

Picayune Invasive Plant Field Guide

By Maureen S. Bonness

November 2022

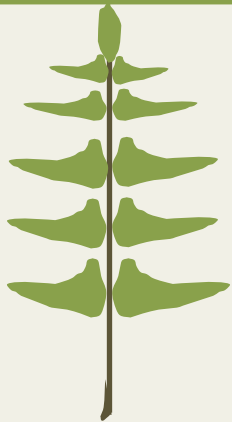
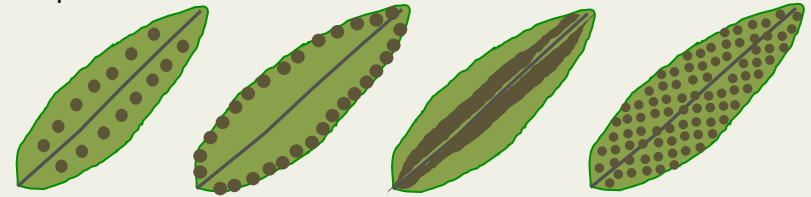
Part F – Ferns & Vines

Page	Scientific Name	Common Name
F.2	<i>Lygodium microphyllum</i>	Old world climbing fern
F.3	<i>Marsilea</i> spp.	Water-clover fern
F.4	<i>Momordica charantia</i>	Bitter-pear-melon
F.5	<i>Nephrolepis brownii</i>	Asian sword fern
	<i>N. cordata</i>	Tuberous sword fern
	<i>N. exaltata</i> 😊	Wild Boston fern
F.7	<i>Abrus precatorius</i>	Rosary pea
F.8	<i>Dioscorea bulbifera</i>	Air potato
F.9	<i>Mikania micrantha</i>	Mile-a-minute vine

Field Guide Chapters

- Part A Other Grasses
- Part B Bunch & Giant Grasses
- Part C Creeping Grasses
- Part F Ferns & Vines
- Part H Herbs
- Part S Shrubs
- Part T Trees

Ferns have spores (not seeds) that develop inside spore clusters, usually on the underside of mature leaflets or fronds. The pattern of spore clusters is important for fern ID.



Pinnate frond
(1x divided)

Examples: swamp fern,
Asian sword fern



Pinnatifid frond
(1x divided, but
“leaflets” not distinct)
Example: resurrection fern

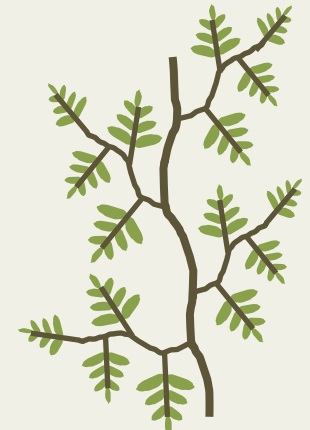


Bipinnate
(2x divided)

Example: royal fern



Tripinnate
(3x divided)



Tripinnate
(3x divided)

Lygodium microphyllum

Old world climbing fern

FLEPPC: Category I.

Plant family: Schizaeaceae.

Snapshot: Clambering vine that can smother.

Vegetative recognition: Vine with thread-like wiry stems that twine around all other vegetation nearby, almost to the tree tops. Short leafy branches (2-5 inches long) are divided into leaflets that have smooth edges and a smooth surface. The leaflets are variable shaped – oval, heart-shaped, long-triangular, lobed.

Reproductive recognition: Leaflets have finger-like lobes on margins that grow spore clusters.

Reproductive period: All year.

Habitat: Just about anywhere, unfortunately.

Lygodium japonicum “Japanese Climbing Fern”

Similar looking to Old world climbing fern (and equally invasive), but not common in southwest Florida. Fronds are jagged 2x divided (bipinnate) or 3x (tripinnate) and end with a very long tip.

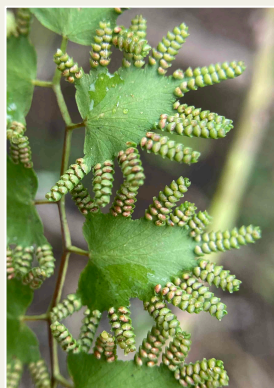


Photo by Jean McColom

Japanese climbing fern

Marsilea spp. Water-clover fern

FISC (FLEPPC): All species known to occur in southern FL are non-native.

Plant family: Marsileaceae.

Snapshot: Low-growing fern on horizontal stems.

Vegetative recognition: Fronds look like a 4-leaf clover. Stems are horizontal and can be submerged.

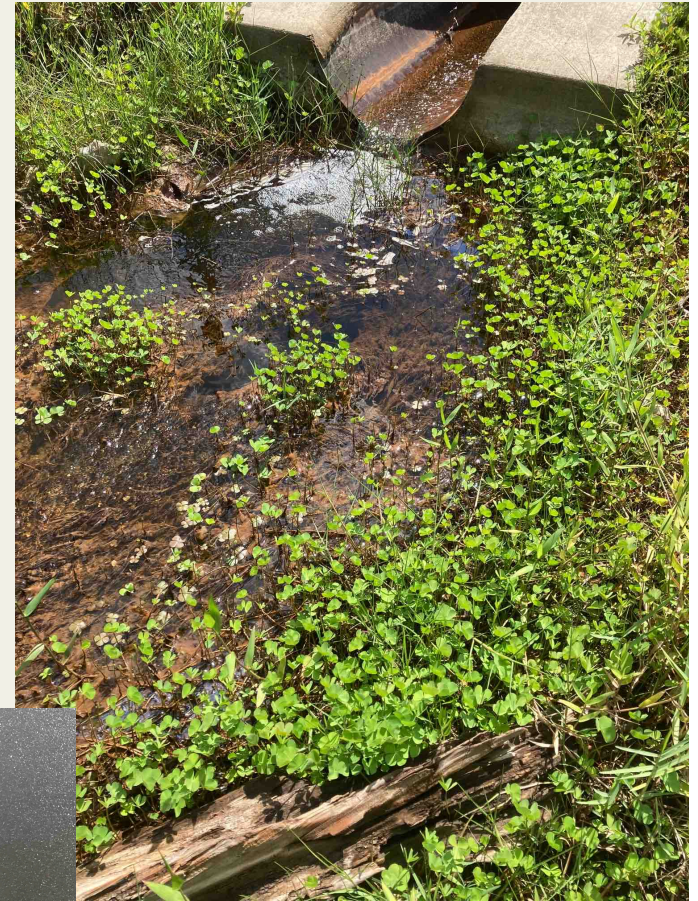
Reproductive recognition: Small capsules (sporocarps) near the stem.

Habitat: Wetlands, ditches, edges of canals.

Look-a-likes: *Oxalis* spp., “woodsorrel”, native, see below.



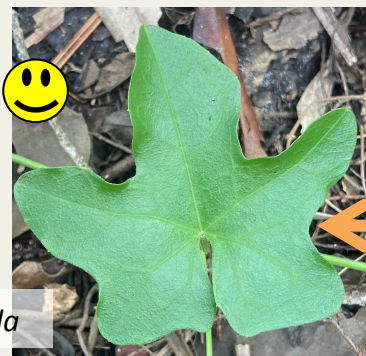
M. minuta is recognized by having a few roots that grow from the stem between nodes (not at the leaf-stem junction).



Woodsorrel leaves have 3 (not 4) lobes, and stems grow upright.

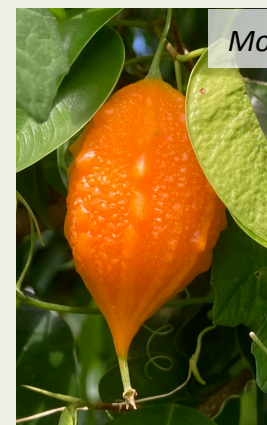
Momordica charantia

Bitter-pear-melon, balsam-pear

FISC (FLEPPC): Category II.**Plant family:** Cucurbitaceae (squash family).**Snapshot:** Branching vine with tendrils.**Vegetative recognition:** Vine with narrow stem that can have many spidery branches and curly-cue tendrils. Leaves are wide with many deep indents.**Flowering recognition:** Yellow vase-shaped flower. Fruit is an orange pod and when it ripens, it splits open and displays bright red seeds.**Flowering period:** Summer – fall.**Habitat:** Disturbed upland sites.**Look-a-likes:** *Melothria pendula*, “creeping cucumber”, native*Melothria pendula*

Creeping cucumber leaves have shallow indents, and much smaller flowers.

Momordica leaves have deep indents that result in leaf having ~5 lobes.

*Momordica charantia**Momordica* fruit

Nephrolepis brownii & *Nephrolepis cordifolia*

Asian sword fern

Tuberous sword fern

(formerly *Nephrolepis multiflora*)

FISC (FLEPPC): Both are Category I.

Plant family: Nephrolepidaceae.

Snapshot: Low-growing fern, usually in a dense cluster.

Vegetative recognition: Fronds are 1x divided (pinnate), to 3 ft long and 2-8 inches wide. Leaflets are packed close to each other and may overlap; leaflet margins are usually finely toothed.

Reproduction recognition: Spore clusters are on underside of each leaflet & look like 2 rows of brown dots. They reproduce throughout the year.

Habitat: Disturbed sites, hammocks, swamps. Can also grow on cabbage palm trunks.

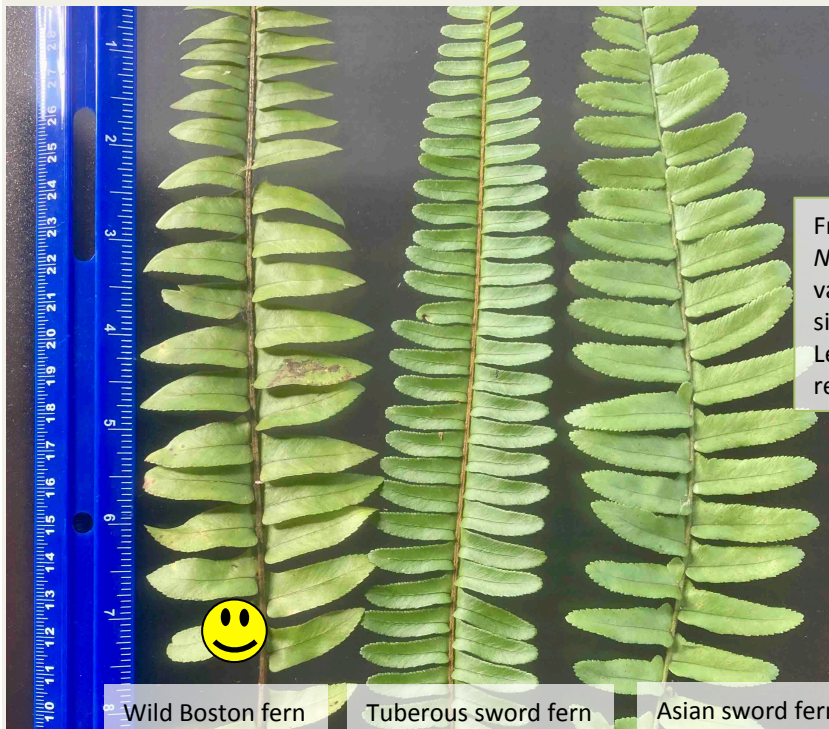
Look-a-likes: *Nephrolepis exaltata*, "wild boston fern", native 😊

Note: various *Nephrolepis* spp. can live side-by-side



Fronds of these 3 *Nephrolepis* species are variable and look very similar to each other. Leaflet shape is not a reliable ID character.

[More photos on next page.](#)



Wild Boston fern

Tuberous sword fern

Asian sword fern

A good ID method for Asian sword fern is looking at hairs ("scales") on lower stems. Hairs of Asian sword fern are two-tone with dark brown center and pale outer edges. On mature stems, the outer edges of hairs are light brown.



Wild Boston fern

Tuberous

Asian

Nephrolepis spp. comparisons, continued

Tuberous sword fern SOMETIMES has tubers on the roots. The other species never have tubers.



Tuberous sword fern

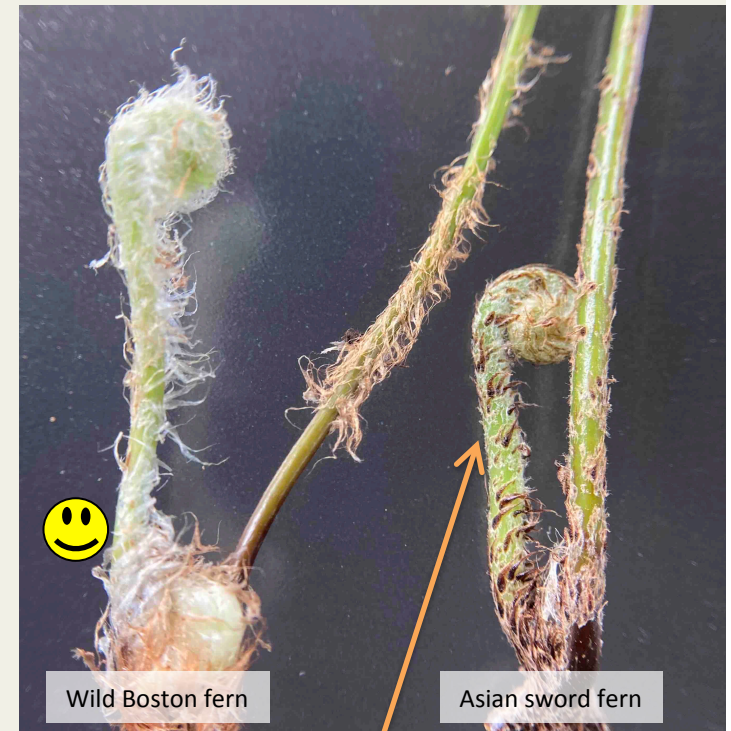
Tuberous sword fern SOMETIMES has hairs ("scales") with brown dots on stem near tip (need magnifying glass.) The other species never have these brown-dot-hairs.



Tuberous sword fern



Note: ***Nephrolepis biserrata***, "giant sword fern", native (Threatened), also occurs in Picayune. It is generally taller (to 6 ft), leaflets are >2 inches long, and there are usually gaps between adjacent leaflets.



Wild Boston fern

Asian sword fern

Young stems ("fiddleheads") are sometimes the best plant part to see stem-hairs (scales). The two-tone brown hairs on Asian sword fern can be seen without magnification on fiddleheads.

Abrus precatorius

Rosary pea

FISC (FLEPPC): Category I.

Plant family: Fabaceae (bean family).

Snapshot: Clambering vine that drops its leaves in winter.

Vegetative recognition: Twining vine (without tendrils) that wraps around nearby shrubs and trees. Leaves are 2-5 inches long, 1x divided (pinnate), typically with ~26 tiny leaflets.

Flowering recognition: Cluster of small pinkish bean flowers. Pods turn brown as they mature, then split and curl to expose bright shiny red seeds with a black spot.

Flowering period: Summer.

Habitat: Disturbed sites.



Inside the hard seed coat, the seed contains a potent toxin called abrin. This is a problem for animals (e.g., cows) that chew the seeds before swallowing. Birds swallow the seeds whole and disperse them. The seeds have been used for jewelry across the globe.

Dioscorea bulbifera

Air potato

FISC (FLEPPC): Category I.

Plant family: Dioscoreaceae.

Snapshot: Vine with wide leaves that dies back in winter.

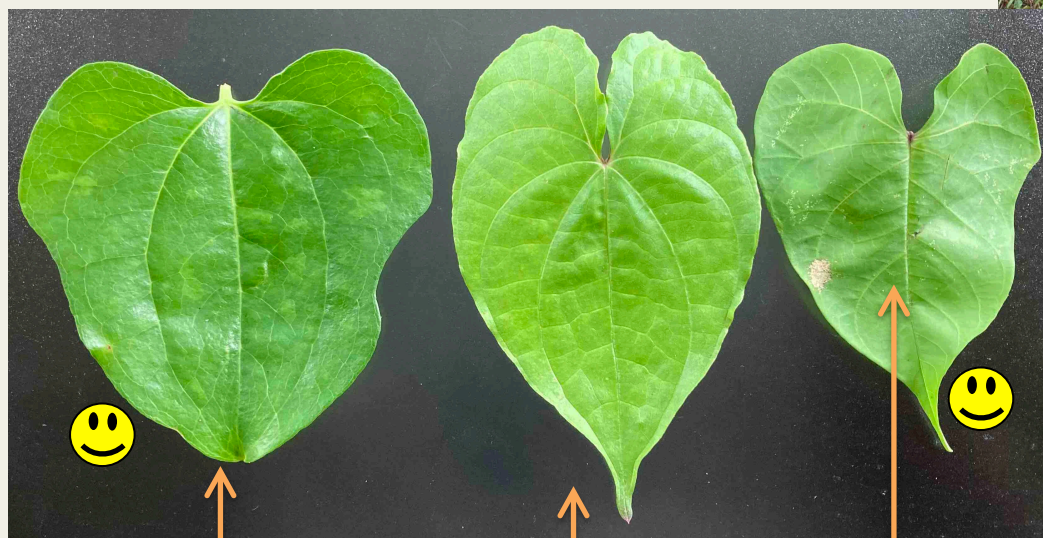
Vegetative recognition: Stem is twining, without tendrils. Leaves are heart-shaped with a pointy tip. Leaf veins radiate from leaf-stem and curve towards the tip (not towards the leaf edge).

Bulbils (potato-like structures) grow on vines at vine/leaf junction. Bulbils vary from the size of a key lime to the size of a grapefruit. After bulbils fall to the ground, they sprout into new plants.

Flowering recognition: rarely seen

Habitat: Disturbed sites

Look-a-likes: *Ipomoea* spp. "morning glory", native
Smilax spp. "greenbrier", native



Greenbrier has veins similar to air potato, but greenbrier stems are thick, wiry, and have tendrils

Air potato veins arch from leaf base towards the tip

Some morning glory veins start at the mid-vein and extend to the leaf edge (not tip)



Bulbil ("potato")

Mikania micrantha Mile-a-minute vine

FISC (FLEPPC): Category II.

Plant family: Asteraceae (sunflower family).

Snapshot: A scrambling or climbing vine.

Vegetative recognition: Vine that can smother other vegetation including shrubs and small trees. Leaves are heart-shaped, 2-5 inches long, and arranged opposite.

Flowering recognition: Clusters of small white flowers are on long stalks.

Flowering period: Late summer/early fall.

Habitat: Disturbed uplands.

Not yet seen in Picayune. Thus far (2022), only known to occur near Homestead.

Invasive comment: Very rapid invader.

Look-a-likes: *Mikania scandens*,
“climbing hempvine”, native



Mikania scandens, “climbing hemp vine”

M. micrantha (invasive) vs. M. scandens (native)

- **M. micrantha grows in uplands**, whereas *M. scandens* is found in wetlands or moist areas.
- Both grow aggressively.
- Leaf shape and flowers of both species look VERY similar.
- *M. micrantha* leaves are usually pale green or yellow-green, while *M. scandens* is usually medium green.
- *M. micrantha* flower phyllaries are smooth or nearly smooth, and *M. scandens* phyllaries are hairy.



Phyllaries (bracts at base of sunflower-family flowers) are hairy on *M. scandens*



Photo source: Keith Bradley. Atlas of Florida Plants. <https://florida.plantatlas.usf.edu> 2022. R.P. Wunderlin, A.R. Franck, F.B. Essig. Inst. For Systemic Botany, Univ. South Florida.

Technical information about species ID: Anderson, PJ, et al., 2012. Which Mikania: Native vine or noxious weed? Botany Circular No. 37. Florida Dept. of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, Florida. 6 p. Accessed via www.freshfromflorida.com/content/download/9956/136004/BotCir37.pdf

Photographic credits

Jean McCollom: *Lygodium japonicum*

Keith Bradley: *Mikania micrantha*

Maureen S. Bonness: all other photos

Resources

Guide to the Vascular Plants of Florida 3rd edition. 2011. R.P. Wunderlin, B.F. Hansen. Univ. Press of Florida.

Atlas of Florida Plants. <https://florida.plantatlas.usf.edu> 2022. R.P. Wunderlin, A.R. Franck, F.B. Essig. Inst. For Systemic Botany, Univ. South Florida.

Identification & Biology of Non-Native Plants in Florida's Natural Areas. 1998. K.A. Langeland, K. Craddock Burks (eds.). Univ. of Florida, Gainesville, FL.

The Ferns of Florida. 2000. G. Nellson. Pineapple Press, Sarasota, FL.

<http://Eddmaps.org> Univ. of Georgia. Center for Invasive Species and Ecosystem Health.

<https://www.inaturalist.org> California Academy of Sciences and National Geographic.

<https://newfleppc.bugwoodcloud.org/index.cfm> Florida Invasive Species Council (formerly FL Exotic Pest Plant Council).

<https://www.invasive.org> Center for Invasive Species and Ecosystem Health.

<https://www.fdacs.gov/Agriculture-Industry/Pests-and-Diseases/Plant-Pests-and-Diseases/Noxious-Weeds> Florida Dept. of Agriculture. Noxious weeds.

Index

- Abrus precatorius* F.7
Acacia auriculiformis T.2
Air potato F.8
Albizia lebbbeck T.3
Andropogon spp. B.8
Asian sword fern F.5
Australian beardgrass A.3
Australian pine T.7
Bacopa caroliniana H.6
Bahia grass C.11
Balsam-pear F.4
Bermuda grass C.2
Bitter-pear-melon F.4
Bothriochloa bladhii A.3
Bothriochloa ischaemum A.3
Bothriochloa pertusa A.2
Brazilian pepper S.6
Broomgrass B.8
Burhead sedge A.4
Burma reed B.6
Cabbage palm T.10
Candlestick plant S.8
Casuarina spp. T.7
Cattail A.14
Ceasarweed H.9
Cenchrus polystachios B.2
Cenchrus purpureus B.3
Centipede grass C.3
Christmas senna S.7
Climbing hempvine F.9
Cogon A.11
Creeping cucumber F.4
Creeping oxeye H.8
Creeping signalgrass C.13
Crotalaria pallida H.2
Crotalaria spectabilis H.2
Crowfootgrass A.5
Cuban bulrush A.4
Cynodon dactylon C.2
Cyperus blepharoleptos A.4
Dactyloctenium aegypticum A.5
Dioscorea bulbifera F.8
Downy rose-myrtle S.5
Dwarf rotala H.5
Earleaf acacia T.2
Elephant grass B.3
Eragrostis atrovirens A.6
Eragrostis gangetica A.7
Eragrostis scaligera A.8
Eremochloa ophiuroides C.3
Fakahatchee grass B.14
Fall panic grass B.15
Fishbone grass C.8
Flase tamarind T.5
Florida paspalum B.8
Florida snow H.4
Giant reed B.10
Guava T.9
Guinea grass B.15
Hemarthria altissima C.4
Heteropogon contortus A.10
Hymenachne amplexicaulis C.5
Hyparrhenia rufa B.4
Imperata cylindrica A.11
Jaragua B.4
Java plum T.12
Johnson grass B.12
King Ranch beardgrass A.3
Lantana S.2
Lantana strigocamara S.2
Leadtrees T.4
Lemon bacopa H.6
Leucaena leucocephala T.4
Limpograss C.4
Ludwigia octovalis S.4
Ludwigia peruviana S.3
Lygodium spp. F.2
Lysiloma latisiliquum T.5
Macropitium lathyroides H.3
Maidencane C.6
Marsilea spp. F.3
Melaleuca T.8
Melaleuca quinquenervia T.8
Melinis repens A.12
Melothria pendula F.4
Mexican clover H.4
Mexican primrosewillow S.4
Mikania micrantha F.9
Mikania scandens F.9
Mile-a-minute vine F.9
Mission grass B.2
Momordica charantia F.4
Natalgrass A.12
Nephrolepis brownii F.5
Nephrolepis cordifolia F.5
Nephrolepis exaltata F.5
Neyraudia reynauldiana B.6
Old world climbing fern F.2
Panicum dichotomiflorum B.15
Panicum hemitomon C.6
Panicum repens C.7
Paper-bark tree T.8
Para grass C.14
Paspalum distichum C.8
Paspalum floridanum B.8
Paspalum notatum C.11
Paspalum urvillei B.7
Pennisetum polystachion B.2
Pennisetum purpureum B.3
Peruvian primrosewillow S.3
Phasey bean H.3
Phragmites berlandieri B.10
Pitted beardgrass A.2
Popcorn sedge A.13
Privet senna S.9
Psidium guajava T.9
Rhodomyrtus tomentosa S.5
Richardia grandiflora H.4
Rosary pea F.7
Rotala rotundifolia H.5
Roundleaf toothcup H.5
Sabal palmetto T.10
Saccharum giganteum B.11
Schinus terebinthifolius S.6
Scirpus cubensis A.4
Scleria lacustris A.13
Senna alata S.8
Senna ligustrina S.9
Senna obtusifolia S.9
Senna occidentalis S.8
Senna pendula S.7
Septicweed S.8
Showy rattlebox H.2
Shrubby false buttonweed H.7
Sicklepod S.9
Sig Walker grass C.13
Slender lovegrass A.7
Smooth rattlebox H.2
Smutgrass B.13
Solanum diphyllum S.10
Sorghum halapense B.12
Southern wild rice B.16
Spermacoce verticillata H.7
Sphagneticola trilobata H.8
Sporobolus indicus var. *pyramidalis* B.13
St. Augustine grass C.12
Stenotaphrum secundatum C.12
Sugarcane plumegrass B.11
Syzygium cumini T.12
Tall beardgrass A.3
Tall-blue A.6
Tanglehead A.10
Tender lovegrass A.8
Thalia lovegrass A.6
Torpedo grass C.7
Tripsacum dactyloides B.14
Tuberous sword fern F.5
Two-leaf nightshade S.10
Typha domingensis A.14
Urena lobata H.9
Urochloa arrecta C.13
Urochloa maxima B.15
Urochloa mutica C.14
Valamuerto S.7
Vaseygrass B.7
Water-clover fern F.3
Wedelia H.8
West Indian marshgrass C.5
Wild boston fern F.5
Wild tamarind T.5
Woman's tongue T.3
Wright's nutrush A.13
Zizaniopsis miliacea B.16