

KEY FEATURES IN DETERMINING THE WEEDS FROM THE NATIVES

Dexter Sowell & Kim Alexander
Florida Natural Areas Inventory



FLORIDA
Natural Areas
INVENTORY



INTRODUCTION

- *Land managers and contractors*
- *Active exotics removal in Florida and at same time high number of native/rare species that are very similar to exotics*
- *Avoiding non-target damage to our natives is KEY*
- *This presentation is a series of species comparisons to help us avoid non-target damage*

Information Sources:

- *Florida Natural Areas Inventory*
- *ISB Atlas of Florida Plants*
- *UF/IFAS Center for Invasive Plants*

EXOTIC

NATIVE

Don't let "mistaken identity" happen in your invasives control projects !!!

TREES AND SHRUBS

CHINESE TALLOW

Triadica sebifera



CORALBEAN

Erythrina herbacea



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UF/IFAS

Erythrina herbacea

CHINESE TALLOW

Triadica sebifera



CORALBEAN

Erythrina herbacea



- Tree, unarmed
- Simple leaf
- Small yellow flowers
- Milky sap
- Capsule with white seeds

- Small shrub, armed
- Compound leaf
- Red tubular flower
- No milky sap
- Legume (bean pod) with red seeds



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SHOEBUTTON ARDISIA

Ardisia elliptica



Ardisia elliptica
Photo and © by Roger Hammer
Wildflowers of the Everglades



MARLBERRY

Ardisia escallonioides

Ardisia escallonioides

Photo and © by Roger Hammer
Wildflowers of the Everglades



Ardisia escallonioides
Photo by Shirley Denton

SHOEBUTTON ARDISIA

Ardisia elliptica



- Leaf margins revolute
- Flowers in stalked axillary clusters
- Shrub <2 meters tall

MARLBERRY

Ardisia escallonioides



- Leaf margins flat
- Flowers in terminal clusters
- Shrub/small tree to 5 meters tall or more

CORAL ARDISIA

Ardisia crenata

MARLBERRY

Ardisia escallonioides



CORAL ARDISIA

Ardisia crenata



MARLBERRY

Ardisia escallonioides



- Leaves with crenate margins
- Flowers in stalked axillary clusters
- Bright red drupes
- Leaves entire
- Flowers in terminal clusters
- Drupes turning black

CORAL ARDISIA

Ardisia crenata



WILD COFFEE

Psychotria nervosa



Psychotria nervosa

Photo by T. Ann Williams

Psychotria nervosa

Photo by Keith Bradley



CORAL ARDISIA

Ardisia crenata



WILD COFFEE

Psychotria nervosa



- Alternate leaves
- Revolute, crenate leaf margin
- Leaf veins not prominent

- Opposite leaves
- Slightly revolute, entire to wavy leaf margin
- Leaf veins prominent



CHINESE PRIVET

Ligustrum sinense



GODFREY'S SWAMPPRIVET

Forestiera godfreyi



CHINESE PRIVET

Ligustrum sinense



- Terminal flower clusters
- Evergreen leaves
- Leaf margins entire
- Short petiole
- Underside of leaves with hairs along the midvein

GODFREY'S SWAMPPRIVET

Forestiera godfreyi



- Axillary flower clusters
- Deciduous leaves
- Leaf margins toothed above the middle
- Longer petiole
- Underside of leaves uniformly hairy

CHINESE PRIVET

Ligustrum sinense



Ligustrum sinense

Photo by Fred Nation

FLORIDA SWAMPPRIVET

Forestiera segregata



Forestiera segregata

Photo by Walter K. Taylor,
from his book: *Florida Wildflowers
In Their Natural Communities*

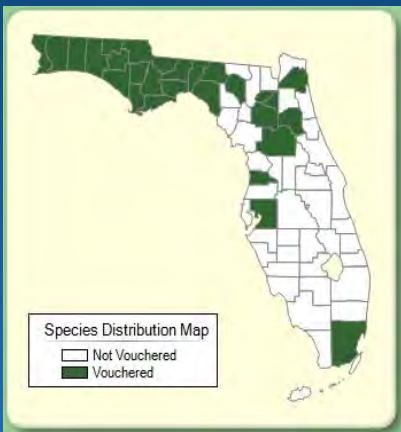


Forestiera segregata

Photo by Shirley Denton

CHINESE PRIVET

Ligustrum sinense



- Terminal flower clusters
- Short petiole
- Leaves elliptic
- Underside of leaves with hairs along the midvein

FLORIDA SWAMPPRIVET

Forestiera segregata



- Axillary flower clusters
- Leaves sessile
- Leaves obovate
- Underside of leaves glabrous



CHINESE PRIVET

Ligustrum sinense

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CHINESE PRIVET

Ligustrum sinense



Ligustrum sinense

Photo by Fred Nation

WALTER'S VIBURNUM

Viburnum obovatum

Viburnum obovatum

photo by Gil Nelson, from his book
Shrubs and Woody Vines of Florida



Viburnum obovatum

Photo by Dennis Girard



CHINESE PRIVET

Ligustrum sinense



- Four petals/flower
- Leaf margin entire
- No short shoots
- Young stems hairy

WALTER'S VIBURNUM

Viburnum obovatum



- Five petals/flower
- Leaf margin entire or serrate
- Short shoots
- Young stems and leaves with rusty scales

BEACH NAUPAKA

Scaevola taccada



INKBERRY

Scaevola plumieri



BEACH NAUPAKA

Scaevola taccada



- Leaves longer (to 21 cm)
- Leaves rolled
- Leaves less succulent
- White fruit
- Green foliage

INKBERRY

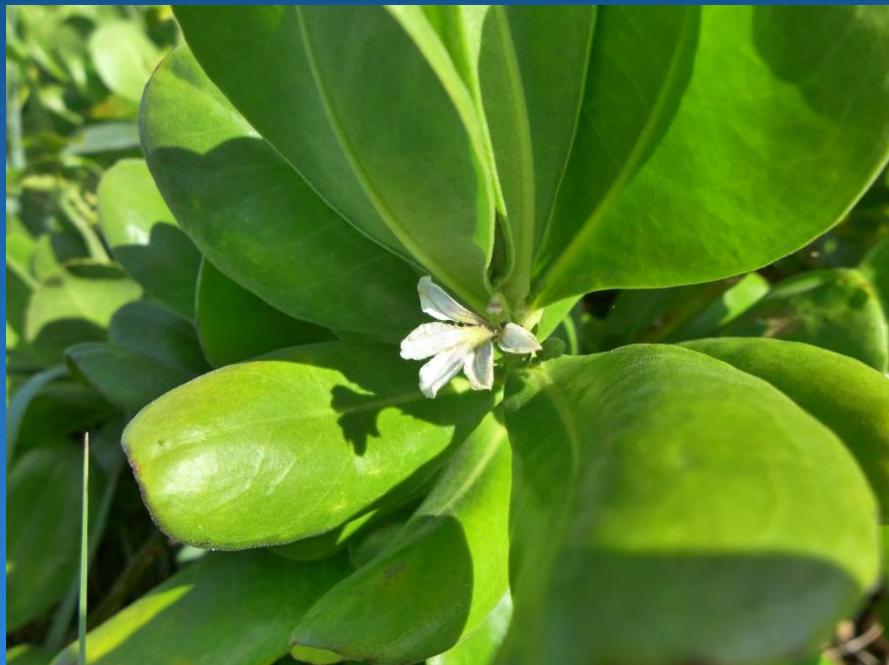
Scaevola plumieri



- Leaves shorter (to 10 cm)
- Leaves flat
- Leaves more succulent
- Black fruit
- Yellow-green foliage

BEACH NAUPAKA

Scaevola taccada



INKBERRY

Scaevola plumieri



Scaevola plumieri
Photo by T. Ann Williams



Invasive, beach Naupaka (*Scaevola taccada*) growing with native Inkberry (*Scaevola plumieri*).

BEACH NAUPAKA

Scaevola taccada



BEACH NAUPAKA

Scaevola taccada



SEVENYEAR APPLE

Genipa clusiifolia



BEACH NAUPAKA

Scaevola taccada



SEVENYEAR APPLE

Genipa glusiiifolia

BEACH NAUPAKA

Scaevola taccada



- Leaves alternate (but densely clustered)
- White fruit
- Fruit smaller
- Flowers zygomorphic

SEVENYEAR APPLE

Genipa clusiifolia



- Leaves opposite
- Black fruit (green when immature)
- Fruit larger (6-10cm)
- Flowers actinomorphic

LANTANA

Lantana strigocamara



PINELAND LANTANA

Lantana depressa



LANTANA

Lantana camara



- Obtuse leaf base
- Leaves more or less flat
- Orange or multi-colored flowers

PINELAND LANTANA

Lantana depressa



- Acute leaf base
- Leaves folded along midrib
- All flowers yellow

LANTANA

Lantana camara



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HEAVENLY BAMBOO

Nandina domestica

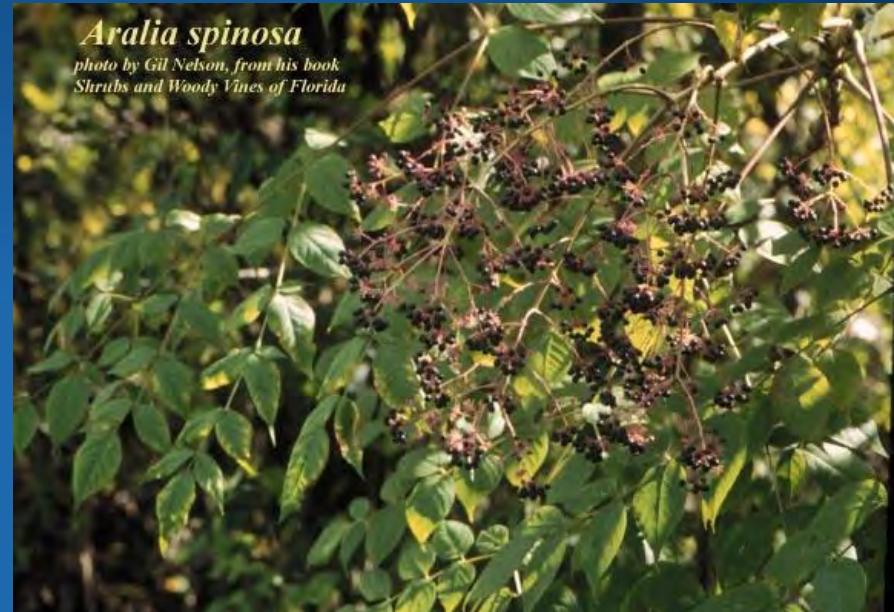


Nandina domestica

photo by Gil Nelson, from his book
Shrubs and Woody Vines of Florida

DEVIL'S WALKINGSTICK

Aralia spinosa



Aralia spinosa

photo by Gil Nelson, from his book
Shrubs and Woody Vines of Florida

HEAVENLY BAMBOO

Nandina domestica



DEVIL'S WALKINGSTICK

Aralia spinosa

Aralia spinosa
Photo by Virginia Ducey
USF Herbarium Slide Collection



HEAVENLY BAMBOO

Nandina domestica



DEVIL'S WALKINGSTICK

Aralia spinosa



- Leaflet margin entire
- Stem and leaves unarmed
- Red berry

- Leaflet margin serrate
- Stem and leaves armed with prickles
- Purple/black drupe

Aralia spinosa
Photo by Shirley Denton



DEVIL'S WALKINGSTICK
Aralia spinosa

HEAVENLY BAMBOO

Nandina domestica

Nandina domestica

Photo by Betty Wargo

SILVERTHORN

Elaeagnus pungens



Elaeagnus pungens

Photo by Allen Boatman

GUM BULLY

Sideroxylon lanuginosum

Sideroxylon lanuginosum

Photo by Shirley Denton



SILVERTHORN

Elaeagnus pungens



- Twigs and underside of leaf with silvery and rusty scales
- Fruit a large berry covered with scales
- No milky sap

GUM BULLY

Sideroxylon lanuginosum



- Twigs and underside of leaf with soft hairs
- Fruit a black berry
- Milky sap

JAVA PLUM

Syzygium cumini



FALSE MASTIC

Sideroxylon foetidissimum



JAVA PLUM

Syzygium cumini



FALSE MASTIC

Sideroxylon foetidissimum



- Black fruit
- Entire leaf margin
- Opposite leaves
- Lateral leaf veins
quite faint

- Yellow fruit
- Wavy leaf margin
- Alternate leaves
- Lateral leaf veins
more apparent

JAVA PLUM

Syzygium cumini



Syzygium cumini
Photo by Asit K. Ghosh

FALSE MASTIC

Sideroxylon foetidissimum



CARROTWOOD

Cupaniopsis anacardioides



Ed Weislo
floridasnature.com

PARADISETREE

Simarouba glauca



Simarouba glauca
Photo by Bob Upcavage



CARROTWOOD

Cupaniopsis anacardioides



PARADISETREE

Simarouba glauca



CARROTWOOD

Cupaniopsis anacardioides



- Leaves with 4-12 leaflets
- Leaves green when young
- Leaves yellowish-green
- Inner bark orange
- Orange, 3-lobed fruit

PARADISETREE

Simarouba glauca



- Leaves with 9-21 leaflets
- Leaves red-orange when young
- Leaves dark green
- Inner bark not orange
- Purplish/black fruit

CARROTWOOD

Cupaniopsis anacardioides

PARADISETREE

Simarouba glauca



STRAWBERRY GUAVA

Psidium cattleianum



POSSUMHAW

Viburnum nudum

Viburnum nudum
Photo by Betty Wargo



Viburnum nudum
Photo by Rob Curtis/The Early Bird



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STRAWBERRY GUAVA

Psidium cattleianum



- Crushed leaves fragrant
- Flowers/fruits axillary
- Berries yellow or red
- Berries with persistent, fleshy sepals at apex

POSSUMHAW

Viburnum nudum



- Leaves not fragrant
- Flowers/fruits terminal
- Drupes purplish black
- Drupes without sepals at apex

STRAWBERRY GUAVA

Psidium cattleianum



WHITE STOPPER

Eugenia axillaris



STRAWBERRY GUAVA

Psidium cattleianum



- Yellowish to red berry
- Pedicels 1-2 cm long, stout
- Leaves mostly obovate
- Short acuminate leaf apex

WHITE STOPPER

Eugenia axillaris



- Black berry
- Pedicels <0.5 cm long
- Leaves ovate to elliptic
- Acute leaf apex

SURINAM CHERRY

Eugenia uniflora

WHITE STOPPER

Eugenia axillaris

Eugenia uniflora

Photo by Dennis Girard



Eugenia axillaris

Photo and © by Roger Hammer
Wildflowers of the Everglades



SURINAM CHERRY

Eugenia uniflora



WHITE STOPPER

Eugenia axillaris



Eugenia axillaris

Photo by Keith Bradley

SURINAM CHERRY

Eugenia uniflora



- Large, red ‘ribbed’ berry
- Pedicels >0.5 cm long
- Petiole very short (2-5 mm)

WHITE STOPPER

Eugenia axillaris



- Small, black berry
- Pedicels <0.5 cm long
- Petiole longer and reddish

GUAVA

Psidium guajava



Psidium guajava
Photo by Asit K. Ghosh

POND APPLE

Annona glabra



Annona glabra
Photo by Gil Nelson



Annona glabra
Photo and © by Roger Hammer
Wildflowers of the Everglades



GUAVA

Psidium guajava



Psidium guajava

Photo by Walter Hodge
USF Herbarium Slide Collection

POND APPLE

Annona glabra

Annona glabra

Photo by Bob Upcavage



GUAVA

Psidium guajava



POND APPLE

Annona glabra



- Opposite leaves
- Leaf veins prominent
- Fruit with persistent, fleshy sepals at the apex

- Alternate leaves
- Leaf veins obscure
- Fruit without persistent sepals

CAMPHOR TREE

Cinnamomum camphora



SWAMP BAY

Persea palustris



CAMPHOR TREE

Cinnamomum camphora



- Crushed leaves have a strong camphor smell
- Glaucous leaf underside
- Three veins at leaf base
- Fruit with a cupule

SWAMP BAY

Persea palustris



- Crushed leaves have a bay leaf smell
- Pubescent leaf underside
- One vein at leaf base
- Fruit lacking a cupule

LAUREL FIG

Ficus microcarpa



Ficus microcarpa
Photo by Keith Bradley

STRANGLER FIG

Ficus aurea



Ficus aurea
Photo by Rob Curtis/The Early Birder



Ficus microcarpa
Photo by Keith Bradley



Ficus aurea
Photo by Walter Hodge
USF Herbarium Slide Collection

LAUREL FIG

Ficus microcarpa



- Smaller leaves (4-6 cm long)
- Veins obscure
- Lowest pair of veins at a sharper angle than rest
- Figs ca. 1 cm long

STRANGLER FIG

Ficus aurea



- Larger leaves (6-12 cm long)
- Veins yellowish
- Lowest pair of veins not different
- Figs ca. 2 cm long

LAUREL FIG

Ficus microcarpa



STRANGLER FIG

Ficus aurea



© John Bradford

LEAD TREE

Leucaena leucocephala



WILD TAMARIND

Lysiloma latisiliquum



LEAD TREE

Leucaena leucocephala



- Leaflet very asymmetrical
- Legume narrower
- 10 stamens/flower
- Stipules inconspicuous

WILD TAMARIND

Lysiloma latisiliquum



- Leaflet slightly asymmetrical
- Legume wider
- >10 stamens/flower
- Stipules conspicuous, large on new growth

LEAD TREE

Leucaena leucocephala



WILD TAMARIND

Lysiloma latisiliquum



Bobby Hattaway / www.discoverlife.org

LEAD TREE

Leucaena leucocephala



WILD TAMARIND

Lysiloma latisiliquum



- Gland at top of petiole (under first leaflets) on lead tree
- Stipules at base of new leaves on wild tamarind

BRAZILIAN PEPPER

*Schinus terebinthifolia**



DAHOON

Ilex cassine



Ilex cassine
Photo by Mary Keim

- Recent name change to match latin gender of *Schinus*
 - ... *folius* to ... *folia*

BRAZILIAN PEPPER

Schinus terebinthifolia



- Compound leaf
- Crushed leaves have a pungent odor
- Drupes with a single seed
- Drupe without a black dot on top

DAHOON

Ilex cassine



- Simple leaf
- Crushed leaves are odorless
- Drupes with four seeds
- Fruit with a black dot on top (persistent stigma)

WHITE MULBERRY

Morus alba



RED MULBERRY

Morus rubra



Morus alba

Photo by Shirley Denton

Morus rubra

Photo by Asit K. Ghosh



WHITE MULBERRY

Morus alba



- Upper leaf surface glabrous
- Lower leaf surface with hairs on veins or glabrous
- Leaf apices abruptly acuminate
- Leaves usually dark green

RED MULBERRY

Morus rubra



- Upper leaf surface scabrous (with short hairs)
- Lower leaf surface covered with soft hairs throughout
- Leaf apices conspicuously acuminate
- Leaves usually mid-green

WHITE MULBERRY

Morus alba



RED MULBERRY

Morus rubra



PAPER MULBERRY

Broussonetia papyrifera



Broussonetia papyrifera

Photo by Shirley Denton

RED MULBERRY

Morus rubra



Morus rubra

Photo by Betty Wargo



Morus rubra

Photo by Asit K. Ghosh

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PAPER MULBERRY

Broussonetia papyrifera



- Clonal, thicket forming
- Small twigs pubescent
- Petioles often longer, up to the length of the leaf
- Leaves usually dull green

RED MULBERRY

Morus rubra



- Solitary
- Small twigs glabrous, or with only a few hairs
- Petioles 2 to 2.5 cm long
- Leaves usually mid-green

SISAL HEMP

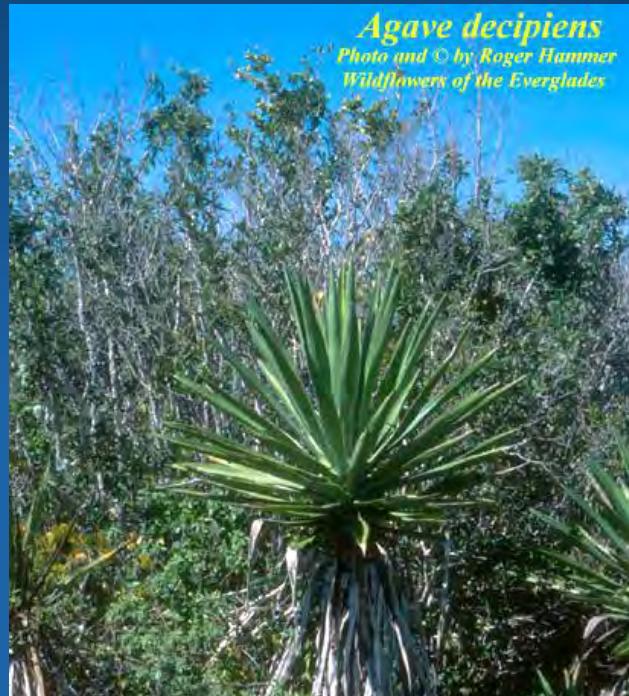
Agave sisalana



Agave sisalana
Photo by Betty Wargo

FALSE SISAL

Agave decipiens



Agave decipiens
Photo and © by Roger Hammer
Wildflowers of the Everglades



SISAL HEMP

Agave sisalana



- Leaves entire
- Leaves larger
 - 90-130 cm long
 - 9-12 cm wide
- Upper leaf surface flat

FALSE SISAL

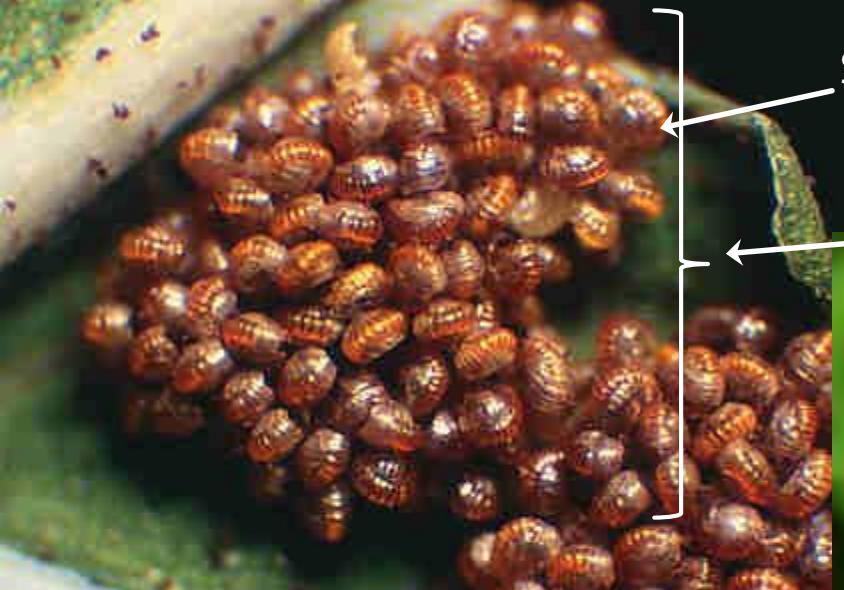
Agave decipiens



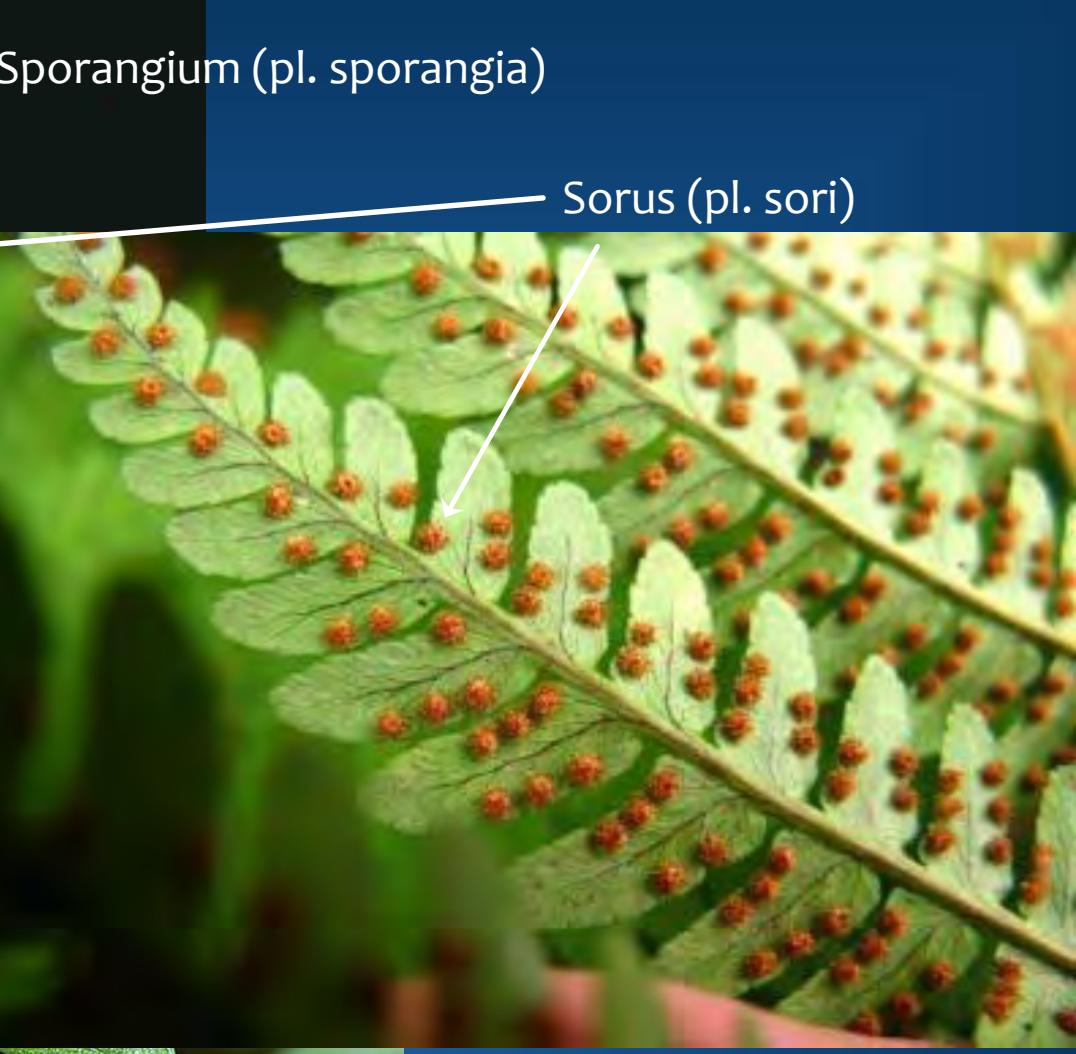
- Leaves w/ recurved teeth
- Leaves smaller
 - 70-100 cm long
 - 7-10 cm wide
- Upper leaf surface concave

FERNS

- Ferns are a primitive plant group that do not produce flowers or fruits.
- The leaves of ferns are often called **fronds**
- Leaflets are called **pinnae** (1st order segments) or **pinnules** (2nd order or greater segments)



Sporangium (pl. sporangia)



Sorus (pl. sori)



Indusium

SWORD FERN

Nephrolepis cordifolia

WILD BOSTON FERN

Nephrolepis exaltata



Nephrolepis cordifolia
Photo by Dennis Girard



Nephrolepis exaltata
Photo by Keith Bradley

SWORD FERN

Nephrolepis cordifolia



- Roots with tubers
- Scales on rachis two colors
- Pinnae (leaflets) blunt-tipped

WILD BOSTON FERN

Nephrolepis exaltata



- Roots lacking tubers
- Scales on rachis one color
- Pinnae more pointed at apex

SWORD FERN

Nephrolepis cordifolia



WILD BOSTON FERN

Nephrolepis exaltata



SWORD FERN

Nephrolepis cordifolia



Nephrolepis cordifolia

Photo by Shirley Denton

PLUME POLYPODY

Pecluma plumula



Pecluma plumula

Photo by John Lanzer

SWORD FERN

Nephrolepis cordifolia



PLUME POLYPODY

Pecluma plumula



- Rarely epiphytic
- Pinnae serrate
- Kidney-shaped indusium

- Usually epiphytic
- Pinnae entire
- No indusium

SWORD FERN

Nephrolepis cordifolia



PLUME POLYPODY

Pecluma plumula



HERBS
and
GRASSES

RATTLEBOX

Sesbania punicea



BLADDERPOD

Sesbania vesicaria

Sesbania vesicaria
Photo by Shirley Denton



RATTLEBOX

Sesbania punicea



- Plants woody
- Flowers yellowish in center, but without distinctive eye
- Fruit 4-angled

BLADDERPOD

Sesbania vesicaria



- Plants mainly herbaceous
- Flowers yellow to tri-colored with a distinctive yellow eye
- Fruit flattened (2-angled)

RATTLEBOX

Sesbania punicea



BLADDERPOD

Sesbania vesicaria



PERUVIAN PRIMROSEWILLOW

Ludwigia peruviana



Ludwigia peruviana
Photo by Matthew Merritt



Ludwigia peruviana
Photo by Allen Rootman

ANGLESTEM PRIMROSEWILLOW

Ludwigia leptocarpa



PERUVIAN PRIMROSEWILLOW

Ludwigia peruviana



ANGLESTEM PRIMROSEWILLOW

Ludwigia leptocarpa



- Overall larger plant/shrub
- Larger flower
- Usually 4 petals
- Fruits square, broad, to 3 cm long
- Smaller plant/herb
- Smaller flower
- Usually 5 petals
- Fruits narrowly cylindrical, to 5 cm long

PERUVIAN PRIMROSEWILLOW

Ludwigia peruviana



ANGLESTEM PRIMROSEWILLOW

Ludwigia leptocarpa



anglestem primrose willow
Ludwigia leptocarpa
Photo by Ann Murray
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PRAXELIS

Praxelis clematidea



Praxelis clematidea
Photo by Alan Franck



BLUE MISTFLOWER

Conoclinium coelestinum



Conoclinium coelestinum
Photo by Mary Keim



PRAXELIS

Praxelis clematidea



- Crushed leaves have a pungent odor of cat urine
- Phyllaries deciduous (absent in fruit)
- Flower heads more than 0.5 cm long

BLUE MISTFLOWER

Conoclinium coelestinum



- Crushed leaves may be fragrant, but not of cat urine
- Phyllaries persistant (present in fruit)
- Flower heads less than 0.5 cm long

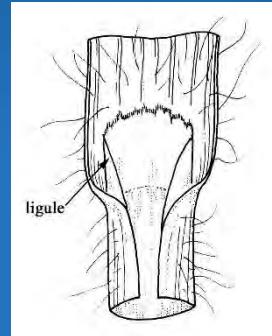
A NOTE ABOUT GRASSES

Grasses (Poaceae) have a special leaf structure consisting of

- 1) the **blade** – the part of the leaf above the sheath,
- 2) the **sheath** – the lower part of the leaf that envelopes the stem,
- 3) the **ligule** – a flap-like membrane or line of hairs on the inside of the leaf at the junction of the blade and the sheath.



Membranous



Ciliate

COCON GRASS

Imperata cylindrica

BROOMSEDGE BLUESTEM

Andropogon virginicus



Andropogon virginicus

Photo by Shirley Denton



COGON GRASS

Imperata cylindrica



BROOMSEDGE BLUESTEM

Andropogon virginicus



- Rhizomatous
- Midvein of leaf white and often offset
- Clumping
- Midvein of leaf usually centered

COCON GRASS

Imperata cylindrica



Imperata cylindrica

Photo by Shirley Denton

BROOMSEDGE BLUESTEM

Andropogon virginicus



Andropogon virginicus

Photo by Dennis Girard

COCON GRASS

Imperata cylindrica



Imperata cylindrica

Photo by Frank Soltis

YELLOW INDIANGRASS

Sorghastrum nutans



*Sorghastrum
nutans*

Photo by Betty Wargo



COGON GRASS

Imperata cylindrica



- Midvein of leaf white and often offset
- Ligule short (0.2-3.5 mm)
- Large fuzzy panicle of flowers, silvery white and cylindrical

YELLOW INDIANGRASS

Sorghastrum nutans



- Midvein of leaf usually centered
- Ligule long (2-6 mm)
- Plume-like panicle of flowers, bronze yellow

COGON GRASS

Imperata cylindrica



YELLOW INDIANGRASS

Sorghastrum nutans



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TORPEDO GRASS

Panicum repens



MAIDENCANE

Panicum hemitomon



TORPEDO GRASS

Panicum repens



- Plants shorter (20-90 cm tall), leaves narrower
- Rhizomes sharp-pointed
- Inflorescence broader

MAIDENCANE

Panicum hemitomon



- Plants taller (50-200 cm tall), leaves broader
- Rhizomes not sharp
- Inflorescence narrow (to 1 cm wide)

WEST INDIAN MARSH GRASS

Hymenachne amplexicaulis

MAIDENCANE

Panicum hemitomon



WEST INDIAN MARSH GRASS

Hymenachne amplexicaulis



- Ligules 1-2.5 mm long
- Internodes with solid white pith
- Base of leaf blade clasping

MAIDENCANE

Panicum hemitomon

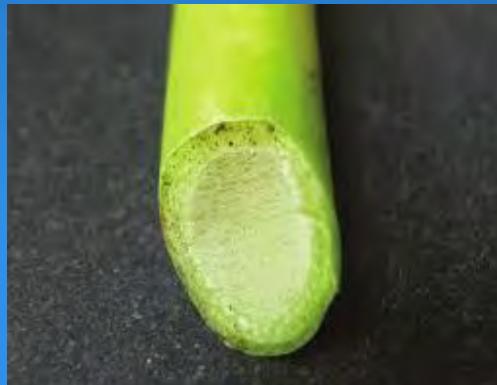


- Ligules <1 mm long
- Internodes without solid white pith
- Base of leaf cordate

WEST INDIAN MARSH GRASS

Hymenachne amplexicaulis

Hymenachne amplexicaulis
Photo by William Overolt



MAIDENCANE

Panicum hemitomon



WEST INDIAN MARSH GRASS

Hymenachne amplexicaulis



Hymenachne amplexicaulis
Photo by William Overholt

AMERICAN CUPSCALE

Sacciolepis striata



American cupscale-grass
Sacciolepis striata
Photo by A. Murray
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WEST INDIAN MARSH GRASS

Hymenachne amplexicaulis



- Ligules 1-2.5 mm long
- Internodes with solid white pith
- Base of leaf blade clasping

AMERICAN CUPSCALE

Sacciolepis striata



- Ligules <1 mm long
- Internodes without solid white pith
- Base of leaf cordate

BURMA REED

Neyraudia reynaudiana



Neyraudia reynaudiana

COMMON REED

Phragmites australis



Phragmites australis



BURMA REED

Neyraudia reynaudiana



- Ligules on both sides of leaf (line of hairs around collar)
- Glabrous internodes

COMMON REED

Phragmites australis



- Ligule only on inside of leaf
- Pubescent internodes

NAPIER GRASS

Pennisetum purpureum



COMMON REED

Phragmites australis



NAPIER GRASS

Pennisetum purpureum



- Ligules 1.5 to 5 mm long
- Inflorescence a dense terminal panicle

COMMON REED

Phragmites australis



- Ligules about 1 mm long
- Inflorescence a bushy panicle

NAPIER GRASS

Pennisetum purpureum



COMMON REED

Phragmites australis



NAPIER GRASS

Pennisetum purpureum



Ligule on Napier grass

COMMON REED

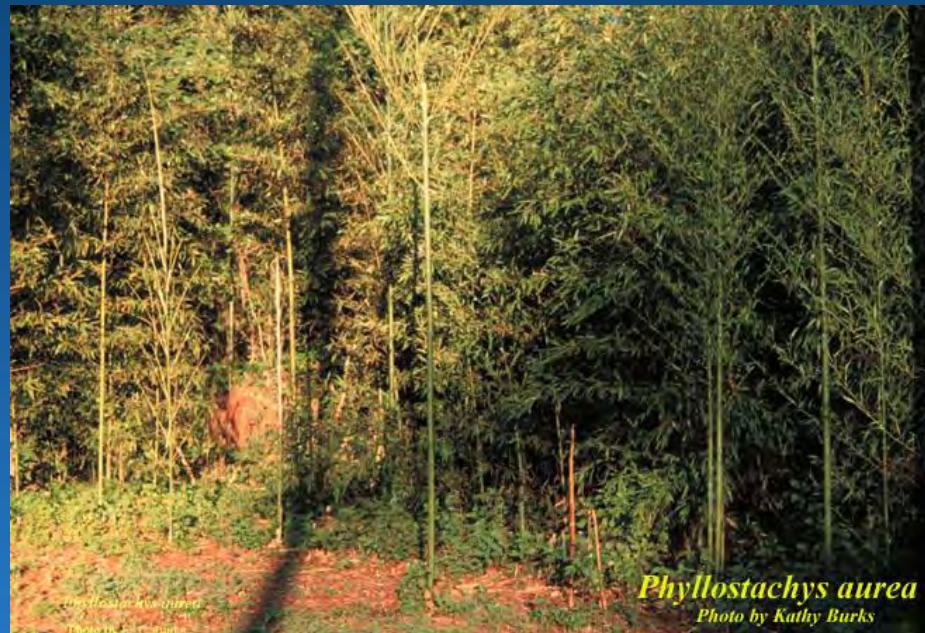
Phragmites australis



Ligule on common reed

GOLDEN BAMBOO

Phyllostachys aurea



Phyllostachys aurea
Photo by Kathy Burks



Phyllostachys aurea
Photo by Kathy Burks

SWITCHCANE

Arundinaria gigantea



Arundinaria gigantea
Photo by Shirley Denton

GOLDEN BAMBOO

Phyllostachys aurea



- Stem flattened or grooved on one side just above the node
- Swollen band just below node

SWITCHCANE

Arundinaria gigantea



- Stem round
- Node may be swollen, but lacking a swollen band just below the node

TROPICAL NUTRUSH

Scleria microcarpa



Scleria microcarpa

Photo by Alexandra Onisko

TALL NUTGRASS

Scleria triglomerata



TROPICAL NUTRUSH

Scleria microcarpa



- Leaf sheath strongly winged
- Achenes in multiple lax racemes
- Achenes with a large “cupula” at base

TALL NUTGRASS

Scleria triglomerata



- Stem sharply angled, but leaf sheath not winged
- Achenes in 1 to several clusters
- Achenes with 3-lobed disk at base and subtended by bracts, but no “cupula”

TROPICAL NUTRUSH

Scleria microcarpa



Scleria microcarpa
Photo by Joshua Campbell

TALL NUTGRASS

Scleria triglomerata



Scleria triglomerata
Photo by Shirley Denton

Scleria triglomerata
Photo by Joshua Campbell

VINES

CHINESE WISTERIA

Wisteria sinensis

AMERICAN WISTERIA

Wisteria frutescens



Wisteria frutescens
Photo by Fred Nation

CHINESE WISTERIA

Wisteria sinensis



- Leaves longer (to 40 cm)
- Flowers just before or as leaves are emerging
- Inflorescence longer (up to 40 cm long)

AMERICAN WISTERIA

Wisteria frutescens



- Leaves shorter (to 30 cm)
- Flowers after leaves have appeared
- Inflorescence shorter (up to 25 cm long)

CHINESE WISTERIA

Wisteria sinensis



AMERICAN WISTERIA

Wisteria frutescens

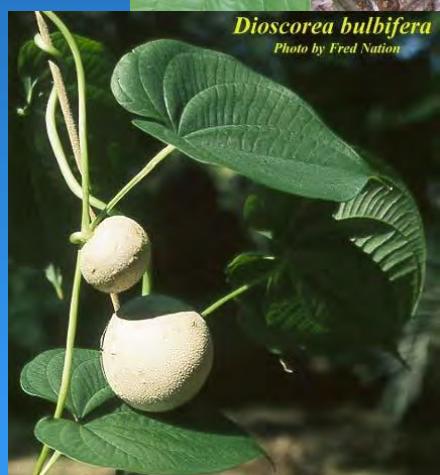


AIR-POTATO

Dioscorea bulbifera



Dioscorea bulbifera
Photo by Fred Nation



FLORIDA YAM

Dioscorea floridana

Dioscorea floridana

Photo by Shirley Denton



AIR-POTATO

Dioscorea bulbifera



- Stems have aerial tubers
- Leaves larger, 9-11 nerved
- Secondary veins often prominent

FLORIDA YAM

Dioscorea floridana



- Stems lacking tubers
- Leaves smaller, 7 nerved
- Secondary veins less prominent

JAPANESE HONEYSUCKLE

Lonicera japonica



Lonicera japonica
Photo by Fred Nation



Lonicera japonica
Photo by Allen Boatman

TRUMPET HONEYSUCKLE

Lonicera sempervirens



Lonicera sempervirens
Photo by Shirley Denton

JAPANESE HONEYSUCKLE

Lonicera japonica



TRUMPET HONEYSUCKLE

Lonicera sempervirens



- Leaves pubescent or glabrous, but not glaucous
- Leaf apex acute to slightly acuminate
- Flowers white to creamy yellow

- Leaves with a glaucous underside
- Leaf apex rounded
- Flowers red

JAPANESE HONEYSUCKLE

Lonicera japonica



Lonicera japonica
Photo by Allen Boatman

TRUMPET HONEYSUCKLE

Lonicera sempervirens



Lonicera sempervirens

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BEACH VITEX

Vitex rotundifolia



UGA2116025

RAILROAD VINE

Ipomoea pes-caprae ssp. *brasiliensis*



BEACH VITEX

Vitex rotundifolia



- Opposite leaves
- Woody growth
- Panicles of smaller blue flowers

RAILROAD VINE

Ipomoea pes-caprae ssp. *brasiliensis*



- Alternate leaves
- Herbaceous
- Solitary, “morning glory” flowers

BEACH VITEX

Vitex rotundifolia



RAILROAD VINE

Ipomoea pes-caprae ssp. brasiliensis





THANK YOU!!

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