

Wetland Sedges of *Florida*

An Identification Guide



Wetland Sedges of Florida: An Identification Guide

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PURPOSE OF THIS GUIDE

Sedges comprise a large group of graminoids that are found in nearly all wetlands in Florida. These include several native sedges, but nonnative sedges have also been documented in many wetland ecosystems. These invasive species pose threats to Florida's wetlands, but correct identification can be difficult due to the unique characteristics of sedges and their similarity to some grass species. To facilitate identification in the field, we have created a guide to 11 common wetland sedge species found in Florida.

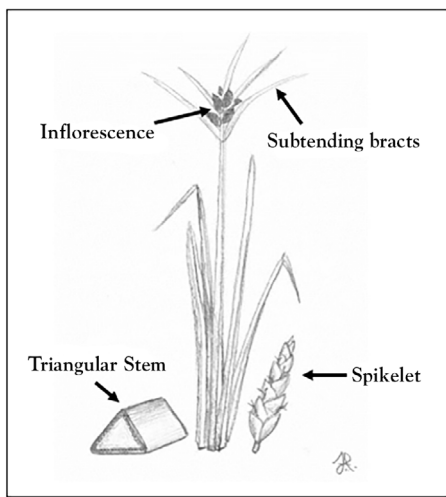
We refer to Florida Exotic Pest Plant Council (FLEPPC) Category I and II invasive species. Category I species are those which alter native plant communities by “displacing native species, changing community structures or ecological functions, or hybridizing with natives.” Category II species are those which “have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species.” We also reference the UF/IFAS Assessment of Non-Native Plants in Florida's Natural Areas. This resource evaluates the invasion risk of non-native species found in the state or proposed for introduction.

For the complete list of FLEPPC Category I and II species, visit: <http://www.fleppc.org/list/list.htm>

For the database of the UF/IFAS Assessment of Non-Native Plants in Florida's Natural Areas, visit: <http://assessment.ifas.ufl.edu/>

BASIC CHARACTERISTICS OF SEDGES

1. **Stem (culm)** – sedges usually have triangular stems in cross section
2. **Leaves** – sedge leaves are typically V or W shaped
3. **Subtending bracts (involucral leaf)** – modified leaf arranged on the plant just below the inflorescence
4. **Achene (nutlet)** – small, hard fruit (usually needed to correctly identify sedges)
5. **Contra-ligule** – a membrane on the leaf sheath opposite the leaf
6. **Inflorescence** – cluster of spikelets (reduced flowers on a central axis)
 - a. **Corymb** – lower flower stalks are longer, creating a flat-topped appearance
 - b. **Panicle** – multi-branched inflorescence
 - c. **Spike** – flowers directly attach to the stem of the plant
 - d. **Spikelet** – a small spike with reduced flowers; the basic floral unit of a sedge
 - e. **Umbel** – flower stalks arise from a common point (can be flat-topped or rounded)



Frank Prince, University of Florida



Alex Onisko

SAWGRASS

(*Cladium jamaicense*)



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Sawgrass is native to southeastern coastal states and is found in swamps, marshes, and lakeshores. It is a perennial species that reproduces primarily through rhizomes; plants do reproduce sexually, but seed production is variable and viability is typically low.

Usually grows in dense stands. Stems are hollow, only slightly 3-angled, and can reach 3 m in height. Leaves reach 1-3 m in length, 13-19 mm in width, and have saw-toothed margins. The stiff leaves have a gray-green coloring.

Inflorescences are reddish-brown panicles reaching 1 m in length that are held above the leaves. Panicles are multi-branched, with each branchlet possessing 2-6 spikelets on its end. Branches and branchlets often droop. Achenes are wrinkled, near-spherical, with one pointed end. Achenes are produced from spring through summer.

Christman, S. 2017. Floridata.
<https://floridata.com/plant/1290>

Uchytel, R.J. 1992. *Cladium jamaicense*. In: Fire Effects Information System. USDA, Forest Service, Rocky Mountain Research Station.
<https://www.fs.fed.us/database/feis/plants/graminoid/clajam/all.html>

UF/IFAS Center for Aquatic and Invasive Plants. 2018.
<https://plants.ifas.ufl.edu/plant-directory/cladium-jamaicense/>

CUBAN BULRUSH

(*Cyperus blepharoleptos* Syn. *Oxycaryum cubense*, *Scirpus cubensis*)



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Cuban bulrush is native to South and Central America. It can be found as a marginal or floating mat-forming species in lakes, streams, and freshwater marshes. It is a perennial species that reproduces both vegetatively (rhizomes and stolons) and through seeds.

Stems reach up to 1 m in height and are sharply 3-sided. Stolons are covered in scales. Leaves are thin (up to 7 mm in width) and grow from the base of the plant, reaching up to 110 cm in length.

Inflorescences are umbel-like with 1-13 round to oval-shaped heads (1-2 cm in diameter) and are subtended by 2-6 long bracts. Spikelets are reddish brown. Achenes are reddish brown and oval-shaped and appear from spring through fall.

Flora of North America. 2018.

http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242357856

UF/IFAS Center for Aquatic and Invasive Plants. 2018.

<https://plants.ifas.ufl.edu/plant-directory/oxycaryum-cubense/>

McLaurin, C.S. and R.M. Wersal. 2018. *Cyperus blepharoleptos* Steud. U.S. Geological Survey, Nonindigenous Aquatic Species Database, Gainesville, FL

<https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=2819>

HASPAN FLATSEEDGE

(*Cyperus haspan*)



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Haspan flatsedge is native to Florida and is found in swales, marshes, and on pond shores in moist soils. This perennial species spreads through seeds and short rhizomes.

Leaves are flat to V-shaped and are usually reduced to sheaths. Stems reach to about 0.7 m and are strongly 3-sided. This species is similar to dwarf papyrus. The subtending bracts of haspan flatsedge are horizontal to ascending at 30°-60°.

Inflorescences are loosely digitate (shaped like a spreading hand). Secondary and sometimes tertiary rays are present. Spikelets are dull reddish to greenish brown and are linear-lanceoloid/compressed. Achenes are white or reddish brown and occur during the summer.

Atlas of Florida Plants. Institute for Systemic Botany. 2018.

<http://florida.plantatlas.usf.edu/Plant.aspx?id=2747>

Flora of North America. 2018.

http://efloras.org/florataxon.aspx?flora_id=1&taxon_id=200026691

UF/IFAS Center for Aquatic and Invasive Plants. 2018.

<https://plants.ifas.ufl.edu/plant-directory/cyperus-haspan/>

UMBRELLA FLAT SEDGE

(*Cyperus involucratus*)



Douglas Rogers



Douglas Rogers



Douglas Rogers

Umbrella flat sedge is native to Africa and listed as a Category II invasive exotic by the Florida Exotic Pest Plant Council. The UF/IFAS Assessment recommends using it with caution in all parts of the state. Umbrella flat sedge is perennial and spreads through rhizomes and seeds. It can be found in disturbed wetlands, lakes, and rivers.

Grows in clumps, reaching to 2 m in height. Leaves are reduced to basal sheaths. Stems have rounded edges.

Inflorescences are composed of stalked spikelet clusters with 8-15 spikelets each. Inflorescences are subtended by 12-25 large, leaf-like bracts reaching up to 25 cm in length. These bracts are arranged in an umbrella-like shape and are more conspicuous than the inflorescence. Achenes are small, 3-angled, and brown; they are produced from early summer through fall.

Langeland, K.A., Cherry, H.M., McCormick, C.M., and Craddock Burks, K.A. 2008. Identification and Biology of Nonnative Plants in Florida's Natural Areas – Second Edition. University of Florida-IFAS Publication SP 257.

Missouri Botanical Garden. 2018. <http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=279762&isprofile=0&>

UF/IFAS Center for Aquatic and Invasive Plants. 2018. <https://plants.ifas.ufl.edu/plant-directory/cyperus-involucratus/>

SWAMP FLATSEDGE

(*Cyperus ligularis*)



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Swamp flatsedge is native to Florida. It is a salt-tolerant species that can be found in brackish marshes and swamps. It is a perennial species that primarily reproduces through seed production.



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Grows either solitary or in clumps, with short rhizomes. Plants reach up to 1.3 m in height. Stem bases are thickened and have persistent leaf sheaths. Leaf margins and midveins are rough. Leaves emerge from the lower part of stems in three vertical ranks.



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Inflorescences are pseudo-umbels with 5-12 rays (stalks) of unequal length, subtended by 4-8 leaf-like bracts. Bracts reach up to 50 cm in length. Each ray has 1-7 oval-to-round, reddish-brown spikes with many spikelets. Spikelets are reddish brown. Achenes are brown and oval-shaped and are produced throughout the year.

Atlas of Florida Plants. Institute for Systemic Botany. 2018.

<http://florida.plantatlas.usf.edu/Plant.aspx?id=734>

Flora of North America. 2018.

http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242357682

Institute of Pacific Islands Forestry PIER. 2013.

http://www.hear.org/pier/species/cyperus_ligularis.htm

PAPYRUS

(*Cyperus papyrus*)



Vic Ramey



John Ruter, Bugwood.org



Ann Murray

Papyrus is native to Africa and is a popular ornamental species in Florida. It grows in some open, disturbed wetlands in central and southern parts of the state. It is a perennial species that can reproduce through both seeds and rhizome growth.

A clumping sedge reaching up to 4.5 m in height (certain ornamental varieties will only reach 1-2 m). Rhizomes are woody. Leaves are papyry and reddish brown. The leaves are reduced to sheaths and wrap around new rhizomes and stem bases.

Inflorescences are umbel-like and subtended by bracts. Inflorescences are composed of over 100 thin, shiny, green rays reaching 10-30 cm in length. At the end of each ray is a greenish-brown secondary umbel with brown spikelets (6-10 mm in length). Achenes are brown and occur during the summer. Inflorescences often droop over time.

Floridata. 2015.

<https://floridata.com/plant/511>

Mahr, S. 2011. Papyrus, *Cyperus papyrus*. University of Wisconsin Master Gardener Program.

https://fyi.uwex.edu/mastergardener/files/2015/12/Cyperus_papyrus.pdf

Missouri Botanical Garden. 2018.

<http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=a637>

DWARF PAPYRUS

(*Cyperus prolifer*)



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Dwarf papyrus is native to Africa and is listed as a Category II invasive exotic by the Florida Exotic Pest Plant Council. The UF/IFAS Assessment reports that for all parts of the state it is not a problem species. Dwarf papyrus is a common ornamental species that can be found outside of cultivation as floating mats and a marginal species of lakes. It is a perennial species that can spread through both seeds and rhizome growth.

A clumping rhizomatous sedge reaching 1 m in height and is similar in appearance to papyrus (although stems are thinner). Reddish leaves are reduced to sheaths and can be found only on the base of stems.

Inflorescences are umbel-like, with 50-100 shiny rays reaching 4-20 cm in length. Secondary rays bearing smaller inflorescences can arise from these. Spikelets are light brown and about 12 mm in length. Fruits are 3-sided pale brown achenes that occur during the summer.

Archer, C. 2004. South African National Biodiversity Institute.

<http://pza.sanbi.org/cyperus-prolifer>

Langeland, K.A., Cherry, H.M., McCormick, C.M., and Craddock Burks, K.A. 2008. Identification and Biology of Nonnative Plants in Florida's Natural Areas – Second Edition. University of Florida/IFAS Publication SP 257.

UF/IFAS Center for Aquatic and Invasive Plants. 2018.

<https://plants.ifas.ufl.edu/plant-directory/cyperus-prolifer/>

INUNDATED BEAKRUSH, NARROWFRUIT HORNED BEAKSEDGE (*Rhynchospora inundata*)



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Inundated beakrush is native to Florida. It can be found in diverse wetlands, including marshes, cypress swamps, and lake margins. It is a perennial that can reproduce both through rhizome growth and seeds.

Stems reach up to 1 m in height. Rhizomes are thin and covered in scales. Leaves are upright and mostly arise from a distinctive cluster at the base, with some overtopping the terminal inflorescence.

Inflorescences are clusters of 1-3 terminal corymbs. Spikelets are pale reddish brown, lance-shaped, and form loose open clusters. Achenes (4-6 mm in length) are surrounded by 5-6 bristles that are slightly longer than the fruit (8-9 mm). Fruiting occurs from summer through fall.

Flora of North America. 2018.

http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242357897

New England Wildflower Society: Go Botany. 2018.

<https://gobotany.newenglandwild.org/species/rhynchospora/inundata/>

UF/IFAS Center for Aquatic and Invasive Plants. 2018.

<https://plants.ifas.ufl.edu/plant-directory/rhynchospora-inundata/>

EGGER'S NUTRUSH

(*Scleria eggersiana*)



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Egger's nutrush is native to the tropical Americas and Caribbean. It is considered an Early Detection and Rapid Response (EDRR) species where it is found in Florida. This perennial species is found in southwest Florida (Hendry County), forming dense stands in the understory of cypress swamps.

Plants reach 2.9 m in height and form short, scaly rhizomes. Stems are filled with hardened aerenchyma tissue. Leaf sheaths are broadly winged, extending down the stem past the base of the leaf. Leaf blades can reach 20-70 cm long and 1.3-2.7 cm wide and are armed with prickles. The contra-ligule at the base of the leaf is triangular to lanceolate.

Egger's nutrush reproduces by seeds with flowering occurring in the spring. The inflorescence is composed of a single terminal and a series of 2-5 axillary partial panicles rising from the upper leaves, the terminal being the largest. Achenes are oval-shaped to round, 2.5-3 mm long, smooth, and white to grayish white.

Acevedo-Rodriguez, P. & Strong, M. T. (Eds.). 2005. Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. *Contributions from the United States National Herbarium*, 52, 1-415

Atlas of Florida Plants. Institute for Systemic Botany. 2018. <http://florida.plantatlas.usf.edu/Plant.aspx?id=4900>

The Institute for Regional Conservation. 2016. <http://www.regionalconservation.org/ircs/database/plants/PlantPagePR.asp?TXCODE=Scleegge>

WRIGHT'S NUTRUSH

(*Scleria lacustris*)



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Ryan Brown

Wright's nutrush is native to Africa and South America. It is classified as a Category I invasive species by the Florida Exotic Pest Plant Council. It is also listed as invasive in Central Florida by the UF/IFAS Assessment of Non-Native Plants in Florida's Natural Areas. This large annual sedge species reproduces by seeds and is found in seasonal wetlands and marshes in Central and South Florida.

Seedlings emerge in spring when wetlands are dry; the empty seed can be found attached to roots and can be used to identify this species. Plants are usually single-stemmed but can have multiple unbranched stems. Stems reach up to 2 m in height, with the leaf sheaths developing a purplish-red color at the base of the stem. Leaves are 1-2.5 cm wide, up to 60 cm long, and are armed with prickles. Wright's nutrush has a triangular contra-ligule at the base of the leaf.

The inflorescence is axillary with 2-4 panicles emerging at base of upper leaves, ending with a terminal panicle. Achenes are green and turn to white or mottled gray, smooth, shiny, ovoid in shape, and are subtended by bracts with a prominent keel. Fruiting occurs in the fall.

Flora of North America. 2018. http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242357982

Jacono, C.C., Enloe, S.F., Langeland, K.A., and Hutchinson, J. 2011. Wright's nutrush: an invader of seasonal wetlands in Florida. University of Florida/IFAS EDIS publications SS-AGR-342. <http://edis.ifas.ufl.edu/ag352>

UF/IFAS Assessment of Non-Native Plants. 2018. <https://assessment.ifas.ufl.edu/assessments/scleria-lacustris/>

TROPICAL NUTRUSH

(*Scleria microcarpa*)



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Tropical nutrush is native to the Tropical Americas and Caribbean. It is considered an Early Detection and Rapid Response (EDRR) species where it is found in Florida, and is listed as a Category I invasive species by the Florida Exotic Pest Plant Council. This perennial sedge forms dense stands in the understory of hardwood swamps in Central Florida.

Plants are rhizomatous but appear to grow in clumps. Stems reach 1.2 m in height, are slender (3-6 mm wide), and do not branch. Leaf sheaths are winged, extending down the stem past the base of the leaf. Leaf blades can reach 20 cm long and 0.5-1 cm wide, and are armed with prickles. The contra-ligule at the base of the leaf is lanceolate.

Tropical nutrush has been documented flowering and producing seeds starting in spring (May). The inflorescence is composed of a single terminal and 1-5 linear axillary panicles rising from the upper leaves. Achenes are green and turn to white or mottled gray. They are 1-2 mm long, smooth, and roundish.

Acevedo-Rodriguez, P., & Strong, M. T. (Eds.). (2005). Monocotyledons and Gymnosperms of Puerto Rico and the Virgin Islands. *Contributions from the United States National Herbarium*, 52, 1-415

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.713.528&rep=rep1&type=pdf>

The Institute for Regional Conservation. 2016. <http://www.regionalconservation.org/ircs/database/plants/PlantPagePR.asp?TXCODE=Sclemicr>

UF/IFAS Center for Aquatic and Invasive Plants. 2018. <https://plants.ifas.ufl.edu/plant-directory/scleria-microcarpa/>

