiflora. Ask your nursery supplier for the species native to your locale.



Conradina grandiflora in a landscape



Gulf fritillary with Conradina grandiflora



planting and care of Twinflower

If you are looking for an easy, low-maintenance groundcover, consider Oblongleaf Twinflower (Dyschoriste oblongifolia). This perennial wildflower has an extended bloom period and is adaptable to a variety of conditions. It prefers open, sunny areas but can tolerate shade (although its bloom yield will be lower). It typically blooms spring through fall and is commonly found in dry to moist habitats of sandhills, flatwoods and upland mixed forests throughout peninsular Florida and into the central Panhandle. Of the three native Dyschoriste species, Oblongleaf Twinflower is the largest and most commonly available for purchase.

Other native Twinflower species are Pineland Twinflower (*D. angusta*) and Swamp Twinflower (*D. humistrata*). Both species are rather diminutive compared with *D. oblongifolia*. Swamp Twinflower typically blooms in spring. It makes an excellent groundcover and turf replacement in moist to wet soils and does very well in shady well-



Oblongleaf Twinflower

drained soils. It also adapts to seasonally dry conditions.

Pineland Twinflower is more common in southern Florida, where it can bloom year-round.

Twinflower is so-named because its flowers are born in pairs ("twins") atop the plant's stems. It is also referred to as Snakeherb.

Description

Oblongleaf Twinflower grows to between 6 and 10 inches tall and is spreading. Its small 1-inch blooms are light-blue to purple and funnelshaped, with five lobed petals. The lower petal bears dark marks or streaks that extend into the throat. Each bloom has four stamens and five calyces. The calyces are lobed, pubescent and subtend the flower. Twinflower's simple leaves are linear, dark green, pubescent and oppositely arranged on thin stems.

Both Swamp and Pineland Twinflower have smaller flowers than Oblongleaf Twinflower. Swamp Twinflower's leaves are rounder and have a succulent appearance, while Pineland's leaves are linear.

Planting

Twinflower forms dense colonies by underground runners. It is also a prolific self-seeder and, in the best conditions, may require regular weeding of seedlings to keep it under control.

All three native Twinflower species are well-suited for life in a hanging basket or pot. Pay attention to soil moisture levels, particularly with Swamp Twinflower, as it will quickly begin to perish if it dries out.

Butterflies and Bees

Twinflower's nectar attracts a few species of butterflies, including the Malachite and White Peacock. It is a host plant for the Common Buckeye. Look for small pale-green eggs laid singly on leaves. Common Buckeye caterpillars eat both leaves and flowers and may be seen on the plants year-round and especially in fall.

Leafcutter, bumble and honey bees are also attracted to the flower.

Pictured: Bee fly on Dyschoriste oblongifolia





Seeds

Seeds are not available commercially at this time.

Plants

Twinflower is often available at nurseries that specialize in native plants. It should be planted 18–24 inches apart as it spreads quickly. To propagate, take stem cuttings or divide clumps in summer.

Hardiness

Twinflower is suited for zones 8a-10b.

Care

In winter, it is semi-dormant and can be trimmed to 3 inches or mown annually to freshen. Plants will be dormant in areas receiving frost (and usually in North Florida) but will quickly recover in spring.

Site conditions

Oblongleaf Twinflower prefers full sun and well-drained soils. Planting in partial shade will result in a less dense cover. Swamp Twinflower is acclimated to moist soils and partially shady conditions. Pineland Twinflower prefers well-drained calcaerous or sandy soils. Once established, it is very drought tolerant.

One of the best uses for this plant is as a low groundcover near sidewalks, walkways or naturalized areas. The plant spreads by underground rhizomes and by self-sewn seed. It will flower intermittently spring through fall. Twinflower is not salt tolerant, making it a poor candidate for coastal landscapes.



The throat and lower petal bear dark streaks.



Flowers are typically born in pairs or "twins."



Pineland Twinflower



Twinflower makes an excellent groundcover and turf replacement.



planting and care of Verbena

Three native Verbena species occur in Florida. Two of them — Beach Verbena (*Glandularia maritima*) and Tampa Verbena (*G. tampensis*) — are state-listed as endemic and endangered. Both are attractive and can be used in landscapes.

Description

Tampa Verbena occurs on the east and west coasts of peninsular Florida, from Lee to Levy counties on the west side and from Volusia to Indian River counties on the east. Beach Verbena is found mostly on the east coast — from St. Johns to Monroe counties — but also has been documented in Levy County on the west coast.

Verbena produces clusters of deep pink to lavender flowers yearround, although the most prolific flowering occurs in spring and summer. Its flowers — along with its adaptable nature, and attractive dark-green, diamond-shaped leaves — have earned it a place in many gardens. Both species are short-lived evergreen perennials, lasting up to three years. Tampa Verbena reaches up to 2 feet in height with a spread of 3 to 4 feet. Beach Verbena is a low-growing, sprawling plant with a maximum height of 8 inches and a spread of 2 feet or more when mature.

Planting

Use Verbena as a low groundcover in a bed, on a woodland edge, or in a container or above-ground planter. It is particularly striking when used in masses. Plants should be spaced from 3 to 4 feet apart to allow for their spread. They may be planted anytime between February and December.

Seeds

Verbena does not reseed readily in landscapes. Seeds of these species are not usually available commercially.



Tampa Verbena

Plants

Plants are available at native nurseries and some mainstream retail nurseries.

Hardiness

Beach Verbena is suited for zones 9a-11, while Tampa Verbena does best in zones 9a-10b.



Butterflies and Bees

Verbena is a good nectar source for a variety of butterflies and moths, including Gulf Fritillaries, hawkmoths and Longtailed Skippers. It is also attractive to miner bees and long-tongued bees such as bumble and orchid bees.

Pictured: Long-tailed Skipper (left) and Gulf Fritillary (right), both on Tampa Verbena.





Care

Verbena is relatively free of pests and disease, provided it isn't irrigated too much. Light pruning may be necessary in more formal settings; otherwise, plants are maintenance-free.

Site conditions

Beach Verbena adapts to a variety of acidic and alkaline soils, including clay, loam and sand. Try it in dry, low-nutrient soils where other plants have trouble growing; do not over-irrigate it. Plant in full sun. Because it's found in coastal communities, its salt and drought tolerance is high.

Tampa Verbena prefers more moisture and can adapt to full sun and partial shade. It does well in a container, provided it receives sufficient sun and is watered often.

Verbena can sustain freeze damage in northern counties.



Zebra Longwing on Tampa Verbena

Beach Verbena

tion by Sharon Beg

Tampa Verbena



Tampa Verbena in a mixed wildflower planting

Notes

There are many non-native verbenas available. **Be sure** to ask your nursery supplier for native species.

Verbena species may hybridize, so it is important to plant the species found naturally in your area to help preserve the distinct genetic identities and ecological roles of these plants.



Tampa Verbena



planting and care of St. John's Wort

Thirty-one species of St. John's Wort (*Hypericum*) are found in Florida. All are native, and several are on state and federal endangered plant lists. In nature, look for St. John's Wort in sandhill and flatwood habitats, as well as on the margins of cypress swamps and marshes.

Species vary in the appearance of their leaves, but their reddish stems and delightful yellow flowers are constants. Some have short needlelike leaves, while others might look as if they belong to a different genus entirely.

Description

St. John's Wort is an evergreen perennial shrub known for its outstanding ornamental features. With sturdy reddish brown twigs, species in this genus can grow from 1 to 3 feet tall and have spreads of 2 feet or more. Species found at native nurseries typically



Myrtleleaf St. John's Wort

have 1-inch yellow flowers with four or five petals that contrast with their dark green, needlelike foliage. Plants of most species flower in summer.

Planting

St. John's Wort can be used a foundation plant, along a border or edge, or in a mass planting. Space plants from 24 to 36 inches apart.

Seeds

Native ecotype seeds are not available commercially but may be collected from plants when dry. Sow directly in the garden in the fall for spring growth.

Plants

Atlantic St. John's Wort (H. *tenuifolium*) is the most typical species encountered at nurseries and plant sales. It likes dry to moist soils and usually doesn't need any pruning, maintaining a delightful, mounding shape on its own. Its summer blooms last a month or more. St. Andrew's Cross (H. hypericoides), found in nature in moist shaded areas, has an elegant, feathery form and produces three seasons of flowers. For a showy addition to the garden, consider Fourpetal St. John's Wort (H. tetrapetalum), which has larger, four-petaled flowers; and Mrytleleaf



Butterflies and Bees

Hypericum species are attractive to polyester, yellow-face, large carpenter, bumble, leafcutter, resin and sweat bees, as well as to Gray Hairstreak butterflies, whose caterpillars feed on its seed capsules.

Pictured: Bee fly (left) and Green Orchid bee (right) on St. John's Wort.





St. John's Wort (*H. myrtifolium*), which has blue-green foliage and rich yellow flowers.

Hardiness

The four St. John's Wort species covered in this section are suited for zones 8a-10b.

Care

These hardy perennials are easy to care for once established. A light pruning in winter, if needed, is all established plants require to maintain a desired shape. Give wetland species a drink after a few days without rain.

Site conditions

St. John's Wort does best when planted in full sun to part-shade in sandy soils. However, they can adapt to a variety of other soils, including clay and loam, and acidic and lightly alkaline soils. Plants are not salt tolerant and are moderately drought tolerant once established.

Keep wetland species moist by adding them to a rain garden or moist site.



St. Andrew's Cross



St. Andrew's Cross seeds

Note

The St. John's Wort that is promoted as a supplement for use in treating depression is a non-native species. According to Dan Austin in his book, *Florida Ethnobotany*, using St. John's Wort can lead to dermatitis or photosensitization due to a hypericin compound found in the plants.

Some species may be toxic to livestock.



Fourpetal St. John's Wort



Atlantic St. John's Wort makes a delightful mound in the landscape.



Woody branches of Atlantic St. John's Wort



planting and care of Wild Petunia



Wild Petunia

Having the "blues" usually connotes a bad mood, but in the case of Florida wildflowers, the blues are a must-have in every garden. Blue flowers provide a cool complement to the bright yellows and reds that typically steal the show.

Wild Petunia (*Ruellia*) is an easyto-grow, lavender- to blue-flowered native that works well in most conditions. It is endemic to the eastern United States, where its range extends from New Jersey southward and west to Texas. In Florida, it is found in sandhills, flatwoods and moist to wet hammocks in about 52 counties. There are five species of Ruellia native to Florida, but Ruellia caroliniensis is the most common. both in the wild and commercially. Other species include Ciliate Wild Petunia (Ruellia ciliosa) and Thickleaf Wild Petunia (Ruellia succulenta), endemic to South Florida. A non-native species of Ruellia is commonly available for purchase but should not be used as it is invasive. (See note on next page for more information.)

Description

Wild Petunia is a long-lived perennial that can attain a height of 12 to 18 inches. Its 5-petaled blooms are tubular, grow to about 1 to 2 inches, and appear in clusters along multi-branched stems. They vary in color from pale lavender to light blue and resemble the common garden petunia, although they are not related. Its simple leaves are green with an ovate to elliptic shape and are oppositely arranged on stems. *R. caroliniensis* is easily distinguished from other Ruellia species by the long, pointed sepals and bracts that surround the base of the flower.

Wild Petunia's showy flowers last only one day, but successional blooms keep the plant looking fresh with continuous flowers spring through fall. In warmer parts of the state, it may bloom year-round with smaller flowers. In colder climes, Wild Petunia may be deciduous, dying back in winter, but returning quickly in spring.

Planting

Wild Petunia does well in a mixed wildflower bed of medium-sized plants and grasses. In northern Florida, it is not recommended for a mass planting as it will be a patch of deciduous stems during the winter. There, it is perfect for



Butterflies and Bees

Several butterfly species, including the White Peacock, Malachite and Mangrove Buckeye, are known to gather nectar from Wild Petunia. It is a larval food source for the Common Buckeye. The blue corollas attract a variety of bees, including bumble bees, leafcutter bees and honey bees.

Pictured: Pearl Crescent (left) and Whirlabout and sweat bee (right) on wild petunia blooms.





interplanting with other wildflowers and grasses. It has a strong root system, making it easy to transplant.

Plant Wild Petunia 12 to 15 inches apart. Or try growing this showy plant in a hanging basket or large, well-drained container, as pests do not seem to bother it. Wild Petunia is one of the few wildflowers that will bloom in partial to slightly denser shade.

Seeds

Wild Petunia seeds are generally not commercially available. To grow this plant from seed, collect mature capsules in a paper bag in mid- to late summer. Seeds gradually ripen on the plant over a period of weeks, so visit plants several times to check the capsules. They will turn from bright green to brown when mature.

Stem cuttings are also an easy way to propagate Wild Petunia. Take 3- to 4-inch cuttings in the summer from flexible stems. Plants root easily in 3-4 weeks.

Plants

Plants are widely available yearround from native nurseries in a variety of pot sizes. They can be planted throughout the growing season. In North Florida, plant after danger of frost. Wild



Wild Petunia is a profuse bloomer that is great for attracting butterflies like the Gulf Fritillary.

petunia is drought tolerant after establishment.

Hardiness

Wild Petunia is suited for zones 8a-10b.

Care

Wild Petunia may need trimming about halfway through its growing season to promote new growth and blooms. This can be done by removing 3-4 internodes (4-6 inches) with scissors or clippers. Annual pruning may be required to remove old stems.

Wild Petunia is a prolific selfseeder and may form colonies over time. (Like other members of the Acanthaceae family, its mature seed capsules will explode open, sending seeds far from the parent plant.) Unwanted plants can be easily removed or transplanted.

Site conditions

This plant is one of our most versatile and adaptable wildflowers for varied sun and soil moisture conditions. It will thrive in a moderate to dry, sunny location but also tolerates shade and even wet, mucky soils. Establishing Wild Petunia in shadier locations will result in plants that appear lanky with fewer blooms. Plants are reported to have some salt tolerance.

Note

Although there are some sterile non-native *Ruellias* in the nursery industry, the widely grown purple **Mexican Petunia** (*Ruellia simplex*; **synonyms** *R. brittoniana* and *R. tweediana*) **should be avoided** as it may reproduce via underground rhizomes. As a Category I invasive exotic species, it has spread into municipal and natural areas, displacing native species and changing community structures or ecological functions. For more information on Mexican Petunia, visit these websites:

- Florida Exotic Pest Plant Council (www.fleppc.org)
- University of Florida, Institute of Food and Agricultural Sciences, Center for Aquatic and Invasive Plants (plants.ifas.ufl.edu)



Wild Petunia is best in a mixed planting.



planting and care of Skullcap

For such a diminutive wildflower, Helmet Skullcap (*Scutellaria integrifolia*) makes a large impact when it blooms in late spring and summer. Also known as Common Skullcap, it is ideal for a wildflower border or nestled within a pond or rock garden. Although a shortlived perennial, its adaptability is contributing to its surge in popularity with home gardeners. *Scutellaria* is Latin for dish, possibly describing the lower plate-like petal; and *integrifolia* refers to its smooth leaf margins.

The natural distribution of Skullcap extends to all of Florida except the southernmost tip (in Zone 10a-11b). It is frequently found in the Panhandle, and in North and Central Florida in the moist soils of sandhills, pine flatwoods and upland mixed forests, as well as along marsh and swamp edges.



Helmet Skullcap

Skullcap can also be found through most of the eastern US.

A closely related species, Florida Scrub Skullcap (*Scutellaria* *arenicola*) can be distinguished by its crenate leaf margins. The other nine native Florida Skullcap species are only rarely or occasionally found in their specific habitats.

Description

Helmet Skullcap is a 12- to 24-inch perennial that dies back in winter. It begins as a basal rosette of bright green, arrow-shaped leaves with coarsely toothed margins. From the rosette, many branched stems emerge. Stem leaves vary from elliptical to arrow-shaped and are oppositely arranged. Upper leaves are more narrow and have entire margins.

Flowers are two-lipped and resemble snapdragon blooms. They occur on terminal racemes and are very showy with colors ranging from sky blue to violet.



Butterflies and Bees

Helmet Skullcap flowers are visited by a wide range of bees whose bodies can fit between the lower and upper lips in order to reach the nectar. This includes leafcutter, carder and cuckoo bees, as well as some bumble bees. Sweat bees are also known to visit Helmet Skullcap. but they are nectar robbers and will pierce the base of the corolla to access nectar. Like many other species in the Lamiaceae (mint) family, Helmet Skullcap flowers are only visited sporadically by butterflies. Species known to utilize Helmet Skullcap include Gulf Fritillary, Spicebush Swallowtail and Eastern Black Swallowtail. Pictured: Gulf Fritillary (left) and Gray Hairstreak (right) on Skullcap blooms.





The lower lip consists of three fused lobes with white splotched centers extending down the throat. A dark strip guides insects toward desirable nectar. Upper petals are fused and curved, forming a small hood or helmet-like structure. Flowers are born in the axils of the bract-like upper leaves.

Planting

This lovely little wildflower can be introduced into your garden anytime using plants or seeds. It produces a large amount of seeds and seedlings, thus plantings will naturally and quickly increase in size.

Hardiness

Helmet Skullcap is suited for zones 8a-9a.

Seeds

Seeds are small, shiny and black and are produced in nutlets. Seeds are mature when the nutlet coat turns light brown and becomes papery. The plant may hold flowers and seeds at the same time. Dried seeds can be stored up to six months, then sown when temperatures reach 70°F. Germination may take up to 30 days.

Helmet Skullcap seeds are often available from the Florida Wildflower Growers Cooperative.

Plants

Nurseries that specialize in native plants sell Helmet Skullcap almost year-round. It is generally available in 4-inch or 1-gallon pots.

Care

Helmet Skullcap readily spreads by seed. Excess seedlings can be easily removed or transplanted into small pots. To avoid having to weed out seedlings, prune plants back after flowering to limit seed production. Disease and pests are not a problem with this wildflower.

Site conditions

Prized for its early spring flowering, Helmet Skullcap is great in the front of a mixed wildflower bed. This adaptable plant can be used in well-drained to moist soil and is reported to be somewhat drought tolerant. A pH of 5-6.5 is ideal. It is best suited to sunny or lightly shaded sites. Plants will be dormant in winter, dying back to the rootstock. Helmet Skullcap is not salt tolerant.



Flower stalks emerge from a basal rosette.



Flowers are two-lipped. The lower lip consists of three fused lobes with a white center.





Helmet Skullcap is ideal as a border plant.



Gulf Fritillary on Helmet Skullcap



planting and care of Senna



Chapman's Senna

Senna is a genus of diverse flowering plants native throughout the tropics. Four species are native to Florida, and two — *S. ligustrina* and *S. mexicana* var. *chapmanii* are commercially propagated. Both are great for attracting pollinators and adding a touch of the tropics to the home landscape.

Senna mexicana var. *chapmanii* is known commonly as Chapman's

Wild Sensitive Plant, Chapman's Senna and Bahama Senna. It occurs in pine rocklands, coastal strands and along hammock edges in only Miami-Dade County and the Florida Keys. However, it can be planted in landscapes as far north as Central Florida. Due to its limited natural range, it is a state-listed threatened species.

Senna ligustrina, known as Privet Wild Sensitive Plant or Privet Senna, naturally occurs in coastal counties from Brevard south on the east coast, and from Gilchrist and Levy south on the west coast. It can be found along hammock edges and in disturbed areas.

Description

With an abundance of showy yellow flowers gleaming against a dark background of evergreen foliage, both Privet and Chapman's Senna make exceptional ornamental plants. Chapman's Senna is a robust evergreen perennial that can take on a variety of shapes — from upright to nearly prostrate and sprawling. Its flowers have bright, buttery-yellow petals with subtle red venation. They are born on stalked clusters in autumn and spring. Its leaves are pinnately compound and alternately arranged. Each leaf has 8 to 10 dark green elliptic leaflets.

Privet Senna is a fast-growing shrub that can reach a height of 10 or more feet. It is lanky, with a thin crown and many short side branches. If allowed to self-sow, it may form a dense colony. At maturity, Privet Senna tends to bend under its own weight. Its flowers are lemon yellow. Its foliage is similar to that of Chapman's Senna, with pinnately compound leaves that are alternately arranged, but its leaflets are linear- to lanceshaped and more numerous. Overall, its foliage is less dense. Privet Senna typically blooms from autumn to late spring but may bloom sporadically throughout the year.



Butterflies and Bees

Senna flowers are visited by sweat, resin, cuckoo, leafcutter and bumble bees for their pollen and nectar. Butterflies such as the Sleepy Orange, Little Yellow, and Cloudless, Orange-barred and Statira Sulphurs, are also frequent visitors. All members of the *Senna* genus are larval host plants for Sulphur caterpillars.

Pictured: Sulphur caterpillars on Privet Senna (left) and Chapman's Senna (right).





Planting

Plants are typically available in 1- and 3-gallon pots. Privet Senna is best used as a specimen shrub. Chapman's Senna may also be used as a specimen shrub, but works best planted in mass and as a border planting. Pruning is recommended in all uses.

Hardiness

Privet Senna is suited for zones 9a-11. Chapman's Senna is best for zones 10a-11.

Seeds

Senna seeds are generally not available commercially. Chapman's Senna and Privet Senna are prolific self-seeders. Seeds will typically sprout the following spring and may produce flowers within the first year.

Plants

Privet and Chapman's Senna plants are generally available from nurseries that specialize in native plants.

Care

As Sennas are tropical species, they are not cold tolerant and may die if exposed to below-freezing temperatures. (Seedlings are slightly more resilient and may survive colder temperatures than mature plants.) Sennas require occasional pruning — either by hand or by caterpillar; otherwise, they can become leggy and start to look somewhat messy. Removal of brown seed pods will also help the plants remain attractive when not in flower and will help mitigate the bounty of seedlings that may otherwise occur. If left to self-seed, unwanted seedlings can easily be weeded out.

Site conditions

Plant Privet Senna and Chapman's Senna in dry to slightly moist, well-drained soils. As with most members of the legume family, both species can tolerate nutrient-poor soils but do better with some organic content. Full sun to light shade is best for both species. Privet Senna can tolerate a little more shade than Chapman's Senna — up to half a day — but neither will flower if not given several hours a day of direct sunlight. Despite being native to coastal areas, Privet Senna not salt tolerant (although Chapman's Senna is).

Notes

Many non-native species of Senna are sold commercially. In particular, Senna pendula (commonly known as Christmas Senna or Butterfly Senna) is often recommended for butterfly gardens; however, it is a FLEPPC-listed Category I invasive species, which means it has been known to alter native plant communities and should be avoided. For more information on Butterfly Senna, visit the Florida Exotic Pest Plant Council website (www.fleppc.org).

Members of the *Senna* genus were once considered part of the *Cassia* genus, but were recently separated as a result of DNA analysis.



Privet Senna



Chapman's Senna in lakeside landscape



Privet Senna



Sulphur caterpillar on Privet Senna flowers



planting and care of Climbing & Elliott's Aster

With a bounty of beautiful blooms, there is no better genus of wildflowers than Aster (*Symphyotrichum* spp.) for attracting pollinators to your landscape.

Of the 26 species of Aster native to Florida, several are wellsuited for use in landscapes and commercially available. Climbing Aster (S. carolinianum), as the name suggests, is a sprawling, vinelike shrub. It occurs naturally in coastal hammocks, wet flatwoods and along the edges of swamps, springs and streams. Elliott's Aster (S. elliottii) is an erect, multibranched herbaceous perennial that occurs in wet flatwoods, swamps and freshwater marshes. Both species can be found nearly throughout the peninsula and into the eastern Panhandle, although Climbing Aster has a slightly greater distribution.

As fall- and winter-flowering species, Climbing Aster and Elliott's Aster help extend the options for nectar and pollen available to



Barred Yellow Sulphur on Climbing Aster

pollinators. Climbing Aster is one of the few wildflowers that will bloom in December.

Description

Climbing Aster's habit is vinelike. Its limbs can extend to 8 feet or more. Flowers are 1 to 2 inches in diameter and have a very sweet fragrance. They have dense centers of yellow-orange disk florets. Ray florets vary in color from lavender to purplish-pink to violet. Leaves are grayish-green, and elliptical to ovate with entire margins. Elliott's Aster is a deciduous shrub that can grow to 4 or 5 feet tall. Its flowers are about 1 inch in diameter, with pale, lavender ray florets surrounding a center of yellow-orange disk florets. Flowers are born in dense, crownlike clusters. Leaves are shiny and elliptical to lance-shaped with toothed margins.

Both species are perennials that are acclimated to moist conditions. However, they are adaptable to most landscapes except those exposed to saltwater. Flowers are more abundant when the plants receive sufficient sunlight.

Climbing Aster blooms in the fall and continues into January; it may bloom year-round in favorable conditions. Elliott's Aster typically blooms in late fall. Paired in the landscape, these two plants will ensure continuous blooms throughout the year.

Planting

The sprawling nature of Climbing Aster makes it perfect for informal

Butterflies and Bees

The flowers are a source of nectar and pollen for myriad native bees, including polyester, sweat, cuckoo, leafcutter, mining, small carpenter, long-horned, digger, bumble and miner bees, as well as honey bees.

Butterflies and moths also love Climbing and Elliott's Aster: Monarchs, Pearl Crescents, Skippers, Fritillaries, Common Buckeyes, Gray Hairstreaks, Swallowtails, Sulphurs and many others have been known to frequent the flowers for nectar.

Pictured: Monarchs flock to Climbing Aster.





landscapes. Its vinelike habit is suitable for growing along a trellis or fence. Elliott's Aster is best for a naturalistic planting, and must be frequently maintained in a more formal setting. Both species are prolific self-seeders. Elliott's Aster will also spread by suckering.

Hardiness

Climbing Aster is suited for zones 8a-11. Elliott's Aster is best for zones 8a-10a.

Seeds

Elliott's Aster seeds are available from the Florida Wildflower Growers Cooperative. Sow in fall.

Plants

Climbing Aster is generally available from nurseries that specialize in native plants. Elliott's Aster is becoming more available — ask for it.

Care

Cut back Climbing Aster in late winter after flowering has ceased to encourage future blooms and healthy growth. Elliott's Aster can sucker aggressively and can form dense colonies if allowed. Suckers can be easily removed, but must be tended to throughout the growing season to keep them from overtaking and outcompeting other species. Both species can be problematic in formal landscapes as they can take on a tangled or chaotic appearance if not maintained; however, they can be pruned to any shape and also perform well as a hedge. Periodic pruning of both species will encourage blooming.

Site conditions

Both Elliott's and Climbing Aster prefer sandy, loamy or organic soils that are moist, although they can tolerate moderately dry soils. Plant in full sun to partial shade (access to full sun will yield the best flower display). Neither species is salt tolerant.

Other species

Several other species of *Symphyotrichum* may be available from native nurseries and suitable for landscapes. Rice Button Aster (*S. dumosum*) is much smaller than Elliott's, growing to 2-3 feet tall and producing small, whitishlavender flowers. It suckers in single stalks, not in mass. Georgia Aster (*S. georgianum*) is one of



Monarch butterfly on Elliott's Aster

the most striking of the genus, with cornflower blue to purple ray florets and contrasting white anthers. It requires a bit more moisture and sun than *S. elliottii* or *S. carolinianum*, but is adaptable.

Eastern Silver Aster (*S. concolor*) is an upland species that is very drought tolerant. Its flowers are deep violet and born in spring on the ends of long stalks. It gets its name from its silvery-green foliage. Walter's Aster (*S. walteri*) is also an upland species that prefers dry, well-drained soils. Its flowers are smaller and have fewer ray florets and more distinct disk florets. It should not be planted south of Central Florida.



Climbing Aster in January landscape



Climbing Aster flowers and flower buds



Young Elliott's Aster plant



Establishing a small wildflower meadow from seed







Follow these 12 steps to establish a small meadow of native wildflowers:

1. Location, Location, Location

Choose a site that is sunny most of the day, has well-drained soil, and is free of weeds.

2. Determine suitable wildflower species

Pictures and descriptions of wildflowers that are adapted to your area of Florida are listed at the Florida Wildflower Seed and Plant Growers Cooperative website, www.FloridaWildflowers.com. Common wildflowers are generally adaptable to a range of gardening conditions and are generally listed as suitable for North, Central or South Florida where they will thrive naturally in nature. Seeds can be purchased in small individual packets or as garden mixtures.

3. Determine when to sow seeds

Sow seed from

- mid-September to mid-October in North Florida
- mid-October to end of December in Central Florida
- November through January in South Florida

Planting can be extended to mid-April by using irrigation. Planting during hot months should be avoided because the soil's surface dries out too quickly.

4. For Areas with Turfgrass

While some gardeners prefer to chemically eradicate weeds with glyphosate, the Foundation recommends soil solarization as the best means of obtaining a weed-free planting site. This process takes time and patience, and must be done from June to mid-August.

First, remove existing turf and weeds with a shovel. Then till the soil 12 to 18 inches deep, breaking up soil clods (the finer the soil texture, the better). Remove sticks, roots and other debris brought up by tilling. Rake the surface of the area until smooth, then water until slightly moist but not soggy. Cover with clear plastic that is 3–6 mil thick. (1mil is equal to .001 or V_{1000} inch)/ To prevent wind from lifting the sheet, bury its edges in up to 12 inches of soil.

Solarization takes about six weeks. Leave the plastic in place until the seed is sown.

5. For Areas with Bare Soil

Scratch or firm up soil. For sites with bare soil, soil-to-seed contact is critical, so one day before seeding, or just prior to seeding, lightly scratch firmer soils with a rake. Sandy soils might have to be made more firm by rolling to ensure that seeds do not sink too deep.



The State Wildflower license plate supports Florida native wildflower planting, education and research. Get the plate and help fill our state with wildflowers!

W23

6. Sow Seeds

This method distributes seeds evenly over the garden:

- Fill a large bucket about halfway with sand or vermiculite; slightly moisten it.
- Add half of the total seeds and mix thoroughly.
- Starting at one end of the garden, spread the mixture evenly over the site.
- Repeat the above steps with the other half of the seeds, but start spreading them from the opposite end of the plot.

7. Place Seeds in contact with Soil

Walk over the site to ensure good seed to soil contact. If the area is larger, consider renting a sod roller. Seeds should remain on top of the soil or be covered ½-inch to ¼-inch deep at most. Generally, the smaller the seed, the shallower it needs to be planted. Most seeds need light to germinate!

Water seeds gently after planting to help settle them in the soil, then wait until spring for further irrigation if rain is not sufficient for growth.

8. Be Patient

Though some species will germinate quickly, others may need to rest in the soil for 3 to 4 months. In that time they will naturally receive the water and fluctuating temperatures that will stimulate their emergence at the right time in early spring.

9. Irrigate

Keep the planting site moist, but not wet. For loamy soils, that might mean watering 2 to 4 times per week with about 1/4 to 1/2 inches of water; sandy soils might need daily watering. Monitor the soil for moisture and adjust watering accordingly. After wildflowers germinate, irrigate with about 1/2-inch of water only if they show signs of drought stress.

10. Keep Out Weeds

To minimize weeds, remove them by hand after wildflowers have emerged and been identified. To help identify your wildflowers, photos of common young plants showing leaf shape and arrangement can be found on the Florida Wildflower Growers Cooperative's website at www.floridawildflowers.com/pages/Planting-Information.html.

11. Do Not Fertilize

Many of Florida's native wildflower species are adapted to and perform well in soils with low fertility. Excess fertilization will promote vegetative growth over flowering, might make wildflowers more susceptible to insect and disease pests, and will promote weed growth. If plants appear nutritionally deficient during the growing season, a light layer of compost or several applications of a half-strength liquid fertilizer can be applied to correct the problem.

12. Wait Until Seeds Have Matured

Your wildflowers will reseed themselves if given the opportunity, so wait until seeds have matured before deadheading or mowing. For many species, seeds need 2 to 4 weeks to mature after plants bloom. Generally, seeds can be dried, stored in plastic bags at 40F, and replanted in the fall in your garden.



Purchase Florida native wildflower seeds and seed mixes through our store at www.flawildflowers.org/shop.

Florida's wildflowers

- Provide habitat for bees responsible for every third bite of food we eat
- Curb water use in landscapes
 - Reduce water and air pollution
 - Beautify communities and roadsides
 - Contribute to a sense of place that is uniquely Florida

What you can do

- Landscape with Florida native wildflowers and plants
- Stop using pesticides, which can harm bees and other beneficial insects
- Greatly reduce use of fertilizer, which harms waterways and lakes
- Ask your county to preserve roadside wildflowers
- Work with lawmakers to preserve and conserve natural resources and lands

Resources

www.FlaWildflowers.org www.PlantRealFlorida.org www.FloridaWildflowers.com www.FNPS.org

