

# Central Texas Wetland Plants



## Field Guide



## About This Guide

*Central Texas Wetland Plants* is a collection of institutional knowledge and photos taken in and around the Austin area. It is not intended to be comprehensive, but rather to be used as a supplement to other resources when identifying plants in Central Texas. Special Thanks to wetland biologist emeritus Mike Lyday, whose 20 years of service, dedication and experience established the foundation for wetland protection in the City of Austin.

## Wetland Indicator Categories

- **Obligate Wetland (OBL):** Occur almost always in wetlands (probability >99%)
- **Facultative Wetland (FACW):** Usually occur in wetlands (67%-99%)
- **Facultative (FAC):** Equally likely to occur in wetlands or nonwetlands (34%-66%)
- **Facultative Upland (FACU):** Occasionally found in wetlands (1%-33%)
- **Obligate Upland (UPL):** Occur almost always in nonwetlands in the specified region

A positive (+) or negative (-) sign is used with the FAC category to indicate a regionally higher or lower frequency of being found in wetlands, respectively.

**Photo credits:** Mike Lyday, Bill Carr, Andrew Clamann, Morgan Grubbs, Emily Yeoman, and Scott Hiers

## Table of Contents:

Equisetaceae (horsetail) [1]. . . . .	p. 2
Polypodiaceae (true ferns) [2] . . . . .	p. 4
Marsiliaceae (water clover) [1] . . . . .	p. 8
Azollaceae (water fern) [1] . . . . .	p.10
Cupressaceae (cypress, redwood) [1] . . . . .	p. 12
Lauraceae (laurel) [1]. . . . .	p. 14
Saururaceae [1]. . . . .	p. 16
Nelumbonaceae (lotus) [1] . . . . .	p. 18
Nymphaeaceae (water-lily) [3] . . . . .	p. 20
Cabombaceae (water-shield) [1] . . . . .	p. 26
Ceratophyllaceae (hornwort) [1] . . . . .	p. 28
Ranunculaceae (buttercup) [2] . . . . .	p. 30
Platanaceae (sycamore) [1]. . . . .	p. 34
Utricaceae (nettle) [1]. . . . .	p. 36
Fagaceae (beech) [1] . . . . .	p. 38
Polygonaceae (jointweed, knotweed) [6] . . . . .	p. 40
Malvaceae (hibiscus) [1] . . . . .	p. 52
Salicaceae (willow) [1] . . . . .	p. 54
Brassicaceae (Cruciferae, mustard) [1]. . . . .	p. 56
Primulaceae (water pimpernel, brookweed) [1]. . . . .	p. 58
Fabaceae (legume) [3] . . . . .	p. 60
Haloragaceae (water-milfoil) [3] . . . . .	p. 66
Lythraceae (loosestrife) [3] . . . . .	p. 72
Onagraceae (evening primrose) [4]. . . . .	p. 78
Aquifoliaceae (holly) [1] . . . . .	p. 86
Aceraceae (maple) [1] . . . . .	p. 88
Apiaceae (carrot) [3] . . . . .	p. 90
Loganiaceae (strychnine, logania) [1] . . . . .	p. 96

## Table of Contents cont'd:

Lamiaceae (mint) [2] . . . . .	p. 98
Verbenaceae (vervain, verbena) [1]. . . . .	p. 102
Callitrichaceae (water-starwort) [1]. . . . .	p. 104
Oleaceae (olive) [1]. . . . .	p. 106
Scrophulariaceae (figwort) [4] . . . . .	p. 108
Acanthaceae (acanthus, petunia) [1] . . . . .	p. 116
Lentibulariaceae (bladderwort) [1] . . . . .	p. 118
Campanulaceae (bluebell) [1] . . . . .	p. 120
Rubiaceae (coffee) [2] . . . . .	p. 122
Caprifoliaceae [1]. . . . .	p. 126
Asteraceae (sunflower) [10]. . . . .	p. 128
Alismataceae (arrowhead) [4]. . . . .	p. 148
Hydrocharitaceae (tape grass) [2] . . . . .	p. 156
Potamogetonaceae (pondweed) [1]. . . . .	p. 160
Arecaceae (Palmae, palm) [1] . . . . .	p. 162
Araceae (Jack in the pulpit) [2]. . . . .	p. 164
Lemnaceae (duck-weed) [2] . . . . .	p. 168
Juncaceae (rush) [4] . . . . .	p. 172
Cyperaceae (sedge) [24] . . . . .	p. 180
Poaceae (grass) [13] . . . . .	p. 228
Typhaceae (cattail) [2] . . . . .	p. 254
Cannaceae (canna) [1] . . . . .	p. 258
Marantaceae (arrowroot) [1] . . . . .	p. 260
Pontederiaceae (pickerelweed) [3] . . . . .	p. 262
Lilaceae (lily) [1] . . . . .	p. 268

***Equisetum laevigatum***

horsetail, scouring rush

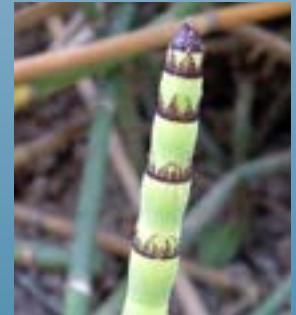
Texas Native

***Equisetum laevigatum***

horsetail, scouring rush

**Characteristics:**

- Fern Ally: rhizomatous (blackish) evergreen perennial
- Stems: erect green, cylindrical, fluted, jointed, 0.3-1.5 m tall, simple or whorled with branches, solid nodes and hollow internodes, rough with coats of silica
- Leaves: minute (toothed sheaths at nodes)
- Sporophylls: aggregated into a cone or strobile at apex of main stem, peltate scales cover sporangia
- Similar plants: *E. hyemale* has dark girdled sheaths and can be larger (to 3 m tall) and rougher than *E. laevigatum*
- Mar.-Late Fall





FacW-

*Polypodiaceae (true ferns)*

## *Adiantum capillus-veneris*

Southern maiden hair fern

Texas Native

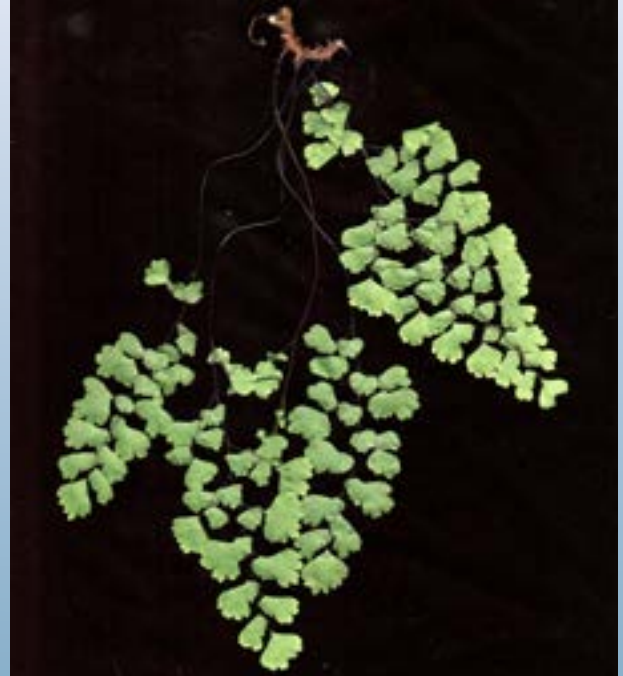


FacW-

*Polypodiaceae (true ferns)*

## *Adiantum capillus-veneris*

Southern maiden hair fern



### Characteristics:

- Fern: common fern usually growing from wet rock ledges or tufa formations, rhizomatous
- Stipes: dark lustrous
- Fronds: pinna pinnate 2+, thin, alternate, wedge-shaped lobules crenate, bright green numerous, 40-150 cm long, glabrous, lax, petiolate (to 18 cm), obvate
- Sori marginal

Fac

Polypodiaceae (true ferns)

## ***Thelypteris kunthii***

widespread maiden fern, river fern

Texas Native

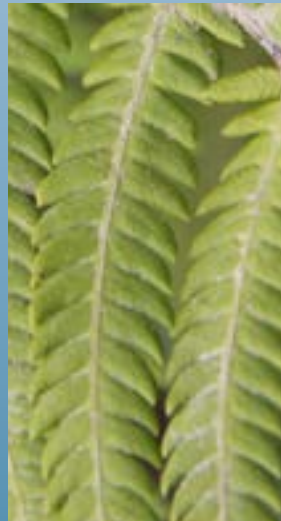


Fac

Polypodiaceae (true ferns)

## ***Thelypteris kunthii***

widespread maiden fern, river fern



### **Characteristics:**

- Fern: rhizomatous, 0.5-1.5 m tall
- Fronds: erect, 30-70 cm long, blades lanceolate, lowest pinnae longest, 30-70 cm long, 1 1/2 pinnate (2nd pinnatifid)
- Rachis: pubescent (silvery-white), pinnae numerous, sessile, veins somewhat pubescent, pinnules numerous, linear oblong, rounded, margins rolled backward, sori medial, dorsal on veins
- Indusia: large and persistent, hairy



Obl

Marsileaceae (water clover)

***Marsilea vestita (M. uncinata)***

water clover, southern water fern



Obl

Marsileaceae (water clover)

***Marsilea vestita (M. uncinata)***

water clover, southern water fern



**Characteristics:**

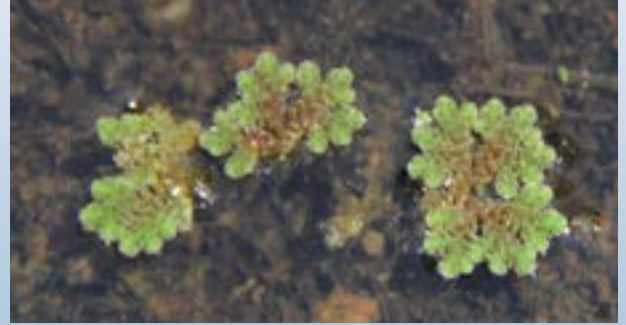
- Fern: 6-60 cm tall, rhizomes slender
- Leaves: on long thin petioles (to 19 cm), palmately divided into 4 obovate pinnae (looks like 4-leaf clover), sporocarps on stalks protruding as basal bumps covered by reddish hair
- Similar plants: *M. tenifolia* if pinnae are narrow; *M. macropoda* if petioles > 19 cm
- Mar.-Oct.

***Azolla caroliniana***

Carolina mosquito fern

***Azolla caroliniana***

Carolina mosquito fern

**Characteristics:**

- Fern: small reddish or green floating, mat forming plant
- Stems: pinately branched but concealed by imbricating leaves
- Leaves: 2-lobed (one floating and the other submersed), sporocarps in 1-2 pairs on lower leaf
- Similar plants: duck weed (*Lemna* spp.)
- Roots: hanging

Obl

Cupressaceae (cypress, redwood)

## *Taxodium distichum*

bald cypress

Texas Native



Obl

Cupressaceae (cypress, redwood)

## *Taxodium distichum*

bald cypress



### Characteristics:

- Tree: up to 50 m tall, rounded top, tapering trunk (buttressed), produces “knees” from roots (for starch storage), reddish-brown to gray scaly/fibrous ridged bark
- Leaves: deciduous (dull orange-brown in Autumn), alternate, flat, 2-ranked and feathery linear, 1-1.5 cm long
- Flowers: panicle 10-12 cm long of small staminate cones, female cone globose (25 mm across)
- Spring (Seeds in Fall)



***Lindera benzoin***  
northern spicebush



**Characteristics:**

- Shrub: deciduous perennial, aromatic
- Leaves: simple, alternate, entire, obovate, tip somewhat extended, to 14 cm long and 6 cm wide, upper surface dark green, lower surface lighter
- Flower: small, 3-merous, greenish/yellow, appear before leaves
- Fruit: fleshy berries, red, 1 cm oblong, single or in clusters
- Feb.

***Lindera benzoin***  
northern spicebush



***Saururus cernuus***

lizard's tail

**Characteristics:**

- **Forb:** colony-forming upright perennial, to 90 cm tall
- **Stem:** no leaves below, simple or branched
- **Leaves:** cauline, cordate-ovate with converging veins, to 15 cm long
- **Flowers:** to 30 cm long, peduncled, nodding, with crowded white flowers and stamens with long, slender filaments
- May-Aug.

***Saururus cernuus***

lizard's tail



***Nelumbo lutea***

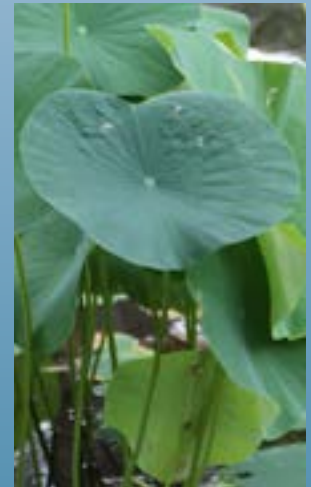
American lotus, yellow lotus

**Characteristics:**

- Forb: perennial robust floating aquatic, rooted in mud with both thin and banana-shaped rhizomes
- Leaves: round, to 70 cm diameter, floating or held above water, glabrous, petioles to 1 m, peltate, not notched
- Flowers: solitary, large (to 25 cm wide), held above water on long peduncles, petals large and many, yellowish, stamens numerous and spirally arranged, pistils numerous sunken in pits in flat upper surface, inverted-conical, erect receptacle becoming dry and hard and brown
- Fruits: acorn-like, hard 1 seeded (1 cm diameter)
- June-Sept.

***Nelumbo lutea***

American lotus, yellow lotus





Obl

Nymphaeaceae (water-lily)

***Brasenia schreberi***

water shield

Texas Native



Obl

Nymphaeaceae (water-lily)

***Brasenia schreberi***

water shield



**Characteristics:**

- Forb: perennial, roots and stem slender
- Leaves: simple, alternate, peltate to 10 cm alternate, floating, oval, rounded ends, entire, thick, upper smooth, lower very slimy and purple, leaf stalk curly and slimy
- Flowers: small, 5-6 petals axillary, dull purple
- April-May

Obl

Nymphaeaceae (water-lily)

***Nuphar lutea (Nuphar advena)***

yellow cow-lily, spatter dock



Obl

Nymphaeaceae (water-lily)

***Nuphar lutea (Nuphar advena)***

yellow cow-lily, spatter dock



**Characteristics:**

- **Forb:** perennial floating aquatic, cylindrical rhizomes
- **Leaves:** spirally arranged, emerging from long petioles, floating or emergent and erect, deep sinus at base, broadly ovate, to 30 cm long
- **Flowers:** green to yellow, 25 mm across, small petals numerous and thick, 6 thick sepals wrap around flower
- **Fruit:** ovoid
- **Similar plants:** *Nymphaea* spp., not showy like water lily
- **Mar.-Oct.**

Obl

*Nymphaeaceae* (water-lily)

***Nymphaea odorata***  
white water-lily, fragrant water-lily



Obl

*Nymphaeaceae* (water-lily)

***Nymphaea odorata***  
white water-lily, fragrant water-lily



**Characteristics:**

- Forb: floating aquatic, stout elongate rhizome
- Leaves: floating, round, 9-25 cm wide, narrow deep sinus, subpeltate, green above and purple/red below, margin wrinkled
- Flowers: fragrant and large, sepals dark on back, petals white or rosey and numerous (>25) and long (4.5-9 cm)
- Similar plants: *N. mexicana*\* has yellow petals; *N. elegans*\* has blue petals
- May-Sept.





Obl

*Cabombaceae (water-shield)*

***Cabomba caroliniana***

fanwort



Obl

*Cabombaceae (water-shield)*

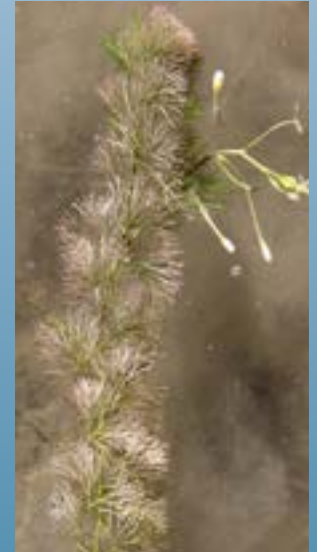
***Cabomba caroliniana***

fanwort



**Characteristics:**

- **Forb:** delicate submerged aquatic rhizomatous perennial, tissue with air chambers
- **Stems:** slender, branched to 2 m
- **Leaves:** polymorphic, few peltate alternate small (1-3 cm long) floating leaves, submerged leaves fan-shaped much palmately thinly dissected & opposite (3 cm long & 6 cm wide)
- **Flowers:** axillary, solitary on thick peduncles, 3-merous, 3 sepals and 3 similar petals, yellow nectar-bearing auricles, carpels free
- **Fruits:** 3-seeded
- **Apr.-July**



Obl

Ceratophyllaceae (hornwort)

## *Ceratophyllum demersum*

coontail, hornwort



Obl

Ceratophyllaceae (hornwort)

## *Ceratophyllum demersum*

coontail, hornwort



### Characteristics:

- **Forb:** perennial, near surface submerged aquatic, bushy-branched, rootless
- **Leaves:** 5-12 whorled, sessile, dichotomously forked 1-3 times (palmate-looking), 4-5 visible teeth on one side, 1-3 cm long
- **Flower:** no perianth, minute involucral bracts visible
- **Similar plants:** *Myriophyllum brasiliense*, *M. pinnatum*, *M. spicatum*, *Cabomba caroliniana*
- May - Sept.



FacW

Ranunculaceae (buttercup)

***Aquilegia canadensis***  
wild columbine



FacW

Ranunculaceae (buttercup)

***Aquilegia canadensis***  
wild columbine



**Characteristics:**

- Forb: perennial, 20-80 cm tall
- Leaves: basal and alternate along stem, palmate 2-3, fan-shaped leaflet
- Flowers: long pediceled, solitary, terminal, nodding, red base, yellow tip, 2-5 cm long, conspicuous 5 basal spurs
- Mar. - May



Obl

*Ranunculaceae (Buttercup)*

## *Ranunculus sceleratus*

celery-leaf butter-cup, cursed crow's foot



Obl

*Ranunculaceae (Buttercup)*

## *Ranunculus sceleratus*

celery-leaf butter-cup, cursed crow's foot



### Characteristics:

- Forb: erect palustrine/aquatic short-lived perennial, to 1 m, profusely branching, hollow stems, glabrous throughout
- Leaves: simple, alternate, reniform, dilated leaf base, to 6 cm long, 10 cm wide, basal petioles up to 25 cm, deeply 3-parted/divided and then lobed, cordate at base, rounded at apex
- Flowers: pedicels to 2 cm long, 5 greenish/yellow sepals and 5 light yellow petals up to 1.5 cm in diameter, green cone in middle of flower, seeds in prominent cylindrical heads
- Mar.-Sept.

Fac+

Platanaceae (sycamore)

## *Platanus occidentalis*

American sycamore



Texas Native

### Characteristics:

- Tree: deciduous, broad-head, to 50 m tall, conspicuously smooth flaky bark, mottled white trunk
- Leaves: simple, alternate, large and broadly ovate-reniform (35 cm long), shallowly pinnately lobed (pointed at tips) or coarsely toothed, truncate base, long petioled, buds completely sheathed by hollow petiole base, pubescent in youth, stipules large and conspicuous,
- Flowers: unisexual in long peduncled spherical heads, sepals and petals minute
- Fruits: in dangling ball-like heads
- Similar plants: *P. mexicana* (Mexican sycamore) has more conspicuously silvery pubescent leaves, overall tree appearance droopier
- Late March-Early April

Fac+

Platanaceae (sycamore)

## *Platanus occidentalis*

American sycamore





***Boehmeria cylindrica***  
false nettle

Texas Native



***Boehmeria cylindrica***  
false nettle



**Characteristics:**

- Forb: perennial, erect to 1.2 m tall, not stinging hairs
- Leaves: simple, usually opposite, oblong lanceolate to 15 cm long, serrate, 3-nerved from the base, long petioled, stipulates distinct
- Flowers: obscure greenish/brown spike-like clusters in axils
- June-Oct.



***Quercus stellata***

Delta post oak



Texas Native

**Characteristics:**

- Tree: medium-sized
- Leaves: alternate, simple, deciduous, thin, blades variable, to 12 cm long and 8 cm wide, obovate, usually 2-4 pairs of lateral rounded lobes (often cross-looking), upper pair often larger, basally narrow, no needle on end of lobes (white oak), lower surface somewhat gray with sparse stellate hairs, upper surface glossy green
- Flowers: pistillate catkins, acorns 2 cm long and no fringe like Bur Oak, spring flowers
- Fruits: appear in the autumn

***Quercus stellata***

Delta post oak



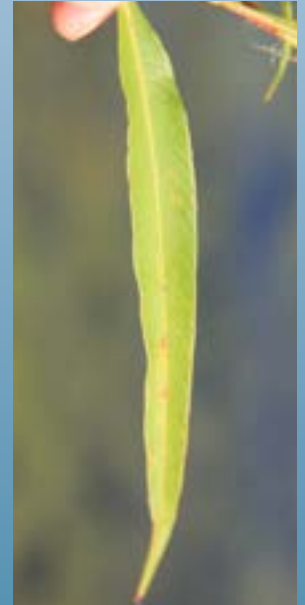
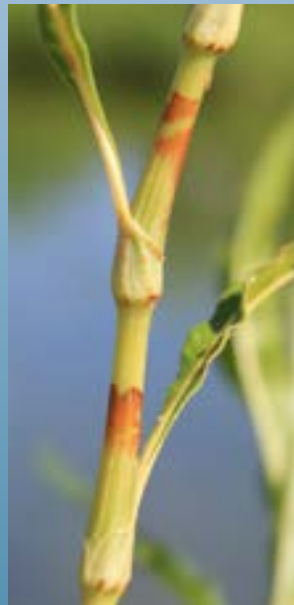
Obl *Polygonaceae* (jointweed, knotweed)

***Polygonum densiflorum***  
dense-flower smartweed



Obl *Polygonaceae* (jointweed, knotweed)

***Polygonum densiflorum***  
dense-flower smartweed



**Characteristics:**

- Forb: erect perennial, branched, swollen nodes, 0.6 to 2 m tall
- Stems: coarse, nodal sheath has no bristles along top edge
- Leaves: simple, alternate, lanceolate, entire
- Flowers: numerous inflorescence spikes clustered, greenish white to whitish-pink
- June-Nov.

Obl *Polygonaceae* (jointweed, knotweed)

## *Polygonum hydropiper*

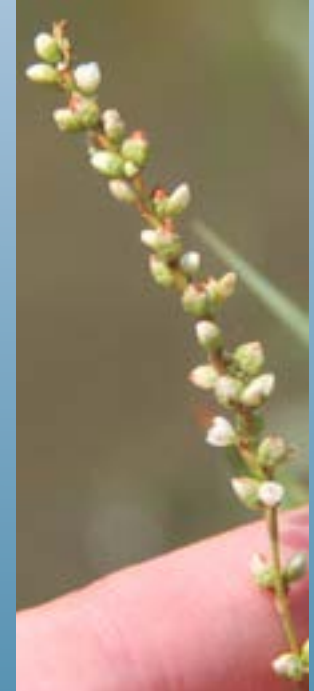
marshpepper smartweed, water smartweed



Obl *Polygonaceae* (jointweed, knotweed)

## *Polygonum hydropiper*

marshpepper smartweed, water smartweed



### Characteristics:

- Forb: ascending perennial, 0.1 to 1 m tall, swollen nodes, nodal sheath has bristles along top edge, tastes peppery
- Leaves: simple, alternate, entire, lanceolate, often purple
- Flowers: numerous but not clustered, nodding, greenish white, pink at young tips
- June-Dec.



Obl *Polygonaceae* (jointweed, knotweed)

***Polygonum hydropiperoides***  
swamp smartweed



Obl *Polygonaceae* (jointweed, knotweed)

***Polygonum hydropiperoides***  
swamp smartweed



**Characteristics:**

- Forb: annual or perennial, to 2 m tall, decumbent, roots at swollen nodes, nodal sheath has bristles along top edge, not peppery tasting
- Leaves: simple, alternate, entire, lanceolate, often purple, numerous, short petioles
- Flowers: interrupted inflorescence and usually over 4 cm long, pink to white
- Apr.-Nov.

FacW- *Polygonaceae* (jointweed, knotweed)

## *Polygonum lapathifolium*

pale smartweed, willow-weed

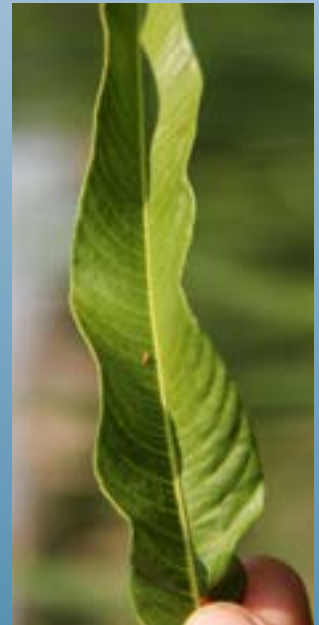
Texas Native



FacW- *Polygonaceae* (jointweed, knotweed)

## *Polygonum lapathifolium*

pale smartweed, willow-weed



### Characteristics:

- Forb: stout erect annual, to 1.5 m tall, conspicuously swollen nodes, nodal sheath ribbed and has no bristles along top edge
- Leaves: simple, alternate, entire, long and wide, lanceolate, short petioles
- Flowers: dense, drooping, pink-white to white
- Apr.-Dec.

FacW *Polygonaceae* (jointweed, knotweed)

**Rumex crispus**  
*curly dock*

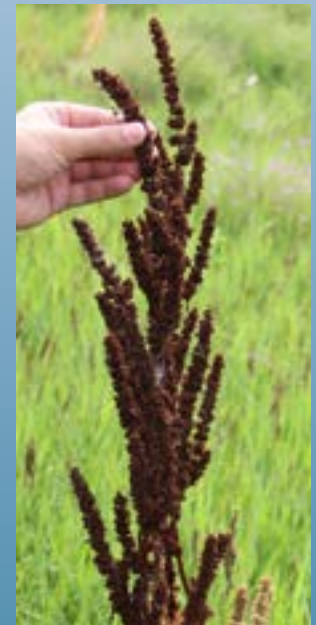


**Characteristics:**

- **Forb:** introduced coarse perennial
- **Stems:** stout, thick joints, erect, no branches, 50-150 cm tall, deep taproot, dark bluish green
- **Leaves:** simple, alternate, lower elliptical to oblong-lanceolate (more narrow than *R. pulcher*), extremely undulate or crinkled on margin, long-petioled, upper smaller, cordate or obtuse at base
- **Flowers:** 6 parted, multiple elongate wandlike branches with few leaves, flower whorls dense, pedicels longer than flowers, greenish
- **Similar plants:** *R. pulcher*
- **Apr.-Sept.**

FacW *Polygonaceae* (jointweed, knotweed)

**Rumex crispus**  
*curly dock*





FacW- *Polygonaceae* (jointweed, knotweed)

***Rumex pulcher***

fiddle dock

Texas Non-Native



FacW- *Polygonaceae* (jointweed, knotweed)

***Rumex pulcher***

fiddle dock



**Characteristics:**

- Forb: perennial herb, erect, 50-80 cm tall, thick joints
- Leaves: simple, alternate, basal wide, long-petioled, 3-15 cm long, cordate at base, somewhat wavy but flatter than *R. crispus*, often pubescent beneath
- Flowers: 6 parted, pedicels very divergent, remote whorls with some bracteal leaves, pedicels not longer than fruit, greenish
- Similar plants: *R. crispus* (more densely flowered)
- May



Obl

Malvaceae (hibiscus)

### *Hibiscus laevis*

Halberd-leaf rosemallow or hibiscus



#### Characteristics:

- Forb: erect perennial to 2.5 m
- Leaves: simple, arrowhead-shaped with basal lobes turned outward (hastate)
- Flower: pink or whitish with purple-red blotch at base (maroon center), 5-8 cm long, capsules glabrous
- May-Nov.

Obl

Malvaceae (hibiscus)

### *Hibiscus laevis*

Halberd-leaf rosemallow or hibiscus



FacW+

Salicaceae (willow)

***Salix nigra***  
black willow



FacW+

Salicaceae (willow)

***Salix nigra***  
black willow



**Characteristics:**

- Tree: to 20 m tall, often multi-trunked, flaky dark bark
- Leaves: simple, alternate, close teeth towards middle, stipulate (semicordate), petioles 4-10 mm, blades linear to narrowly lanceolate (5-15 cm long & 5-15 mm wide), tapering to a point at tip and wedge at base, often sickle-shaped, deep green on both surfaces
- Flowers: catkins (aments) long (2-8 cm), slender-cylindric, staminate and pistillate on separate plants (dioecious)
- Seeds: borne on silky hairs
- Mar.-Apr.



Obl Brassicaceae (Cruciferae, mustard)

*Nasturtium officinale* (*Rorippa nasturtium-aquaticum*)  
true water-cress



Obl Brassicaceae (Cruciferae, mustard)

*Nasturtium officinale* (*Rorippa nasturtium-aquaticum*)  
true water-cress



### Characteristics:

- Forb: introduced aquatic perennial
- Stems: glabrous and floating, creeping, or ascending, rooting at nodes
- Leaves: alternate, pinnately compound with 3-9 segments, leaflets ovate, bluntly toothed, terminal leaflet larger, somewhat fleshy
- Flowers: 4 petals white, 3-4 mm long
- Fruit: pedicels with 2 curved silique fruits 1-2 cm long, plump round seeds
- Mar.-July

Obl

Primulaceae (water pimpernel, brookweed)

## *Samolus parviflorus*

water pimpernel, brookweed

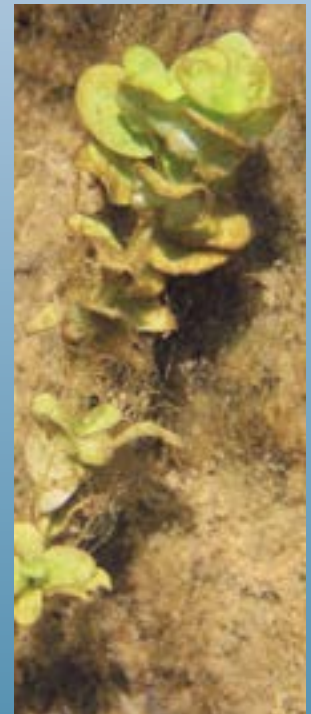


Obl

Primulaceae (water pimpernel, brookweed)

## *Samolus parviflorus*

water pimpernel, brookweed



### Characteristics:

- Forb: perennial, succulent, glabrous
- Stem: simple or diffuse above leafy rosette to 60 cm (usually smaller)
- Leaves: simple, alternate, obovate-spatulate (to 15 cm long & 4 cm wide), rounded at apex, entire, alternate along stem, sessile or winged petiole, submerged growth rosette forms a short column
- Flowers: on wiry pedicels, perfect 5-merous, white, small corolla 2-3 mm
- Mar.-Sept.



***Amorpha fruiticosa***

false indigo bush

**Characteristics:**

- **Shrub:** widespread perennial, 2-3 m
- **Leaves:** deciduous, alternate, once pinnate (terminal leaflet), 10-20 cm long, petioles 2-3 cm, 11-35 elliptic leaflets velvety on lower surface veins, margins entire and parallel, abruptly rounder at both ends with notch at tip
- **Flower:** racemes solitary or cluster of 2-4, small, with only one petal and long stamens, crowded in narrow, spikelike clusters at the ends of branchlets
- **Fruit:** bean pod with blisterlike glands
- **Similar plants:** *Sesbania drummondii*, *S. herbacea*
- April - Aug.

***Amorpha fruiticosa***

false indigo bush



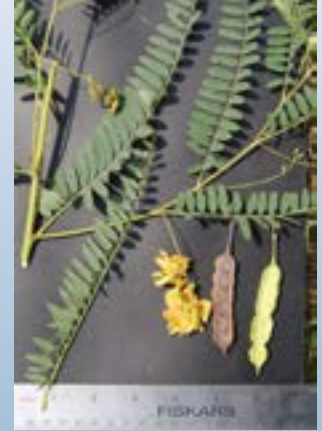


*Sesbania drummondii*

rattle bush

*Sesbania drummondii*

rattle bush

**Characteristics:**

- **Shrub:** lowest part perennial, 0.4-3 m tall, bark smooth & green-light brown,
- **Leaves:** deciduous, alternate, once pinnate, 10-20 cm long, paired leaflets (20-50) openly spaced and no terminal leaflet (15-35 mm long)
- **Flowers:** 13-16 mm long, yellow with red lines, peduncle 1-5 cm long
- **Fruit:** pod square 5-6 cm long, 4-winged, constricted between seeds, tapering to a beak, rattling when dry
- June-Sept.

FacW-

Fabaceae (legume)

***Sesbania herbacea* (*S. exaltata*)**

hemp Sesbania

Texas Native

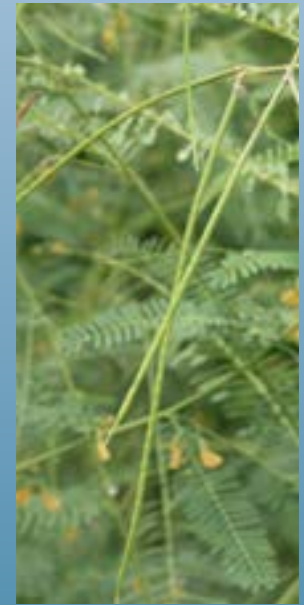


FacW-

Fabaceae (legume)

***Sesbania exaltata*, now *S. herbacea***

hemp Sesbania



**Characteristics:**

- Shrub: robust annual, 0.7-4 m tall, few wide spreading or no branches
- Leaves: deciduous, alternate, once pinnate, 10-30 cm long, paired leaflets (up to 70), 1-3 cm long & 2-6 mm broad, short petioles
- Flowers: peduncle 2-4 cm, yellow flowers 11-16 mm long with beak
- Fruits: narrowly linear, beanlike, not winged, up to 30 beans per pod (*S. vesicaria* has only two seeds)
- Aug.-Oct.



Obl

Haloragaceae (water-milfoil)

***Myriophyllum aquaticum (M. brasiliense)***  
parrot-feather

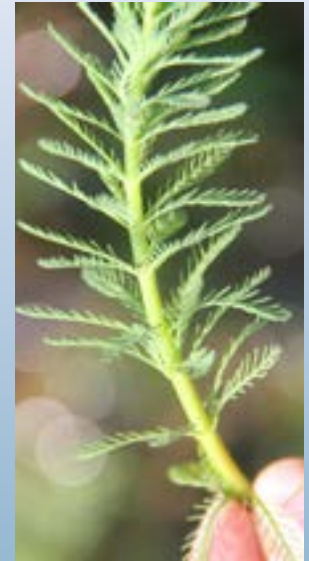
Texas Non-Native



Obl

Haloragaceae (water-milfoil)

***Myriophyllum aquaticum (M. brasiliense)***  
parrot-feather



**Characteristics:**

- **Forb:** creeping in or near water, freely branching, exotic (Brazil)
- **Leaves:** whorled, pinnately divided in threadlike segments (>20), segments 2-5 cm long, upper leaves often yellow
- **Flowers:** axillary, rarely seen
- **Similar plants:** *M. heterophyllum*, *M. pinnatum*, *M. verticillatum*
- Mar.-May



Obl

Haloragaceae (water-milfoil)

***Myriophyllum heterophyllum***  
variable water-milfoil

Texas Native



Obl

Haloragaceae (water-milfoil)

***Myriophyllum heterophyllum***  
variable water-milfoil



**Characteristics:**

- **Forb:** submerged matted perennial
- **Stems:** rather stout
- **Leaves:** whorled in fours or sixes, leaves 2-5 cm long with 7-10 leaflets; emersed leaves firm, lanceolate, to 3 cm long and 1 cm wide
- **Flowers:** whorls of 4-6, bracteoles serrate, petals acute and 1.5-3mm long
- **Fruit:** minutely papillose, beaked
- **Similar plants:** *M. spicatum* (Eurasian milfoil), *Ceratophyllum demersum*
- Apr.-Aug.

*M. heterophyllum* strand

*M. spicatum* strand

Obl

Haloragaceae (water-milfoil)

## *Myriophyllum spicatum*

Eurasian water-milfoil

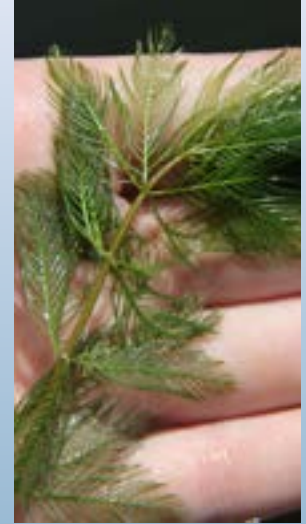


Obl

Haloragaceae (water-milfoil)

## *Myriophyllum spicatum*

Eurasian water-milfoil



### Characteristics:

- Forb: rhizomatous, submerged matted
- Stems: reddish when drying, exotic
- Leaves: whorled (>1 cm apart), 3-5 segments, divided into threadlike segments (>24), segments <2.5 cm long
- Flowers: in axillary whorls, petals reddish
- Fruit: 4 lobed
- Similar plants: *M. heterophyllum* (variable milfoil), OBL, is softer, has sparse leaflets with base leaflets much longer
- Apr.-Sept.



*M. spicatum* leaf

*M. heterophyllum* leaf

Obl

Lythraceae (loosestrife)

***Ammannia coccinea***

toothcup, purple Ammannia

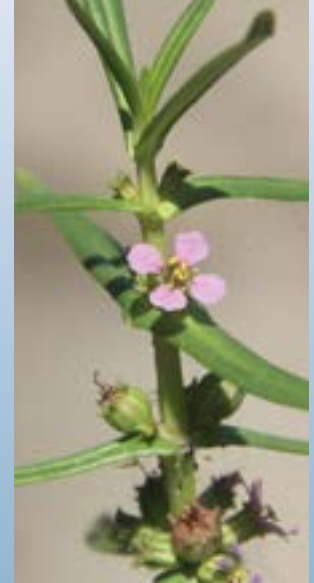


Obl

Lythraceae (loosestrife)

***Ammannia coccinea***

toothcup, purple Ammannia



**Characteristics:**

- Forb: stout, to 50 cm tall, ascending
- Leaves: simple, opposite, linear, cordate clasping (flares at base), acute
- Stem: branched and spongy below, glabrous
- Flowers: whorl of pink/purple 4-petaled flowers
- Fruit: reddish, whorled in axils of leaves (usually 2 flowers per axil in this species)
- Apr.–Nov.



*Obl*

*Lythraceae (loosestrife)*

***Lythrum californicum (Lythrum alatum)***

California loosestrife, winged loosestrife



*Obl*

*Lythraceae (loosestrife)*

***Lythrum californicum (Lythrum alatum)***

California loosestrife, winged loosestrife



**Characteristics:**

- Forb: upright much branched perennial to 1.5 m (usually smaller), creeping woody rootstock, pale green glabrous 4-angled stem
- Leaves: simple, alternate, sessile, firm, narrowly linear to linear-oblong, to 3 cm long, sharp at tip, rounded at base, (wing = ridge below leaf)
- Flowers: leafy but linear and smaller, axillary, calyx tube cylindric 5-7 mm long, bright purple, 6 obovate petals, extended stamens past round stigma
- May-Aug.

***Lythrum ovalifolium***  
stream loosestrife



***Lythrum ovalifolium***  
stream loosestrife



**Characteristics:**

- Forb: uncommon endemic, erect to decumbent perennial to 35 cm high
- Stem: 4-angled & much branched from base
- Leaves: simple, alternate, broadly elliptic, rounded at apex, abruptly contracted at base, to 25 mm long
- Flowers: leafy but smaller, axillary, calyx tube 5-6 mm long, 6 petals obovate, lavender/light purple, 3-4.5 mm long, yellow anthers in throat
- Apr.-June



Obl

Onagraceae (evening primrose)

### *Ludwigia octovalvis*

Mexican seedbox, shrubby water primrose



Obl

Onagraceae (evening primrose)

### *Ludwigia octovalvis*

Mexican seedbox, shrubby water primrose



Dried seed capsule



#### Characteristics:

- **Forb:** well-branched shrubby herb to 1 m tall, square stem
- **Leaves:** simple, alternate, lanceolate, 3-14.5 cm long, petiole 0-1 cm
- **Flower:** axillary, 4 sepals, petals yellow, trumpet shaped tubular ovaries, seed capsule long (1.7-4.5 cm) and thin with sepals stuck at the end, 8 angled, turning red in fall
- Jul.-Oct.



Obl

Onagraceae (evening primrose)

## ***Ludwigia palustris***

marsh seedbox, creeping purslane



Obl

Onagraceae (evening primrose)

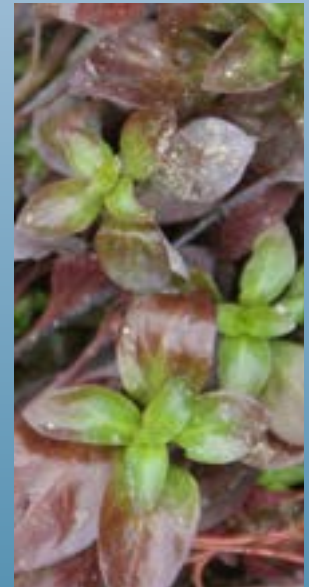
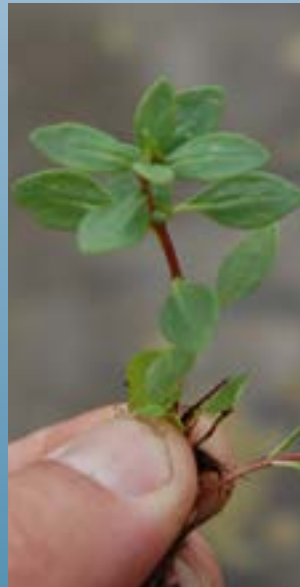
## ***Ludwigia palustris***

marsh seedbox, creeping purslane



### **Characteristics:**

- Forb: herb creeping in mud, rooting at nodes, reddish tinged
- Leaves: simple, opposite, elliptic-lanceolate, acute, glabrous, entire, short petioles 2-10 mm (*L. repens* similar but with longer petioles)
- Flower: axillary, sessile, petals absent, 4 visible green sepals forming a small green flower bud, capsule 2-8 mm with broad green bands at corners, pedicels absent
- Similar plants: *L. peploids*, *L. repens*
- June-Oct.



Obl

*Onagraceae (evening primrose)*

***Ludwigia peploides***

water primrose, floating seedbox

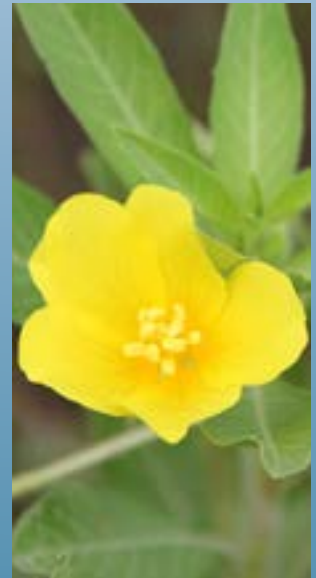


Obl

*Onagraceae (evening primrose)*

***Ludwigia peploides***

water primrose, floating seedbox



**Characteristics:**

- Forb: creeping or floating herb, glabrous red stem
- Leaves: simple, alternate, oblong, entire, petioles 2-40 mm
- Flower: showy yellow corollas, sepals and petals 5, capsules 10-40 mm
- Similar plants: *L. palustris*, *L. repens*, *L. octovalvis*
- May-Oct.

Obl

Onagraceae (evening primrose)

## *Ludwigia repens*

round leaf seedbox



Obl

Onagraceae (evening primrose)

## *Ludwigia repens*

round leaf seedbox



### Characteristics:

- Forb: creeping or floating herb, glabrous, rooting at nodes
- Leaves: simple, opposite, subrotund or narrowly elliptic, entire, petioles 2-40 mm
- Flower: small yellow petals falling off soon, pedicels present, sepals 4, capsules 3.3-7.5 mm
- Similar plants: *L. palustris* (is shorter and has rounded leaves)
- July - Sept.



***Ilex decidua***

deciduous holly, possum haw



Texas Native

***Ilex decidua***

deciduous holly, possum haw

**Characteristics:**

- Shrub: up to 10 m, smooth twigs pale silver/gray with lateral short leafy spurs
- Leaves: deciduous, simple, alternate or fascicled on spur ends, paddle-shaped, petiolate, few obscure rounded teeth at tip with minute glands, puberulent above, glabrous and pale below
- Flower: small, white, at spur tips with leaves, dioecious
- Fruits: globose drupe, bright red/orange crowned by persistent stigma, persistent through winter
- Similar plants: *Ilex vomitoria*
- Mar.-May



***Acer negundo***  
box elder



**Characteristics:**

- Tree: often multi-trunk
- Twigs: green or purplish for 3 years
- Leaves: pinnate (usually 3, sometimes 5 leaflets), opposite, ragged large teeth
- Flowers: greenish appearing just before leaves (Feb.)
- Fruit: samaras
- Similar plants: the 3 leaflets look like poison ivy, but box elder has opposite leaves and poison ivy has alternate leaves

***Acer negundo***  
box elder



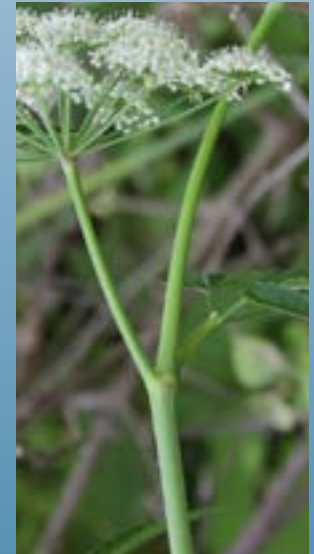
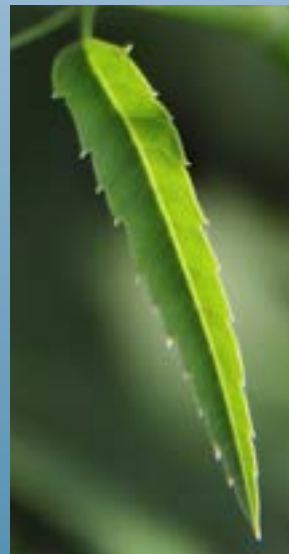


***Cicuta maculata***

spotted water-hemlock, beaver poison

***Cicuta maculata***

spotted water-hemlock, beaver poison

**Characteristics:**

- Forb: native perennial, erect, glabrous, waxy coating, to 0.6-1.8 m tall, roots fleshy, spotted purple when blooming
- Leaves: alternate, 1-3X pinnate, ovate to 30 cm long, lanceolate serrate acute leaflets 2-12 cm long
- Flower: compound umbels on long peduncles, 7-15 cm across, white, rays unequal
- Fruits: oval, corky, ribbed
- May-Sept.



***Conium maculatum***

poison hemlock

**Texas Non-Native*****Conium maculatum***

poison hemlock

**Characteristics:**

- **Forb:** introduced poisonous biennial, erect, glabrous, to 0.5-3 m tall, unpleasant odor, root carrot-like
- **Stem:** purplish-spotted, hollow, much branched
- **Leaves:** opposite, broadly ovate, 3X pinnate, 15-30 cm long, ultimate divisions pinnately incised
- **Flower:** inflorescence a compound umbel, 5-8 cm across, terminal or axillary, white,
- **Fruit:** broadly ovoid, glabrous, ribbed
- May-June

***Hydrocotyle verticillata***

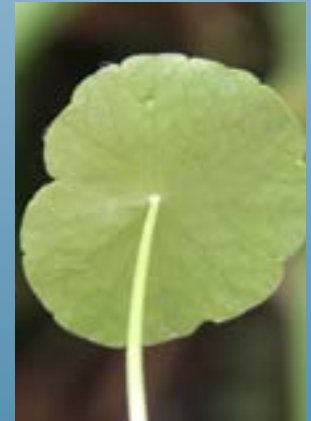
water-pennywort

**Characteristics:**

- Forb: creeping, floating, submerged perennial
- Leaves: shiny, round, peltate, to 6 cm diameter, shallow lobes on margins, petioles to 35 cm (usually shorter)
- Flower: spike with 2-7 small flowered whorls
- Similar plants: *H. umbellata*, Big Pennywort, Obl, blades without lobes to 7.5 cm, inflorescence a simple uninterrupted umbel; *H. ranunculoides*, Floating Pennywort, OBL, leaves not peltate & to 8 cm; *Dichondra recurvata*, Pony Foot, Fac, leaf not peltate, notched, 1-2 flowers with recurved pedicels (in Morning Glory family)
- May-Oct.

***Hydrocotyle verticillata***

water-pennywort





FacW+

Loganiaceae (*strychnine, logania*)

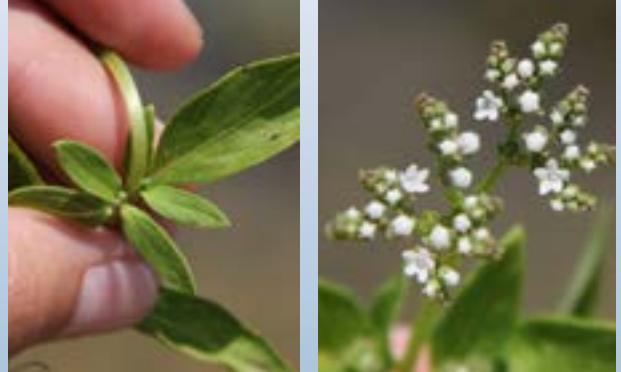
***Mitreola petiolata (Cynoctonum mitreola)***  
miterwort, Lax hornpod



FacW+

Loganiaceae (*strychnine, logania*)

***Mitreola petiolata (Cynoctonum mitreola)***  
miterwort, Lax hornpod



**Characteristics:**

- **Forb:** lax, glabrous annual to 75 cm tall
- **Leaves:** simple, opposite, stipulate, ovate-elliptic to elliptic-lanceolate, 2-8 cm long, tapers to short petiole
- **Flower:** in long peduncles cymes, corolla white-pink tinged, 1.5-2.5 mm long, 5-merous, symetric
- **Fruits:** 2-horned
- **Similar plants:** *M. sessilifolia* has broadly oval, sessile leaves rarely > 2 cm long
- May-Oct.



***Physostegia angustifolia***

narrow leaf false dragon head, obedient plant

**Characteristics:**

- Forb: perennial, stiffly erect to 2 m, rhizomatous
- Leaves: simple, opposite, mostly sessile, rigid, grayish or pale, narrowly lanceolate, narrowing to a base point, serrate, to 13 cm long
- Flowers: leafy hairy-bracted inflorescence, spikes slender and wand-like to 35 cm, usually solitary with few erect laterals, corolla funnelform with inflated throat, pale to deep purple or whitish with purple spots, 2-lipped (upper erect, lower 3-parted), to 3 cm long, calyx hairy
- Similar plants: rare *P. Corellii* leaves are leathery and oblong elliptic and arranged with pairs at right angles or decussate, corolla lavender-pink
- Apr.-July

***Physostegia angustifolia***

narrow leaf false dragon head, obedient plant



***Teucrium canadense***  
American germander, wood sage



**Characteristics:**

- Forb: rhizomatous perennial, to 1 m tall
- Stems: erect, square, branching in inflorescence, pubescent
- Leaves: simple, opposite, sharply toothed or serrate, 6-10 cm long & 2-4 cm broad, narrowly elliptic, acute, narrowing and rounded at base, leaf bottom silvery with pubescence, petioles to 15 mm, purple and hairy at attachment
- Flowers: inconspicuously bractate spikes 20-30 cm long, calyx 5-7 mm, silvery with hairs, corolla 11-16 mm, pale lavender with purple-red lines, missing upper lip like most other mints
- May-July

***Teucrium canadense***  
American germander, wood sage



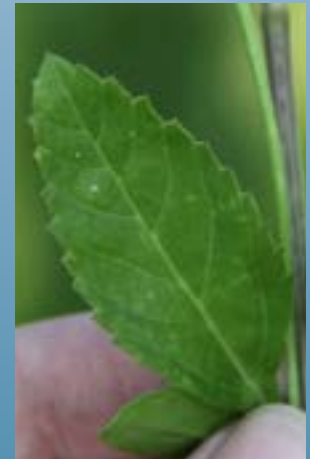
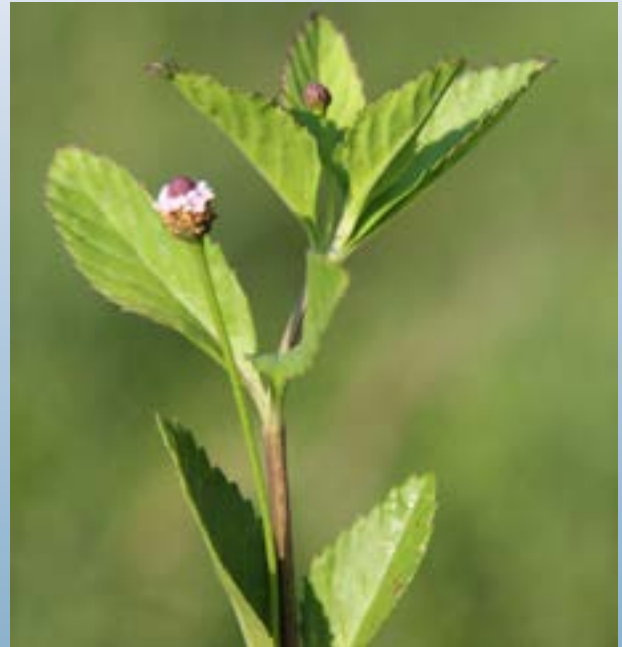
***Phyla lanceolata (Lippia lanceolata)***  
lance-leaf frog fruit



**Characteristics:**

- **Forb:** perennial, procumbent, stems to 60 cm, simple or loosely branched, rooting at nodes, square hairy stem
- **Leaves:** simple, opposite, short to no petioles, blades bright-green on both sides, oblong-lanceolate 18-75 mm long, acute, sharply serrate from tip to past middle (usually >4 teeth per side), cuneate base, conspicuous venation
- **Flowers:** surpassing leaves on peduncles 4-9 mm long, heads globose to cylindric and elongating with age, bractlets closely imbricate and acute, pale-blue, puplish or white
- **Similar plants:** *P. incisa*, Fac, has teeth only in upper third of leaf, usually 2 on each side; *P. strigulosa*, Diamond-Leaf Frogfruit, FacW, leaf blades more triangular and folded like a fan, teeth do not extend below the widest part of the leaf, rare)
- May-Oct.

***Phyla lanceolata (Lippia lanceolata)***  
lance-leaf frog fruit





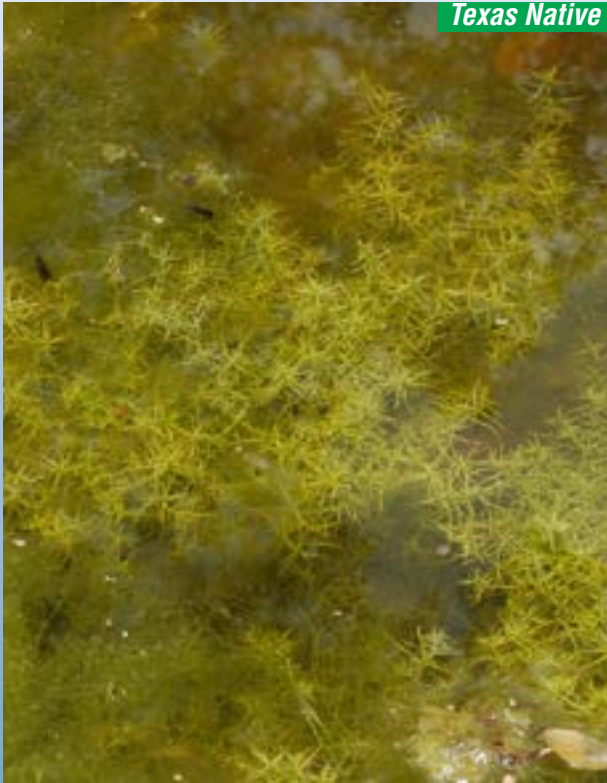
Obl

*Callitrichaceae* (water-starwort)

***Callitriche heterophylla***

large water starwort

Texas Native



Obl

*Callitrichaceae* (water-starwort)

***Callitriche heterophylla***

large water starwort



**Characteristics:**

- Forb: polymorphic, spreading
- Leaves: simple, bright green, often two leaf types, obovate rosettes on floating tops, linear opposite below
- Flower: subtended by 2 small bracts
- Fruits: small heart-shaped in axils, 1-2.5 mm
- Feb.-Sept.

***Fraxinus pennsylvanica***  
green ash

Texas Native

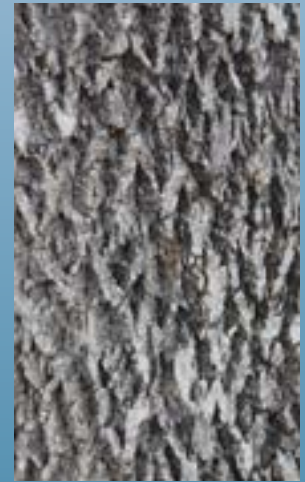


***Fraxinus pennsylvanica***  
green ash



**Characteristics:**

- Tree: to 20 m tall
- Leaves: opposite to 15 cm, pinnate, 5-9 leaflets, elliptic-oblong to lanceolate, acute, margins entire, usually glabrous, bright green above, pale below, petioles to 1 cm
- Flower: compact panicle of winged samaras, each 3-7.5 cm long
- Similar plants: *F. texensis*, Texas Ash, usually has 5 leaflets, more ovate or rounded in shape
- Feb.-Apr.



Obl

Scrophulariaceae (figwort)

***Bacopa monnieri***

coastal water hyssop

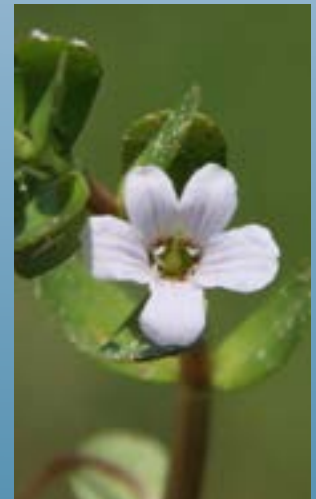


Obl

Scrophulariaceae (figwort)

***Bacopa monnieri***

coastal water hyssop



**Characteristics:**

- Forb: creeping succulent, mat forming on mud flats
- Leaves: simple, opposite, spatulate, to 20 mm long, entire
- Flowers: solitary in nodes, 5 white to pale blue petals (8-10 mm long), pedicels 25 mm long
- Similar plants: *B. rotundiflora*, Disk Water Hyssop, OBL, leaves suborbicular to 35 mm, palmately nerved, 2-4 flowers per upper node, rare
- Apr. - Sept.



Obl

Scrophulariaceae (figwort)

***Bacopa rotundiflora***

disk water hyssop



Obl

Scrophulariaceae (figwort)

***Bacopa rotundiflora***

disk water hyssop



**Characteristics:**

- Forb: creeping succulent, mat forming on mud flats, elongate and pubescent branches
- Leaves: obovate, with clasping bases, distinctly palmately nerved
- Flowers: white, 5 petaled, slender pedicel 2-3 times as long as calyx
- Similar plants: *B. monnieri* has smaller, more elongate leaves
- May-Nov.

Obl

Scrophulariaceae (figwort)

## *Veronica anagallis-aquatica*

water speedwell

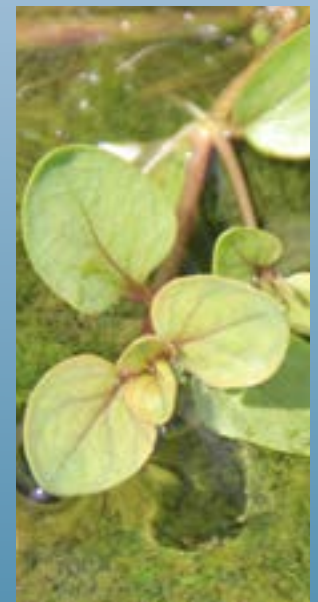


Obl

Scrophulariaceae (figwort)

## *Veronica anagallis-aquatica*

water speedwell



### Characteristics:

- Forb: introduced perennial to 1 m tall, glabrous throughout
- Stems: shortly creeping and rooting at base then ascending erect, purple stem base
- Leaves: simple, opposite, sessile, rounded to clasping bases, oblanceolate, acute, serrate to dentate, axillary shoots (back-up leaves)
- Flowers: many in small-bracted axillary racemes, pedicels 6-8 cm, sepals 4 lanceolate, corolla 5-6 mm wide, pale lavender to blue, lobes with violet lines
- Fruit: an orbicular capsule
- Mar.-Oct.

Obl

Scrophulariaceae (figwort)

## *Veronica peregrina*

purslane or little speedwell, necklace weed



Obl

Scrophulariaceae (figwort)

## *Veronica peregrina*

purslane or little speedwell, necklace weed



### Characteristics:

- Forb: erect annual, to 30 cm tall, spreading, glabrous throughout or with glandtipped hairs
- Leaves: simple, opposite, sessile, linear-oblong, obtuse, usually 2-3 toothed on each side, very short petiole on lower leaves
- Flowers: in terminal raceme spikes, pedicels 1-2 mm, sepals 4, corolla white 2-2.5 mm wide
- Fruits: heart shaped
- Feb.-June



Obl

Acanthaceae (*acanthus*, *petunia*)

## *Justicia americana*

water-willow



Obl

Acanthaceae (*acanthus*, *petunia*)

## *Justicia americana*

water-willow



### Characteristics:

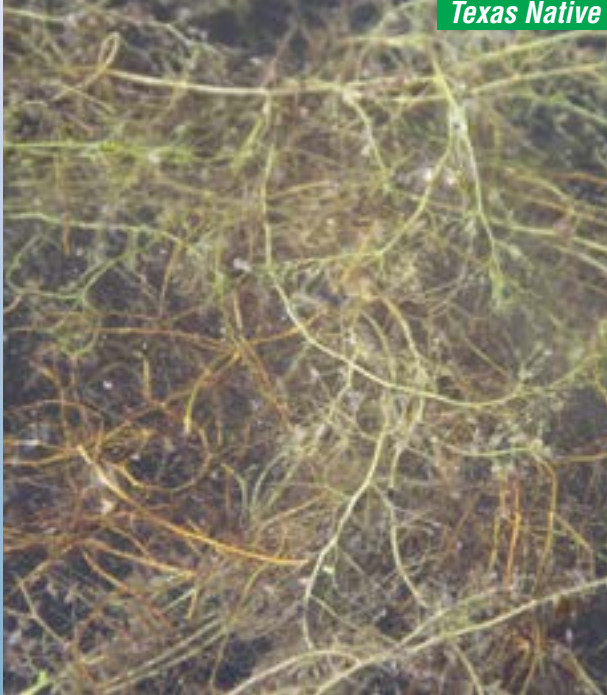
- Forb: rhizomatous perennial, colonial, erect to 1 m, glabrous
- Stem: grooved angled purplish, stem often rooted basally
- Leaves: simple, opposite, lanceolate, fine teeth, sessile to short petiolate, white line around stem where leaf attaches
- Flower: clusters at ends of 15 cm peduncles, calyx 5-parted, corolla violet-white, tube shorter than lips, lower lip with purple dots
- Similar plants: wild petunia
- Apr.-Sept.

Obl

Lentibulariaceae (bladderwort)

***Utricularia gibba***  
humped bladderwort

Texas Native



Obl

Lentibulariaceae (bladderwort)

***Utricularia gibba***  
humped bladderwort



**Characteristics:**

- **Forb:** insectivorous floating aquatic perennial, delicate and entangled
- **Stems:** small dark bladderlike traps along stems/leaves
- **Leaves:** alternate, thread-like, dichotomously branched in 2 filiform segments
- **Flowers:** 1-3, small corolla two lipped, spurred, yellow
- **Fruits:** seeds smooth and winged
- **May-Oct.**



FacW+

Campanulaceae (bluebell)

## *Lobelia cardinalis*

cardinal flower

Texas Native



FacW+

Campanulaceae (bluebell)

## *Lobelia cardinalis*

cardinal flower



### Characteristics:

- Forb: perennial by short basal offshoots, to 2 m tall
- Leaves: simple, alternate, many, thin, glabrous or hairy, lanceolate, irregularly serrate
- Flower: raceme terminal to 50 cm, deep red corolla that splits, foliaceous, poisonous
- May-Dec.



*Cephalanthus occidentalis*

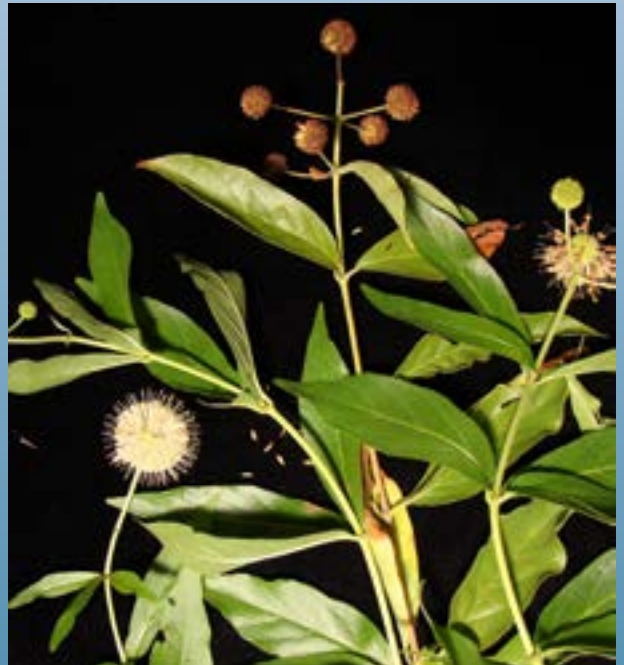
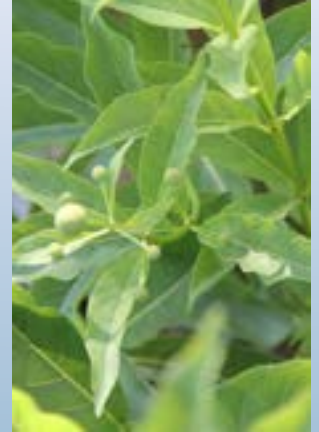
buttonbush

**Characteristics:**

- Forb: bushy shrub 1-15 m tall
- Leaves: simple, opposite or in whorls of 3, short petioles, elliptic-lanceolate, entire, 19 cm long, bright above, petioles 3 cm, prominent lateral veins
- Flower: many individuals, button-like on long peduncles to 10 cm, heads globose, creamy white, 15 mm diameter, anthers extend giving halo effect
- June-Sept.

*Cephalanthus occidentalis*

buttonbush



***Galium tinctorium***

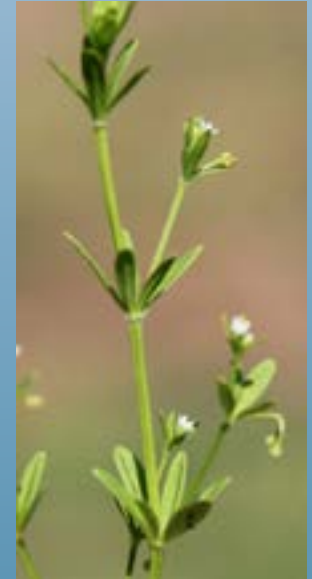
stiff marsh bedstraw, dye bedstraw

**Characteristics:**

- Forb: stiff perennial to 30 cm, smooth, not sticky
- Leaves: whorled, mostly in 5-6's, variable (3-4 infrequent), broadly oblanceolate, entire
- Flowers: small, terminal cymes 2-3 flowers on long pedicles divided into 3 divergent peduncles, white, 3-lobed
- Fruits: 2 round seeds together, blue-black, smooth (used as dye)
- Similar plants: *Galium aparine*
- Mar.-Aug.

***Galium tinctorium***

stiff marsh bedstraw, dye bedstraw





Fac+

Caprifoliaceae

## *Sambucus canadensis*

American elder



Fac+

Caprifoliaceae

## *Sambucus canadensis*

American elder



### Characteristics:

- Shrub: tall perennial to 4 m, becomes woody when tall, pith white in stems
- Leaves: opposite, pinnate, 5-7 weak leaflets, broadly lanceolate, acuminate, sharply toothed, purplish young petioles
- Flowers: small (5 mm wide) in corymbs, corollas creamy white
- Fruit: a 3-stoned purple-black berry-like drupe, 4-6 mm diameter
- May-July



FacW

Asteraceae (sunflower)

*Acmella oppositifolia* var. *repens* (*Spilanthes americana*)  
water daisy, creeping spotflower



FacW

Asteraceae (sunflower)

*Acmella oppositifolia* var. *repens* (*Spilanthes americana*)  
water daisy, creeping spotflower



**Characteristics:**

- Forb: perennial, rhizomatous creeping herb, rooting at nodes; found along banks of Colorado River below Longhorn Dam
- Branches: flowering branches ascending
- Leaves: opposite, petioled, ovate, rhombic to deltoid, 2-4 cm long, serrate
- Flowers: heads solitary on axillary peduncles 5-15 cm long, phyllaries linear, in 2 series, ray flowers few, yellow ray and disk; disk receptacle elongate and conical
- May-Nov.

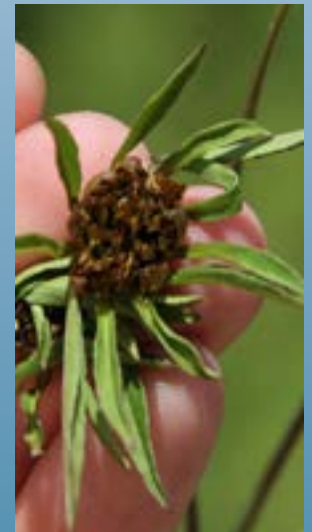
***Bidens frondosa***  
devil's beggar-ticks



**Characteristics:**

- Forb: annual, 0.2-1.2 m tall
- Leaves: petioles 10-60 mm long, opposite, palmately compound, leaflets lanceolate, serrate, terminal leaflet petiolulate
- Flower: heads 1 cm broad, long, phyllaries conspicuously ciliate, ray flowers absent, corollas orange-yellow, 7-10 bracts below flower
- Sept.-Oct.

***Bidens frondosa***  
devil's beggar-ticks



FacW-

Asteraceae (sunflower)

***Conoclinium (Eupatorium) coelestinum***  
mistflower



FacW-

Asteraceae (sunflower)

***Conoclinium (Eupatorium) coelestinum***  
mistflower



**Characteristics:**

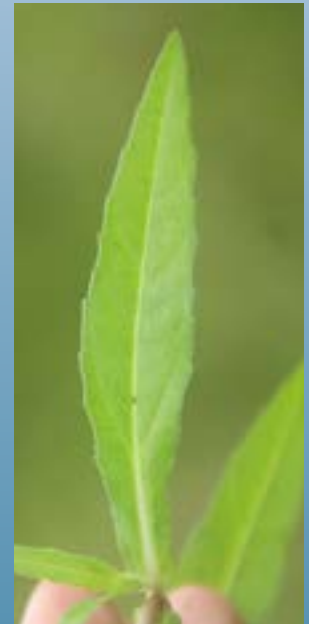
- Forb: perennial, rhizomatous
- Stems: weak to 2 m
- Leaves: simple, opposite, deltoid, long petioles (3-20 mm), pubescent, blunt toothed
- Flower: numerous in cormb-like clusters, light blue/purple
- Similar plants: *E. serotinum*, White Boneset, Fac-, has white flowers and is also found in moist areas
- Summer-Fall



***Eclipta alba***  
yerba de tajo, pipeplant



***Eclipta alba***  
yerba de tajo, pipeplant



**Characteristics:**

- Forb: introduced annual, low, pubescent, freely branching
- Stem: pale purple with appressed hairs
- Leaves: simple, opposite, short petioles to sessile, narrowly elliptic, dark green, usually entire
- Flower: small solitary terminal heads, inconspicuous, bell shaped involucre, numerous white ray flowers, white disk
- Fruit: with star-shaped bract
- Summer-Fall

FacW-

Asteraceae (sunflower)

## *Helenium autumnale*

common sneezeweed, swamp sunflower



FacW-

Asteraceae (sunflower)

## *Helenium autumnale*

common sneezeweed, swamp sunflower



### Characteristics:

- Forb: erect perennial, 30 cm-1 m, branched above, winged stem
- Leaves: simple, alternate, 3-15cm, linear-elliptic, usually serrated
- Flower: on 3-6 cm peduncles, disk yellow globose, rays yellow
- Similar plants: *H. amarum*, FACU, is shorter and has linear leaves
- Sept.-Oct.

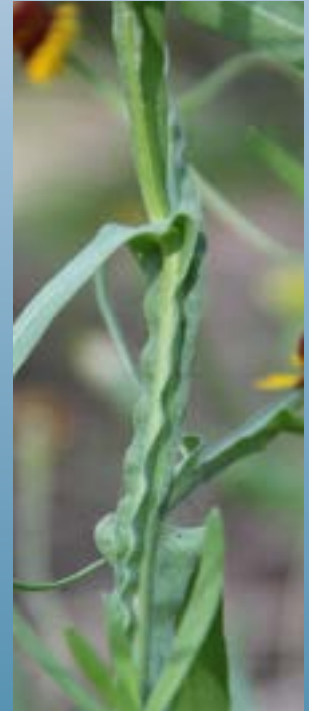
***Helenium elegans***  
elegant sneezeweed



**Characteristics:**

- Forb: erect perennial, 20-120 cm tall, found over limestone stream bottom and seeps
- Leaves: simple, entire, narrowly elliptic to lanceolate or linear, upper stem leaves linear and reduced
- Flowers: disk corollas with reddish brown or yellowish brown lobes, ray flowers yellow with ligules, heads on long peduncled well above the foliage
- May-July

***Helenium elegans***  
elegant sneezeweed





***Iva annua***

marsh elder, sumpweed



Texas Native

**Characteristics:**

- **Forb:** annual 0.4-2 m tall, aromatic
- **Stems:** hairy
- **Leaves:** simple, opposite, ovate-lanceolate, 3-15 cm long, 20-70 mm wide, serrate, (lobed later), 3 veins from bottom of leaf, reduced upward to bracts
- **Flower:** inflorescence spike-like, heads sessile in axils of bracts, phyllaries 3-4 distinct, green
- **Similar plants:** *I. angustifolia*, narrow-leaf sumpweed, has smaller lanceolate leaves, 2-5 cm long, 2-12 mm wide, alternate above, phyllaries united into cup with toothed margin
- Fall

***Iva annua***

marsh elder, sumpweed



FacW+

Asteraceae (sunflower)

***Mikania scandens***

climbing hempweed



FacW+

Asteraceae (sunflower)

***Mikania scandens***

climbing hempweed



**Characteristics:**

- Vine: perennial climbing vine (only vine in Asteraceae), smells good
- Stems: purple, no tendrils
- Leaves: opposite, petioled, elongate deltoid and heart shaped, undulated margins or some large teeth
- Flowers: acute purple fuzzy heads at ends of branches, ray flowers absent, disk corollas whitish, pappus persistent of numerous bristles
- Aug.-Nov.

Obl

Asteraceae (sunflower)

***Pluchea odorata (P. purpurascens)***

saltmarsh camphor-weed, purple pluchea, fleabane

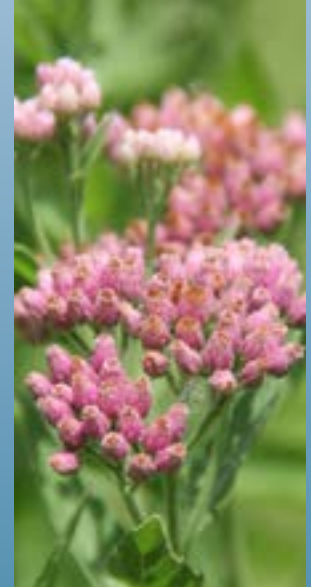


Obl

Asteraceae (sunflower)

***Pluchea odorata (P. purpurascens)***

saltmarsh camphor-weed, purple pluchea, fleabane



**Characteristics:**

- Forb: common leafy annual, to 1.5 m tall, glabrous below and hairy above
- Leaves: simple, alternate, oblong elliptical 6-15 cm long, variously dentate, sessile, camphor-smelling resin glands, lower surface puberulent
- Flowers: aggregation of heads in paniced cymose clusters (dark spikes), center maturing first and taller, phyllaries resinous, rose-purple
- Summer-Fall



Obl

Asteraceae (sunflower)

*Symphyotrichum divaricatum* (*Aster subulatus*)  
annual saltmarsh aster



**Characteristics:**

- Forb: annual, glabrous, much branched
- Culms: 50-130 cm tall
- Leaves: linear 1-10 cm long, shorter up the stem
- Flowers: 10-15 mm wide, usually white to pale blue, purple/violet/pink as well, pointed,
- Similar plants: *A. praealtus*, Willow Aster, FACW, leaves are linear-elliptic, 4-12 cm long & larger lavender flowers
- Aug.-Nov.

Obl

Asteraceae (sunflower)

*Symphyotrichum divaricatum* (*Aster subulatus*)  
annual saltmarsh aster



Obl

Alismataceae (arrowhead)

***Echinodorus berteroi* (*E. rostratus*)**  
upright burhead



Obl

Alismataceae (arrowhead)

***Echinodorus berteroi* (*E. rostratus*)**  
upright burhead



**Characteristics:**

- Forb: annual, coarse rigid aquatic emergent to 60 cm exceeding the leaves
- Leaves: broadly ovate to broadly rounded cordate, to 15 cm long, flattened triangle in cross section
- Flower: umbels numerous, branched panicles, white 3-merous corolla (1 cm diameter)
- Fruits: look like burrs, 2-glanded beaked seeds
- Similar plants: *E. cordifolius* is a creeping burhead, *E. parviflorus* is small and delicate (<10 cm)
- May-Oct.



Obl

Alismataceae (arrowhead)

***Sagittaria lancifolia***

bulltongue arrowhead

Texas Native

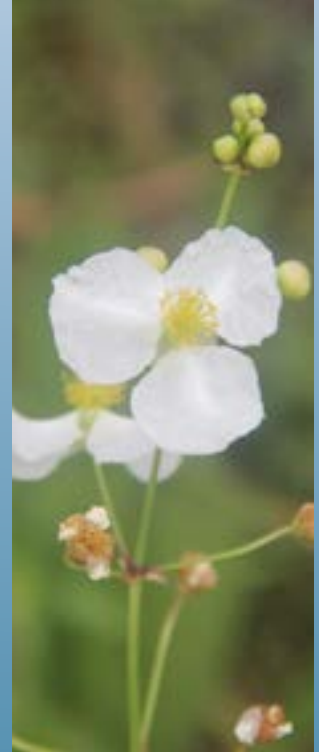


Obl

Alismataceae (arrowhead)

***Sagittaria lancifolia***

bulltongue arrowhead



**Characteristics:**

- Forb: aquatic perennial with milky juice
- Leaves: erect, ovate to elliptic to narrowly lanceolate, to 40 cm long
- Flowers: scapes branching at lower nodes, as many as 10 whorls, lower 1-4 whorls pistillate, bracts ovate and papillose, fruiting heads to 15 mm in diameter
- May.-Nov.



Obl

Alismataceae (arrowhead)

## *Sagittaria latifolia*

broad-leaf arrowhead, duck potato



Obl

Alismataceae (arrowhead)

## *Sagittaria latifolia*

broad-leaf arrowhead, duck potato



### Characteristics:

- Forb: aquatic perennial, stoloniferous, milky juice, submersed or emersed
- Leaves: all basal, erect, blades triangular ovate, acute at apex, sagittate (arrowhead shaped), to 25-50 cm long and wide, basal lobes half of body in length, leaves of submersed form no sagittate
- Flowers: scapes angled with as many as 10 whorls of 3 flowers, 3 sepals and white petals, pistillate below and staminate above, bracts ovate and densely papillose
- May.-Aug.

Obl

Alismataceae (arrowhead)

***Sagittaria platyphylla***  
delta arrowhead



Obl

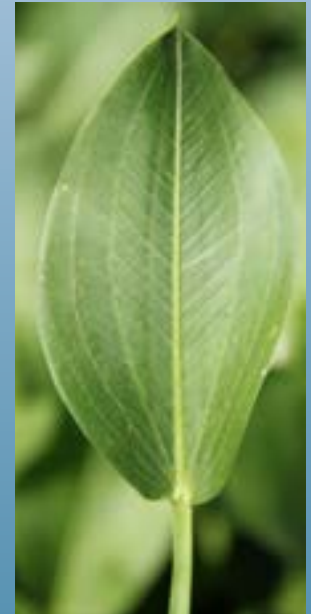
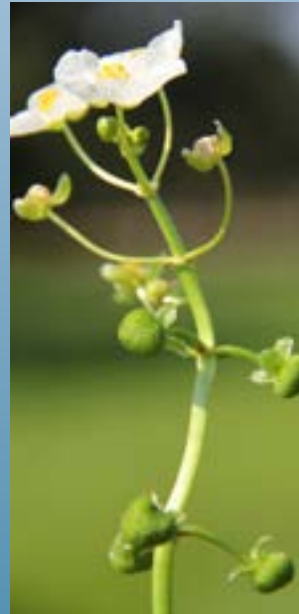
Alismataceae (arrowhead)

***Sagittaria platyphylla***  
delta arrowhead



**Characteristics:**

- **Forb:** aquatic perennial, stoloniferous and bulbous, starchy “duck potato”, milky juice, submersed or emersed
- **Leaves:** all basal, erect, blades ovate to elliptic or lanceolate, unlobed, tapering at both ends, firm, to 18 cm long and 8 cm wide, horizontal vein-looking markings on leaf (“tiger stripes”)
- **Flowers:** scapes with as many as 8 whorls of 3 flowers, 3 sepals and white petals, pistillate below and staminate above, pedicels to 25 mm, bracts ovate
- **Similar plants:** *S. graminea*, grass-leaf arrowhead, Obl, has narrow grasslike leaves coming from the base
- Apr.-Oct.





Obl

Hydrocharitaceae (tape grass)

### *Najas guadalupensis*

southern najad, common water-nymph



Obl

Hydrocharitaceae (tape grass)

### *Najas guadalupensis*

southern najad, common water-nymph



#### Characteristics:

- Forb: slender, submerged, stems to 60 cm long
- Leaves: crowded, subopposite, linear (threadlike), tapered, to 25 mm long, tipped with minute spines, marginal teeth inconspicuous
- Flowers: axillary
- Seeds: distinct in axils, spindle-shaped, crowned with 2-3 stigmas
- Jun.-Sept.



Obl

Hydrocharitaceae (tape grass)

***Vallisneria americana***

eel-grass, water-celery, tape-grass

Texas Native

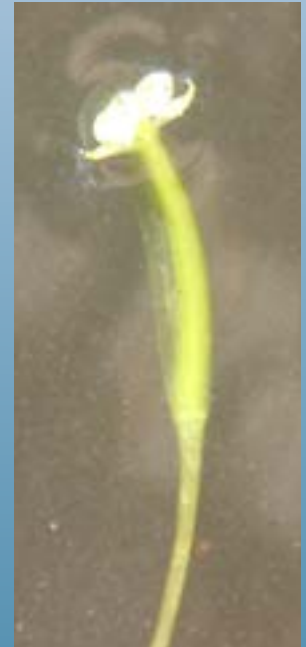


Obl

Hydrocharitaceae (tape grass)

***Vallisneria americana***

eel-grass, water-celery, tape-grass



**Characteristics:**

- **Forb:** rare submerged stoloniferous aquatic
- **Leaves:** ribbon-like, clustered at base, long (to 100 cm), to 8-20 mm wide
- **Flowers:** hydrophily on water surface, males numerous and floating away from spathe with 3- transparent sepals and 1 petal; female flowers solitary in peduncled spathe at water surface with 3 pinkish sepals, 3 ephemeral petals, coiling under water after pollination
- **Fruits:** cylindric 8-18 cm long
- Apr.-July

Obl

*Potamogetonaceae* (pondweed)

## *Potamogeton nodosus*

long-leaf pondweed

Texas Native



Obl

*Potamogetonaceae* (pondweed)

## *Potamogeton nodosus*

long-leaf pondweed



### Characteristics:

- **Forb:** common aquatic rhizomatous herb, rhizome white and spotted red
- **Leaves:** both submerged and floating, alternate, linear or elliptic-lanceolate, to 20 cm, petiole 2-13 cm long, acute but not sharp apex, floating leaves leathery, long petioles, broadly elliptic
- **Flowers:** peduncles thicker than stem, 10-17 whorls of flowers, orbicular
- Apr.-June



***Sabal minor***  
dwarf palmetto



***Sabal minor***  
dwarf palmetto



**Characteristics:**

- Tree: 1 m to 6 m tall, stemless or short unbranched trunk
- Leaves: rosette from a single apical bud, long and smooth-petioled, stiff evergreen, glabrous, bluish-green, palmate (fan-like) blades to 150 cm wide, longitudinally pleated toward base, divided over half way into narrowly lanceolate segments
- Flowers: inflorescence a long panicle, its stalk with leafy bracts consisting of closed, tubular basal sheath and grass-like short blade, flowers many, subsessile, very small, with 3-lobed calyx, 3 greenish brown petals, 6 stamens, 1 pistil, ovary superior
- Fruits: globular, black, 6-13 mm in diameter
- June



***Arisaema dracontium***  
green dragon



Texas Native

***Arisaema dracontium***  
green dragon



**Characteristics:**

- Forb: perennial
- Leaf: usually solitary compound, 25 cm wide on a long, erect 25-50 cm petiole, emerging from the ground, palmate with central leaflet and 2-7 side leaflets on sub-petiole
- Flower: stalk 4-10' topped by a light green spathe and 6" yellow tapering spadix
- Late June-July

Obl

Araceae (Jack in the pulpit)

***Colocasia esculenta (Alocasia macrorrhiza)***  
elephant's ear, taro



Obl

Araceae (Jack in the pulpit)

***Colocasia esculenta (Alocasia macrorrhiza)***  
elephant's ear, taro



**Characteristics:**

- **Forb:** large introduced aquatic emergent perennial, large tuber-like corm (Hawaiian Poi)
- **Leaves:** basal, large peltate (attaches towards center), irregularly ovate (look like elephant's ear), notched at base, upper surface has sheen
- **Flower:** spathe rolled between blade and tube, yellow, spadix terminated by an appendage
- Spring-Fall





Obl

Lemnaceae (duck-weed)

***Lemna minor***  
lesser duck-weed



Obl

Lemnaceae (duck-weed)

***Lemna minor***  
lesser duck-weed



**Characteristics:**

- Forb: small free floating aquatic, thallus solitary or in groups, a single root, reproduces by flower or vegetative buds
- Leaves: a single thallus, elliptic-ovovate, 2-4 mm long, 1.5-3 mm wide, dark to yellowish green surface with red or purple, low median ridge
- Flower: 2 staminate or 1 pistillate flowers per vegetative spathe
- Similar plants: *Landoltia punctata*
- Summer



Obl

Lemnaceae (duck-weed)

***Wolffia columbiana***

common wolffia, water-meal

Texas Native



Obl

Lemnaceae (duck-weed)

***Wolffia columbiana***

common wolffia, water-meal



**Characteristics:**

- Forb: smallest free floating aquatic, thallus solitary or paired, no roots, reproduces by flowers or budding
- Leaves: a single thallus, 0.1-1.4 mm long, upper surface may be roughened by papillae, thallus globular or pointed in *W. brasiliensis*
- Flowers: inflorescence 1 pistillate and 1 staminate flower
- Similar plants: *Lemna minor*
- Summer

Obl

Juncaceae (rush)

## *Juncus effusus*

soft rush

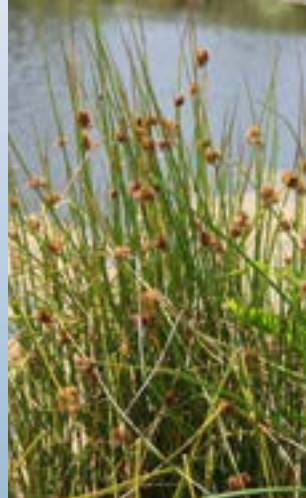


Obl

Juncaceae (rush)

## *Juncus effusus*

soft rush



### Characteristics:

- Rush: perennial, rhizomes short and thick
- Culms: round 60-120 cm and hollow, crowded into rounded clump, round, not ribbed
- Leaves: chestnut-brown rounded basal sheaths, bladeless
- Flower: panicles appear from side of culm (only rush to do this), overtopped by round bract
- Spring

***Juncus marginatus***  
grass-leaf rush, inland rush



**Characteristics:**

- Rush: perennial, short-rhizomatous, 15-30 cm tall, swollen stem base
- Leaves: flattened (grass-like), numerous, soft, mostly erect, sheath shorter than internode
- Flower: inflorescence compact, panicles terminal, much branched, many small glomerules of 2-12 flowers each, subtended by only 1 bracteole 6 points surround each seed capsule
- Spring-Summer

***Juncus marginatus***  
grass-leaf rush, inland rush





Obl

Juncaceae (rush)

## *Juncus texanus*

Texas rush

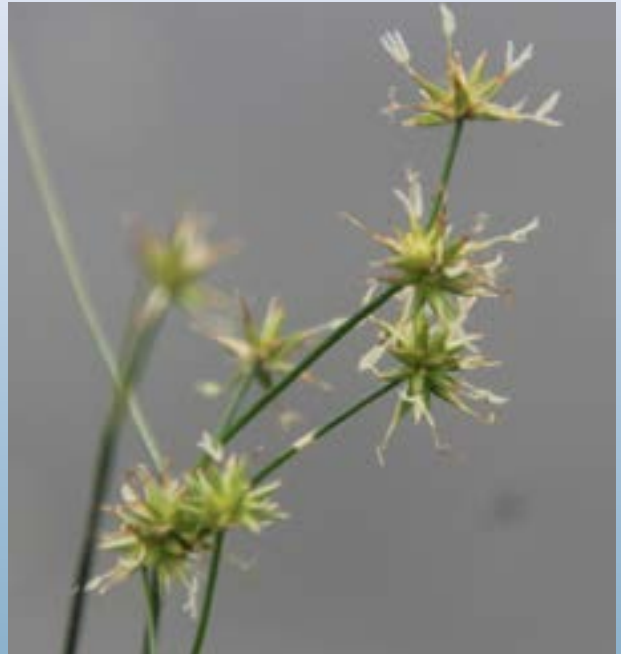


Obl

Juncaceae (rush)

## *Juncus texanus*

Texas rush



### Characteristics:

- Rush: slender perennial, rhizomes slender with tubers
- Culms: round (terete) 20-60 cm
- Leaves: few, terete, weak septa, near middle
- Flower: terminal, bract shorter than or only slightly surpassing inflorescence, heads round, remote on short branches, capsules with elongated pointed beaks
- June-July

Small, round tuber at the end of rhizome

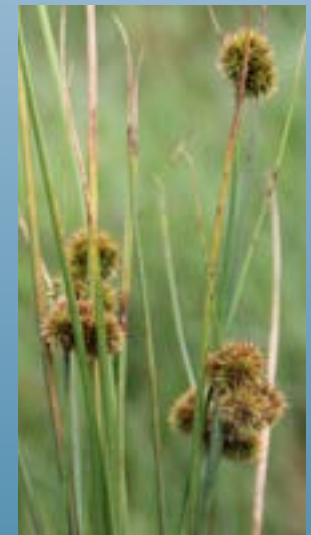
***Juncus torreyi***

Torrey's rush

Texas Native

***Juncus torreyi***

Torrey's rush

**Characteristics:**

- Rush: perennial, rhizomes slender with tubers
- Culms: round (terete) 30-100 cm
- Leaves: terete (rolled round), strong septa near middle (feel ribs between fingers), 20-24 cm long, 4 mm wide
- Flowers: terminal, terete bract longer than inflorescence, crowded round heads 8-10 mm brownish
- Similar plants: *J. brachycarpus* (smaller)
- June/July-(Oct.)

***Carex brittoniana***

Britton's sedge



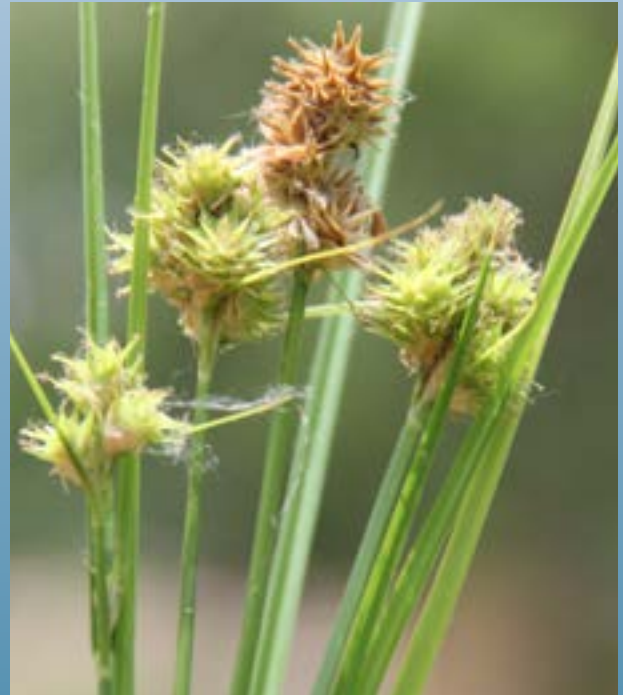
Texas Native

**Characteristics:**

- **Sedge:** tufted perennial, rhizomes black
- **Culms:** 35-75 cm long, sharply triangular
- **Leaves:** blades 2.5-5 mm broad, flat shorter than the culm
- **Flower:** inflorescence 2.5-5 cm long, 1-2.5 cm broad, 2-5 clumped ovoid burlike spikes, bracts essentially absent
- **Similar plants:** *C. reniformis*, *Fuirena simplex*
- Mar.-May

***Carex brittoniana***

Britton's sedge

*Carex reniformis**Carex brittoniana*



FacW-

Cyperaceae (sedge)

## *Carex cherokeensis*

Cherokee sedge



FacW-

Cyperaceae (sedge)

## *Carex cherokeensis*

Cherokee sedge



### Characteristics:

- Sedge: rare tufted perennial, rounded crown, rooted usually in sandy soil
- Stem: typical, triangular
- Leaves: long and narrow, typical sedge "V" in cross section
- Flower: with typical caric spikelet, (male spike arranged over female spike)
- Apr.-Early June

Obl

Cyperaceae (sedge)

***Carex emoryi***

Emory's sedge

Texas Native



Obl

Cyperaceae (sedge)

***Carex emoryi***

Emory's sedge



**Characteristics:**

- Sedge: very common Caric sedge along Austin stream edges, tufted perennial, rhizomatous
- Culms: 40-100 cm
- Leaves: numerous
- Flower: lower pistillate spikes in clusters of 4-7, often overlapping, staminate spikes above
- Apr.-May



Obl

Cyperaceae (sedge)

***Carex frankii***

Frank's sedge



Obl

Cyperaceae (sedge)

***Carex frankii***

Frank's sedge



**Characteristics:**

- Sedge: perennial, rhizomatous
- Culms: 20-70 cm tall, basal sheaths brownish
- Leaves: 4-11 mm broad
- Flower: inflorescence 4-6 ascending spikes, terminal spike male and inconspicuous, tan-brown, lowest female spikes on long peduncles (to 15 cm)
- Apr.-June



***Carex microdonta***

little-tooth sedge

Texas Native

**Characteristics:**

- **Sedge:** very common Caric sedge in wet meadows, small tufted perennial, rhizotomous
- **Culms:** 9-50 cm
- **Leaves:** shorter than culm, 2-7 mm broad, leaves curl back
- **Flower:** spikes 3-5, staminate terminal (usually 1 male and 1 female)
- **Similar plants:** *C. meadii*
- Mar.-May

***Carex microdonta***

little-tooth sedge



Obl

Cyperaceae (sedge)

## *Cladium jamaicense*

Jamaica sawgrass



Obl

Cyperaceae (sedge)

## *Cladium jamaicense*

Jamaica sawgrass



### Characteristics:

- Sedge: coarse reed 1-3 m tall
- Stems: triangular
- Leaves: tough with saw-toothed margins, channeled ventrally, long (0.3-1 m)
- Flower: inflorescence 20-80 cm long, 2-6 spikelets terminate many short branches
- Summer

***Cyperus acuminatus***

pointed/short-point/taper-leaf flatsedge

***Cyperus acuminatus***

pointed/short-point/taper-leaf flatsedge

**Characteristics:**

- Sedge: tufted perennial
- Culms: slender 10-80 cm tall & triangular
- Leaves: few, most shorter than culms,
- Flower: inflorescence on 2-5 unequal peduncles, spherical tight cluster of 13-25 flattened spikelets, spikelet green with some brown at base, translucent scales, one bract leaf sticking straight up
- Similar plants: *C. articulatus* has no bract leaves
- May-Oct.

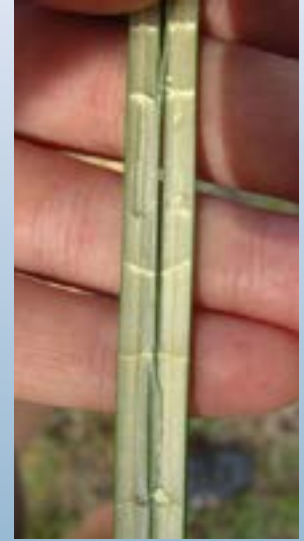


***Cyperus articulatus***  
jointed flatsedge

Texas Native



***Cyperus articulatus***  
jointed flatsedge



**Characteristics:**

- Sedge: perennial forming colonies from rhizomes, 50-140 cm tall
- Culms: terete, 2-8 mm thick, septa every 5-50 mm
- Leaves: few, reduced sheaths at base, bracts few, short
- Flower: 4-12 glomerules on slender peduncles up to 12 cm long, up to 20 long spikelets on each
- Similar plants: appears similar to various species in *Schoenoplectus* genus
- May-Oct.

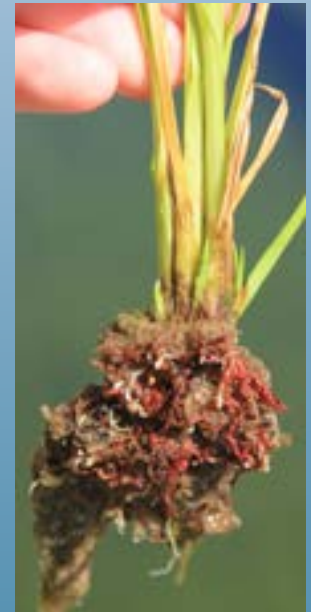
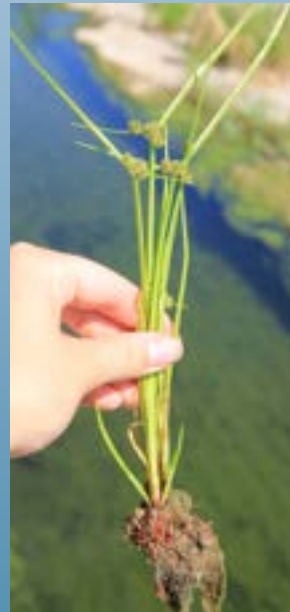
***Cyperus difformis***  
variable flatsedge



**Characteristics:**

- **Sedge:** annual growing in clumps with fibrous roots
- **Culms:** 15-50 cm, sharply triangular
- **Leaves:** 2-3 unequal leaves wrapped around base, 2-4 bract leaves with one nearly erect
- **Flower:** dense, round seed heads sessile or on rays to 7 cm, 50-100 < yellow to purple spikelets per inflorescence
- **Similar plants:** *C. virens* has more lax bracts, less crowded inflorescences

***Cyperus difformis***  
variable flatsedge



***Cyperus elegans***  
sticky flatsedge

Texas Native



***Cyperus elegans***  
sticky flatsedge



**Characteristics:**

- Sedge: rare (S.E. Texas only) tufted perennial, grayish green
- Culms: 30-70 cm tall & triangular
- Leaves: sticky, crowded at base
- Flower: inflorescence on 3-10 very unequal peduncles, spherical clusters of 5-13 spiklets, multiple clusters on longest peduncles, sticky
- Similar plants: *C. pseudovegetus*, smaller bract leaves
- June



***Cyperus esculentus***

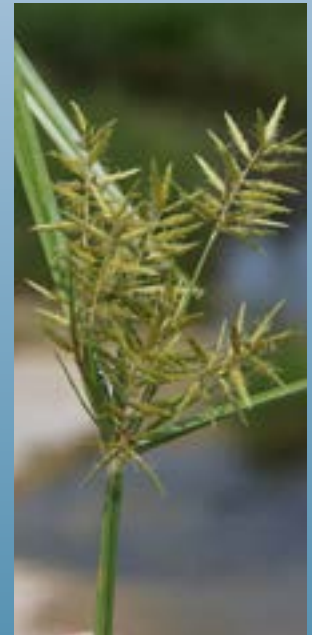
yellow nut grass, chufa



Texas Native

***Cyperus esculentus***

yellow nut grass, chufa

**Characteristics:**

- **Sedge:** perennial, white rhizomes tuber-like
- **Culms:** 15-50 cm long
- **Leaves:** several at basal half of culm, upper ones ascend past inflorescence
- **Flower:** inflorescence 4-14 cm long past culm, 5-10 unequal peduncles, short spike or spikes at ends made up of 12-50 spikelets, yellow/brown flattened spikelets, scales protrude & spikelet looks jagged
- Summer-Fall

*Cyperus ochraceus*

pond flatsedge

Texas Native

*Cyperus ochraceus*

pond flatsedge

**Characteristics:**

- Sedge: common tufted perennial
- Culms: 11-80 cm long, apically bluntly triangular
- Leaves: several basal, some as long as the culm
- Flower: inflorescences 25-28 cm long, 6-12 unequal peduncles bearing spherical lax heads of 4-24 spikelets, 5-8 bracts, most longer than inflorescence, olive yellow/brown
- Sept.-Nov., throughout the year



***Cyperus odoratus***  
rusty or fragrant flatsedge

Texas Native



***Cyperus odoratus***  
rusty or fragrant flatsedge



**Characteristics:**

- Sedge: common tufted perennial
- Culms: 5-60 cm tall and triangular
- Flower: brown, numerous unequal peduncles bearing several secondary peduncles, spikes with numerous spiklets, spikes rusty brown towards the middle & green at tips, each spikelet flat, bracts 3-10
- Similar plants: *C. ochraceus*
- Spring-Fall



*Cyperus tenuifolius*

low spikesedge



Texas Native

*Cyperus tenuifolius*

low spikesedge

**Characteristics:**

- Sedge: Densely tufted annual, grow in clumps of 4-20
- Culms: 1-21 cm, .5-.7 mm thick uniformly
- Leaves: flaccid blades often 2/3 as long as culm or greater, 3 or 4 spreading bract leaves 2-10 cm long
- Flower: single 3-lobed round inflorescence 3-8 mm long with 40 to 170 spikelets
- Sept.-Nov.

FacW

Cyperaceae (sedge)

*Dichromena colorata (Rhynchospora colorata)*  
starbrush white-top-sedge, umbrella sedge



FacW

Cyperaceae (sedge)

*Dichromena colorata (Rhynchospora colorata)*  
starbrush white-top-sedge, umbrella sedge



**Characteristics:**

- Sedge: perennial, orange rhizomes
- Culms: 12-56 cm tall
- Leaves: crowded basally, rolled inward at tip, 3-7 unequal bracts with conspicuous white markings at base
- Flower: spikelets green and ovoid
- Spring-Summer



***Eleocharis compressa***

flat-stem spikerush

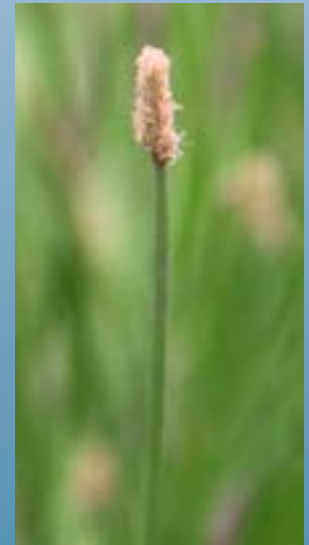
Texas Native

**Characteristics:**

- Sedge: tufted perennial, rhizomatous
- Culms: flattened, 9-20", sheaths reddish
- Flower: terminal spikelet ovoid, seeds golden-brown
- Similar plants: *E. geniculata*
- Spring

***Eleocharis compressa***

flat-stem spikerush





***Eleocharis geniculata* (*E. caribea*)**  
capitate spikerush



***Eleocharis geniculata* (*E. caribea*)**  
capitate spikerush



**Characteristics:**

- Sedge: common tufted annual, purple or green base
- Stems: thick, usually 4-12" tall (range 4-30cm)
- Flower: terminal spikelet ovoid
- Seeds: dark purple
- Similar plants: *E. erythropoda*, OBL, is also 4-12" tall but has a red base
- Summer-Fall

FacW+

Cyperaceae (sedge)

## *Eleocharis montevidensis*

sand spikerush

Texas Native

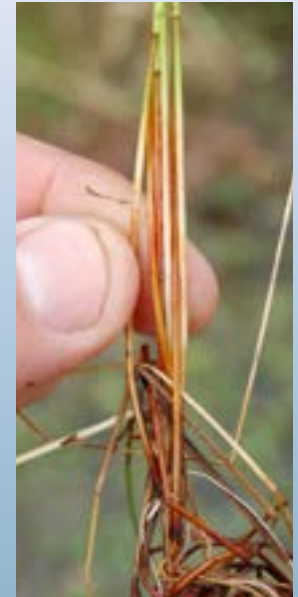


FacW+

Cyperaceae (sedge)

## *Eleocharis montevidensis*

sand spikerush



### Characteristics:

- Sedge: tall (18-24"+), common perennial, rhizomatous & dark reddish
- Culms: tall but weak (10-50 cm), soft, fine, erect, sheaths basally dark reddish
- Stem: round
- Flower: blunt spikelets variable in shape, scales dark brownish-purple
- Spring-Summer



*Obl*

*Cyperaceae (sedge)*

***Eleocharis quadrangulata***

square-stem spikerush

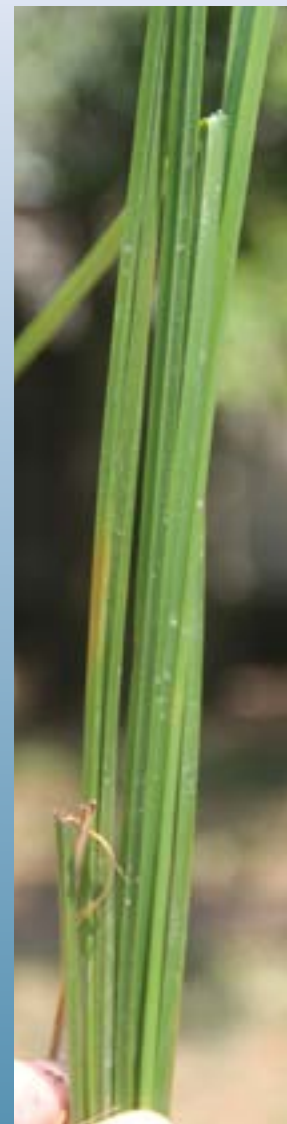


*Obl*

*Cyperaceae (sedge)*

***Eleocharis quadrangulata***

square-stem spikerush



**Characteristics:**

- Sedge: coarse perennial
- Culm: only sedge with a square culm (50-80 cm tall), brownish sheaths
- Flower: spikelets cylindrical
- Seeds: yellow-brown
- Spring-Fall



***Fimbristylis annua***  
annual fimbry



***Fimbristylis annua***  
annual fimbry



**Characteristics:**

- Sedge: tufted annual to 50 cm tall
- Culm: flattened just below inflorescence
- Leaves: thin and long, backs with raised nerves, margins ciliate-scabrid, ligule line of short hairs, longest bract similar to leaves
- Flowers: spikelets oblong, acute, umbellate system of cymes
- Similar plants: *F. autumnalis*, Slender Fimbry, OBL, has more lanceolate spikelets and threadlike bracts
- Oct.

Obl

Cyperaceae (sedge)

## *Fuirena simplex*

western umbrella-sedge, prickly sedge



Obl

Cyperaceae (sedge)

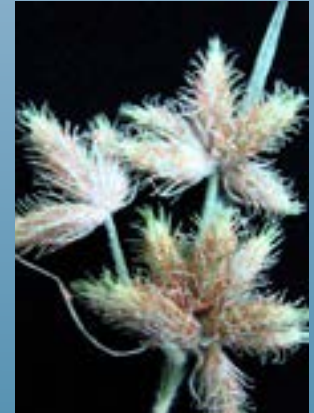
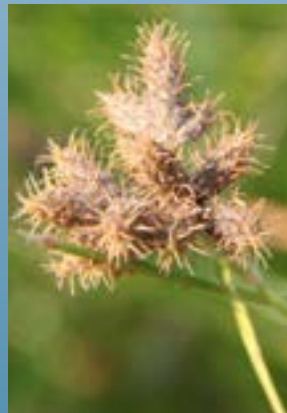
## *Fuirena simplex*

western umbrella-sedge, prickly sedge



### Characteristics:

- Sedge: common rhizomatous perennial
- Culms: 0.1 -1 m tall
- Leaves: reduced to a smooth sheath below, upper more like bracts
- Flowers: condensed glomerule-like inflorescence of 1-10 spikelets that look like tiny cockleburs, oblong-cylindric with white stiff hairs
- Similar plants: *F. squarosa* OBL, has a hairy sheath, *Carex brittoniana*
- Later Summer-Fall



Obl

Cyperaceae (sedge)

*Schoenoplectus californicus* (*Scirpus californicus*)  
California bulrush



Obl

Cyperaceae (sedge)

*Scirpus californicus* (*Schoenoplectus californicus*)  
California bulrush

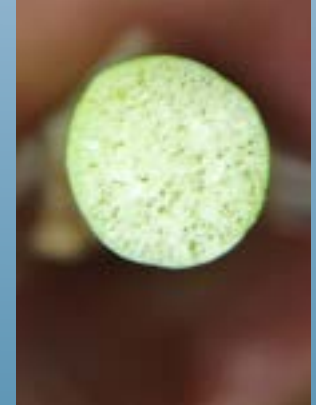


**Characteristics:**

- Sedge: tufted perennial from rhizomatous knots
- Culms: tapering rounded/obscurely triangular, 1-3 m tall
- Stem: hollow but firm
- Leaves: few basal brownish fringed sheaths fibrous at the edges
- Flowers: lateral inflorescence (4-12 cm), short bit of stem above inflorescence, 50-150 spikelets
- Similar plants: *S. taebarnaemontani* has perfectly round culms
- Spring-summer



*S. californicus*



*S. taebarnaemontani*



Obl

Cyperaceae (sedge)

***Schoenoplectus pungens (Scirpus americanus)***  
three-square, chairmaker's rush

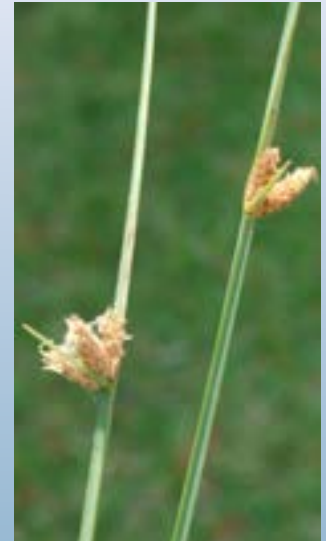
Texas Native



Obl

Cyperaceae (sedge)

***Schoenoplectus pungens (Scirpus americanus)***  
three-square, chairmaker's rush



**Characteristics:**

- **Sedge:** rhizomatous perennial
- **Culms:** sharply triangular, 30-120 cm tall, colonial
- **Leaves:** 2-4 blades rolled inward near base of culm
- **Flowers:** lateral inflorescence (3-10 cm), solitary or glomerule fo 2-4 ovoid spikelets 7-17 mm long, pointed leaf-like bract above inflorescence 3-5 cm long
- Spring-Summer

*Obl*

*Cyperaceae (sedge)*

*Schoenoplectus tabernaemontani (Scirpus validus)*  
soft-stem bulrush



**Characteristics:**

- Sedge: rhizomatous perennial, colonial
- Culms: tapering, blunted, triangular, soft, 1-3 m tall
- Leaves: 1-2 sheath-like near base
- Flowers: lateral inflorescence (3-10 cm), 20-120 drooping spikelets 6-10 mm long, pointed leaf-bract above shorter lateral inflorescence
- Similar plants: *S. georgianus* (shorter (1.3 m), leaves slender and dark green with brownish-black spikelets)
- Similar plants: *S. californicus* has more triangular culms
- Spring-Fall

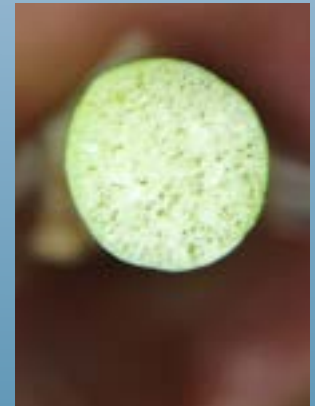
*Obl*

*Cyperaceae (sedge)*

*Schoenoplectus tabernaemontani (Scirpus validus)*  
soft-stem bulrush



*S. californicus*



*S. tabernaemontani*



FacW+

Poaceae (grass)

***Andropogon glomeratus***  
bushy bluestem

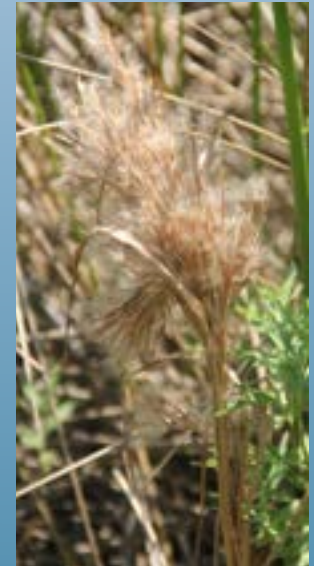
Texas Native



FacW+

Poaceae (grass)

***Andropogon glomeratus***  
bushy bluestem



**Characteristics:**

- Grass: perennial
- Culms: to 1.5 m tall
- Leaves: with broad keeled overlapping sheaths
- Flowers: Inflorescence much branched, crowded (> 2 cm wide), broom-like with burnt orange branches
- Sept. - Nov.



***Chasmanthium latifolium***

inland sea oats or broad leaf wood oats

***Chasmanthium latifolium***

inland sea oats or broad leaf wood oats

**Characteristics:**

- Grass: rhizomatous perennial
- Culms: 0.5-1.3 m rise from mats, purplish & bent at base, above erect, leafy most of height
- Leaves: smooth and wide, sheaths much shorter than internodes & tightly clasping, blades lanceolate 10-20 cm long, 8-16 mm broad, veins markedly parallel
- Flower: panicles very lax, 15-30 cm long, spikelets very drooping at ends of naked branches, spikelet conspicuously flat and wide (oat-looking), 12-18 flowered
- Summer-Fall



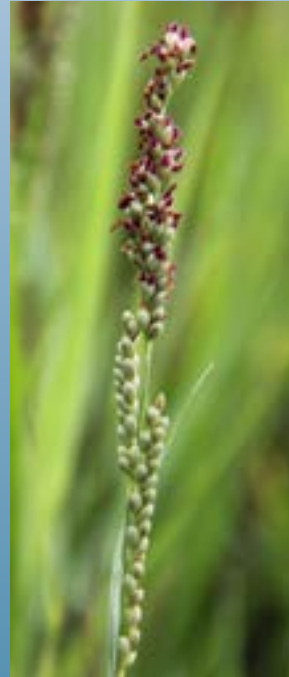
***Echinochloa colona***  
jungle rice



**Characteristics:**

- Grass: annual, rooting at nodes, ascending or appressed, often diverging from axis at various angles
- Leaves: ligule obsolete, totally smooth, wraps around stem
- Flower: short smooth spikelets 2.5-3 mm long, not awned, (somewhat like a Paspalum spikelet with flowers/seeds crowded on both sides)
- Jul.-Nov.

***Echinochloa colona***  
jungle rice



***Echinochloa crusgalli***

barnyard grass

***Echinochloa crusgalli***

barnyard grass

**Characteristics:**

- Grass: introduced annual
- Culms: thick and branched at base
- Leaves: ligule obsolete, margins rough, sheaths smooth
- Flower: yellowish, spikelets 2.8-4 mm long, has threads out of spikelet stalks and stiff hairs or white cilia between flowers or seeds
- Similar plants: longer than *E. colonus*
- Summer-Fall



Fac+

Poaceae (grass)

## *Elymus canadensis*

Canada wild rye

Texas Native

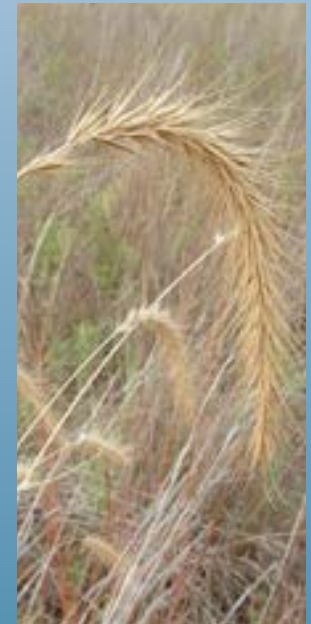


Fac+

Poaceae (grass)

## *Elymus canadensis*

Canada wild rye



### Characteristics:

- Grass: perennial
- Culms: basally decumbent, most ascending, 0.8-1.5 m tall
- Leaves: with minute pointed auricle at juncture of leaf and sheath
- Flower: peduncles 7-30 cm long, terminal spikes 3-12 cm long, usually paired spikelets, stiff bristles (awn bending when mature), rye-looking
- Spring

***Muhlenbergia linderheimeri***

Lindheimers muhly

Texas Native

***Muhlenbergia linderheimeri***

Lindheimers muhly

**Characteristics:**

- Grass: large tufted perennial
- Culms: stiffly erect, 80-150 cm tall
- Leaves: ligule a membrane
- Flowers: somewhat contracted paniced inflorescence, densely flowered, panicle branches with flowers nearly to base, spikelet one-flowered, usually awnless
- Sept.-Dec.



*Muhlenbergia reverchonii*  
seep muhly



**Characteristics:**

- Grass: densely tufted perennial
- Culms: stiffly erect 40-80 cm tall, wirey and much branched
- Leaves: membranous ligules 2-4 mm long
- Flowers: open wispy panicle
- Similar plants: *M. lindheimeri* (larger)
- Moist to wet areas
- Aug.-Nov.

*Muhlenbergia reverchonii*  
seep muhly





## Panicum virgatum

switchgrass

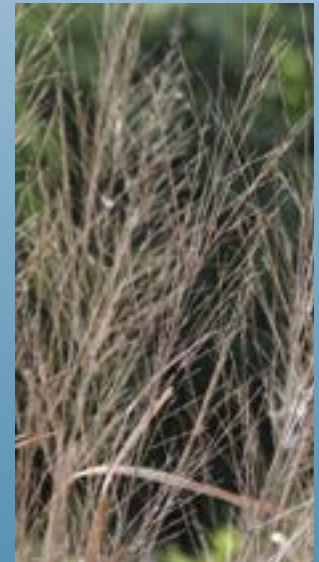


### Characteristics:

- Grass: common large perennial, strong rhizomes
- Culms: stout in large bunches 0.5-3 m tall
- Leaves: sheaths glabrous, ligule a fringed ciliate membrane, blades 10-60 cm, flat, narrow, usually glabrous except base,
- Flowers: large panicle 15-50 cm tall, open and diffuse, one-flowered spikelet pointed
- Late Summer-Fall

## Panicum virgatum

switchgrass



***Paspalum distichum***  
joint paspalum, knotgrass



***Paspalum distichum***  
joint paspalum, knotgrass



**Characteristics:**

- Grass: decumbent creeping perennial
- Culms: 0.5-1.5 m long, rooting freely, ascending at ends
- Leaves: ligule a scale, blades 3-12 cm long, 2-6 mm wide, flat, marginally wavy, leaf sheath, ligule, and node often pubescent
- Flowers: racemes usually 2 on a common axis, 2 rows of spikelets on abaxial side of rachis, not fuzzy
- Summer-Fall

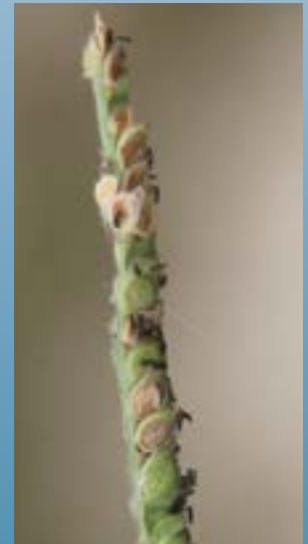
***Paspalum pubiflorum***  
hairy-seed paspalum



**Characteristics:**

- Grass: loosely tufted perennial
- Culms: 40-80 cm, 1/3-1/2 culm decumbent and freely rooting then erect
- Leaves: ligule a scale, blades 6-30 cm long, 5-13mm wide, flat, wavy margins, lower sheaths hairy, bright green and smooth
- Flowers: inflorescence usually 3 spikes together, 2 rows of spikelets on abaxial side of rachis, spikelets somewhat hairy or fuzzy, rachis triangular, long spikelets to 3mm
- Similar plants: *P. urvillei*, Vasey Grass, FAC, has > 9 spikes together, but also with fuzzier spikelets; *P. dilatatum*, Dallis Grass, FAC, has 5-8 spikes together, also fuzzier
- Spring-Fall

***Paspalum pubiflorum***  
hairy-seed paspalum





***Phalaris caroliniana***

Carolina canary grass

**Characteristics:**

- Grass: common tufted annual
- Culms: 25-100 cm, sparingly branched basally
- Leaves: ligule a transparent scale, blades 5-20 cm, broad (2-13 mm), soft, flat
- Flowers: dense short panicle 1.5-3 cm long, cylindrical to narrowly elliptical, somewhat spiny or spikey looking
- April-June

***Phalaris caroliniana***

Carolina canary grass



***Polypogon interruptus***  
ditch rabbit-foot grass

Texas Native



**Characteristics:**

- Grass: rare perennial
- Culms: rooting at lower nodes, 20-100 cm tall, ligule a scale 4-10 mm long
- Leaves: 4-22 cm long
- Flowers: panicle 3-20 cm long, broad and spike-like (interrupted spike), whorled flower branches 1-5 cm long, awns 5mm long
- Similar plants: *Phalaris caroliniana*, *Alopecurus carolinianus*

***Polypogon interruptus***  
ditch rabbit-foot grass



Fac+

Poaceae (grass)

## *Tripsacum dactyloides*

eastern gama grass



Fac+

Poaceae (grass)

## *Tripsacum dactyloides*

eastern gama grass



### Characteristics:

- Grass: robust rhizomatous perennial, 1.5-3 m tall, glabrous throughout
- Leaves: blades elongate to 2 cm broad, flat, blades pilose above, sheaths glabrous, ligule a ring of hairs, mature purple margins, (base of leaf flattened)
- Flowers: inflorescence 15-25 cm long, terminal, spike-like racemes, lower ones fertile females (on opposite sides of a thick, hard, rounded rachis), many paired staminate spikelets above (corn-like look)
- Seeds: large kernel/bead-like
- Similar plants: *Sorghum halpence*
- Apr.-June (-fall)





Obl

Typhaceae (cattail)

## *Typha domingensis*

southern cattail



### Characteristics:

- Forb: aquatic perennial, rhizomatous
- Stems: simple, slender, jointless up to 3 m tall, white pith
- Leaves: long erect, linear, flat, yellowish-green, 7-15 mm wide, shorter than inflorescence, sheaths present
- Flowers: staminate portion at tip (20-40 cm) is separated from whitish-brown pistillate portion, spike < 1.3 cm wide
- Similar plants: *T. latifolia* (thicker), *T. angustifolia* (never over 1.5 m tall)
- Apr.-May

Obl

Typhaceae (cattail)

## *Typha domingensis*

southern cattail



Obl

Typhaceae (cattail)

***Typha latifolia***  
broad-leaf cattail

Texas Native



Obl

Typhaceae (cattail)

***Typha latifolia***  
broad-leaf cattail



**Characteristics:**

- **Forb:** aquatic perennial, rhizomatous
- **Stem:** simple, jointless up to 3 m tall, white pith
- **Leaves:** long erect, linear, flat, yellowish-green, 6-23 mm wide, longer than inflorescence, sheaths present
- **Flowers:** staminate portion 12 cm not separated from whitish-brown pistillate portion, spike > 2 cm wide, most common cattail
- Mar.-May

Obl

Cannaceae (*canna*)

### *Canna flaccida*

canna lily or bandana of the Everglades



Obl

Cannaceae (*canna*)

### *Canna flaccida*

canna lily or bandana of the Everglades



#### Characteristics:

- Forb: perennial to 75 cm tall, green throughout
- Leaves: alternate with sheathing petioles, oblong-elliptic 20-40 cm long & to 20 cm wide
- Flower: small paired in terminal panicles, 3 greenish bractlike sepals, 3 reddish petals united to form a 3-3.5 cm tubed corolla, longer 5 cm stamenoidia, capsules 2.5-3.5 cm long
- Apr.-June



***Thalia dealbata***

powdery thalia

***Thalia dealbata***

powdery thalia

**Characteristics:**

- **Forb:** erect scapous herb, rhizomatous
- **Leaves:** large (Banana or Canna-like), alternate, 3 large basal, long petioled, pronounced numerous veins, ovate lanceolate 20-40 cm long, sheathing, scapes 10-20 cm tall, white powder on back of leaf
- **Flowers:** inflorescence white powdery, flowers purplish, orange, or pink striped in paniced spikes surrounded by several bracts, 3-petaled, irregular corolla with lip
- **Fruit:** a capsule, berry-like
- **Oct.-Nov.**

Obl

Pontederiaceae (Pickerelweed)

## *Eichhornia crassipes*

water hyacinth



Texas Non-Native

### Characteristics:

- Forb: floating introduced aquatic, abundant fibrous roots
- Leaves: ovate to rhombic to reniform (to 150 cm wide), leathery thick, spongy petioles
- Flower: inflorescence a terminal spike of showy, light blue/lavender, six petaled (4-6 cm wide), two-lipped, yellow spot on upper petal, peduncle from a spathe, many seeded capsule
- Apr.-July

Obl

Pontederiaceae (Pickerelweed)

## *Eichhornia crassipes*

water hyacinth





Obl

Pontederiaceae (pickerelweed)

## *Heteranthera (Zosterella) dubia*

water star grass

Texas Native



Obl

Pontederiaceae (pickerelweed)

## *Heteranthera (Zosterella) dubia*

water star grass



### Characteristics:

- Forb: aquatic submerged perennial, rooting at nodes in mud
- Leaves: linear ribbon or grass-like to 15 cm long, sessile, almost transparent, finely parallel-veined with distinct mid-vein, sheath with stipule-like appendages
- Flower: exposed on the surface, solitary from a spathe, pale yellow perianth radially symmetrical (star-like), from long tube
- Fruit: a many-seeded capsule
- Similar plants: *H. limosa* has long petiole & ovate leaf, and a blue flower
- Apr.-June



Obl

Pontederiaceae (pickerelweed)

## *Pontederia cordata*

pickerelweed



Obl

Pontederiaceae (pickerelweed)

## *Pontederia cordata*

pickerelweed



### Characteristics:

- Forb: rhizomatous perennial 40-80 cm tall, thick white stalk
- Leaves: basal, petioles longer than blades with long clasping basal portion, narrowly deltoid-ovate to triangular lanceolate, rounded truncate to deeply cordate base (basal leaf lobes usually more rounded than the white-flowered)
- Flowers: inflorescence a slender 15 cm terminal spike from a spathe, perianth two-lipped, violet-blue, upper lip with yellow spot or spots
- Fruit: edible 1-seeded
- Similar plants: *Sagittaria latifolia* (white-flowered), *P. cordata* has more rounded basal leaf lobes
- June-Sept.



***Hymenocallis liriosme***  
western spider lily



**Characteristics:**

- **Forb:** glabrous perennial from large bulb, 35-100 cm tall
- **Leaves:** basal, strap-like, bending, faint perpendicular veins
- **Flower:** inflorescence an umbel, snowy white tinged with yellow center, 6 slender petals, showy to 20 cm diameter, sweet scented, perianth with long slender tube (6-8 cm long) and conspicuous spreading linear segments (spider-looking), topped with a large cup-like crown (corona)
- **Fruit:** a few seeded capsule
- **Mar.-May**

***Hymenocallis liriosme***  
western spider lily



## Index of common names:

<b>A</b>	
American elder ( <i>Sambucus canadensis</i> )	p. 126
American germander ( <i>Teucrium canadense</i> )	p. 100
American lotus ( <i>Nelumbo lutea</i> )	p. 18
American sycamore ( <i>Platanus occidentalis</i> )	p. 34
annual fimbry ( <i>Fimbristylis annua</i> )	p. 218
annual saltmarsh aster ( <i>Symphotrichum divaricatum</i> )	p. 146
arrowhead, broad-leaf ( <i>Sagittaria latifolia</i> )	p. 152
arrowhead, builtongue ( <i>Sagittaria lancifolia</i> )	p. 150
arrowhead, delta ( <i>Sagittaria platyphylla</i> )	p. 154
ash, green ( <i>Fraxinus pennsylvanica</i> )	p. 106
<b>B</b>	
bald cypress ( <i>Taxodium distichum</i> )	p. 12
bandana of the Everglades ( <i>Canna flaccida</i> )	p. 258
barnyard grass ( <i>Echinochloa crusgalli</i> )	p. 234
beaver poison ( <i>Cicuta maculata</i> )	p. 90
black willow ( <i>Salix nigra</i> )	p. 54
box elder ( <i>Acer negundo</i> )	p. 88
Brittons' sedge ( <i>Carex brittoniana</i> )	p. 180
broad-leaf arrowhead ( <i>Sagittaria latifolia</i> )	p. 152
broad-leaf cattail ( <i>Typha latifolia</i> )	p. 256
broad leaf wood oats ( <i>Chasmanthium latifolium</i> )	p. 230
brookweed ( <i>Samolus parviflorus</i> )	p. 58
builtongue arrowhead ( <i>Sagittaria lancifolia</i> )	p. 150
bulrush, California ( <i>Schoenoplectus californicus</i> )	p. 222
bulrush, soft-stem ( <i>Schoenoplectus tabernaemontani</i> )	p. 226
bushy bluestem ( <i>Andropogon glomeratus</i> )	p. 228
buttonbush ( <i>Cephalanthus occidentalis</i> )	p. 122
<b>C</b>	
Cabomba ( <i>Cabomba caroliniana</i> )	p. 26
California bulrush ( <i>Schoenoplectus californicus</i> )	p. 222
California loosesprite ( <i>Lythrum californicum</i> )	p. 74
Canada wild rye ( <i>Elymus canadensis</i> )	p. 236
canna lily ( <i>Canna flaccida</i> )	p. 258
capitate spikerush ( <i>Eleocharis geniculata</i> )	p. 212
cardinal flower ( <i>Lobelia cardinalis</i> )	p. 120
Carolina canary grass ( <i>Phalaris caroliniana</i> )	p. 248
Carolina mosquito fern ( <i>Azolla caroliniana</i> )	p. 10
cattail, broad-leaf ( <i>Typha latifolia</i> )	p. 256
cattail, southern ( <i>Typha domingensis</i> )	p. 254
celery-leaf butter-cup ( <i>Ranunculus scleratus</i> )	p. 32
chairmaker's rush ( <i>Schoenoplectus pungens</i> )	p. 224
Cherokee sedge ( <i>Carex cherokeensis</i> )	p. 182
chufa ( <i>Cyperus esculentus</i> )	p. 200
climbing hempweed ( <i>Mikania scandens</i> )	p. 142
coastal water hyssop ( <i>Bacopa monnieri</i> )	p. 108
common sneezeweed ( <i>Helenium autumnale</i> )	p. 136
common water-nymph ( <i>Najas guadalupensis</i> )	p. 156
common wolffia ( <i>Wolffia columbiana</i> )	p. 170
coontail ( <i>Ceratophyllum demersum</i> )	p. 28
creeping purslane ( <i>Ludwigia palustris</i> )	p. 80
creeping spottflower ( <i>Acmella oppositifolia</i> var. <i>repens</i> )	p. 128
curly dock ( <i>Rumex crispus</i> )	p. 48
cursed crow's foot ( <i>Ranunculus scleratus</i> )	p. 32
<b>D</b>	
deciduous holly ( <i>Ilex decidua</i> )	p. 86
delta arrowhead ( <i>Sagittaria platyphylla</i> )	p. 154
Delta post-oak ( <i>Quercus stellata</i> )	p. 38
dense-flower smartweed ( <i>Polygonum densiflorum</i> )	p. 40
devil's beggar ticks ( <i>Bidens frondosa</i> )	p. 130

## Index of common names:

disk water hyssop ( <i>Bacopa rotundiflora</i> )	p. 110
ditch rabbit-foot grass ( <i>Polypogon interruptus</i> )	p. 250
duck-potato ( <i>Sagittaria latifolia</i> )	p. 152
dwarf palmetto ( <i>Sabal minor</i> )	p. 162
dye bedstraw ( <i>Galium tinctorium</i> )	p. 124
<b>E</b>	
eastern gama grass ( <i>Tripsacum dactyloides</i> )	p. 252
eel-grass ( <i>Vallisneria americana</i> )	p. 158
elegant sneezeweed ( <i>Helenium elegans</i> )	p. 138
elephant's ear taro ( <i>Colocasia esculenta</i> )	p. 166
Emory's sedge ( <i>Carex emoryi</i> )	p. 184
Eurasian water-milfoil ( <i>Myriophyllum spicatum</i> )	p. 70
<b>F</b>	
false nettle ( <i>Boehmeria cylindrica</i> )	p. 36
false indigo bush ( <i>Amorpha fruticosa</i> )	p. 60
fanwort ( <i>Cabomba caroliniana</i> )	p. 26
fiddle dock ( <i>Rumex pulcher</i> )	p. 50
fleabane ( <i>Puucha odorata</i> )	p. 144
flatsedge, fragrant ( <i>Cyperus odoratus</i> )	p. 204
flatsedge, jointed ( <i>Cyperus articulatus</i> )	p. 194
flatsedge, pointed ( <i>Cyperus acuminatus</i> )	p. 192
flatsedge, pond ( <i>Cyperus ochraceus</i> )	p. 202
flatsedge, sticky ( <i>Cyperus elegans</i> )	p. 198
flatsedge, variable ( <i>Cyperus difformis</i> )	p. 196
flat-stem spikerush ( <i>Eleocharis compressa</i> )	p. 210
floating seedbox ( <i>Ludwigia peploides</i> )	p. 82
fragrant flatsedge ( <i>Cyperus odoratus</i> )	p. 204
fragrant water-lily ( <i>Nymphaea odorata</i> )	p. 24
Frank's sedge ( <i>Carex frankii</i> )	p. 186
<b>G</b>	
grass-leaf rush ( <i>Juncus marginatus</i> )	p. 174
green ash ( <i>Fraxinus pennsylvanica</i> )	p. 106
green dragon ( <i>Arisaema dracontium</i> )	p. 164
<b>H</b>	
Halberd-leaf rosemallow ( <i>Hibiscus laevis</i> )	p. 52
hairy-seed paspalum ( <i>Paspalum pubiflorum</i> )	p. 246
hemlock, poison ( <i>Conium maculatum</i> )	p. 92
hemlock, spotted water- ( <i>Cicuta maculata</i> )	p. 90
hemp Sesbania ( <i>Sesbania herbacea</i> )	p. 64
hibiscus ( <i>Hibiscus laevis</i> )	p. 52
hornwort ( <i>Ceratophyllum demersum</i> )	p. 28
horsetail ( <i>Equisetum laevigatum</i> )	p. 2
humped bladderwort ( <i>Utricularia gibba</i> )	p. 118
<b>I</b>	
inland rush ( <i>Juncus marginatus</i> )	p. 174
inland sea oats ( <i>Chasmanthium latifolium</i> )	p. 230
<b>J</b>	
Jamaica sawgrass ( <i>Cladium jamaicense</i> )	p. 190
joint paspalum ( <i>Paspalum distichum</i> )	p. 244
jointed flatsedge ( <i>Cyperus articulatus</i> )	p. 194
jungle rice ( <i>Echinochloa colona</i> )	p. 232
<b>K</b>	
knottgrass ( <i>Paspalum distichum</i> )	p. 244



## Index of common names:

L	
lance-leaf frog fruit ( <i>Phyla lanceolata</i> )	p. 102
large water starwort ( <i>Callitriche heterophylla</i> )	p. 104
Lax hornpod ( <i>Mitreola petiiolata</i> )	p. 96
lesser duck-weed ( <i>Lemna minor</i> )	p. 168
lily, fragrant water- ( <i>Nymphaea odorata</i> )	p. 24
lily, yellow cow ( <i>Nuphar lutea</i> )	p. 22
Lindheimer's muhly ( <i>Muhlenbergia linderheimeri</i> )	p. 238
little speedwell ( <i>Veronica peregrina</i> )	p. 114
little-tooth sedge ( <i>Carex microdonta</i> )	p. 188
lizard's tail ( <i>Saururus cernuus</i> )	p. 16
long-leaf pondweed ( <i>Potamogeton nodosus</i> )	p. 160
loosestrife, California ( <i>Lythrum californicum</i> )	p. 74
loosestrife, stream ( <i>Lythrum ovalifolium</i> )	p. 76
lotus, American ( <i>Nelumbo lutea</i> )	p. 18
low spikesedge ( <i>Cyperus tenuifolius</i> )	p. 206
M	
marsh elder ( <i>Iva annua</i> )	p. 140
marsh seedbox ( <i>Ludwigia palustris</i> )	p. 80
marshpepper smartweed ( <i>Polygonum hydropiper</i> )	p. 42
Mexican seedbox ( <i>Ludwigia octovalvis</i> )	p. 78
mistflower ( <i>Conoclinium coelestinum</i> )	p. 132
miterwort ( <i>Mitreola petiiolata</i> )	p. 96
muhly, Lindheimer's ( <i>Muhlenbergia linderheimeri</i> )	p. 238
muhly, seep ( <i>Muhlenbergia reverchonii</i> )	p. 240
N	
narrow leaf false dragon head ( <i>Physostegia angustifolia</i> )	p. 98
necklaceweed ( <i>Veronica peregrina</i> )	p. 114
northern spicebush ( <i>Lindera benzoin</i> )	p. 14
O	
oak, Delta post- ( <i>Quercus stellata</i> )	p. 38
obedient plant ( <i>Physostegia angustifolia</i> )	p. 98
P	
pale smartweed ( <i>Polygonum lapathifolium</i> )	p. 46
parrot-feather ( <i>Myriophyllum aquaticum</i> )	p. 66
pickerelweed ( <i>Pontederia cordata</i> )	p. 266
pipeplant ( <i>Eclipta alba</i> )	p. 134
pluchea, purple ( <i>Pluchea odorata</i> )	p. 144
pointed flatsedge ( <i>Cyperus acuminatus</i> )	p. 192
poison hemlock ( <i>Conium maculatum</i> )	p. 92
pond flatsedge ( <i>Cyperus ochraceus</i> )	p. 202
pondweed, long-leaf ( <i>Potamogeton nodosus</i> )	p. 160
possumhaw ( <i>Ilex decidua</i> )	p. 86
powdery thalia ( <i>Thalia dealbata</i> )	p. 260
prickly sedge ( <i>Fuirena simplex</i> )	p. 220
purple Ammannia ( <i>Ammannia coccinea</i> )	p. 72
purple pluchea ( <i>Pluchea odorata</i> )	p. 144
purslane ( <i>Veronica peregrina</i> )	p. 114
R	
rattle bush ( <i>Sesbania drummondii</i> )	p. 62
river fern ( <i>Thelypteris kunthii</i> )	p. 6
roundleaf seedbox ( <i>Ludwigia repens</i> )	p. 84
rush, chairmaker's ( <i>Schoenoplectus pungens</i> )	p. 224
rush, grass-leaf ( <i>Juncus marginatus</i> )	p. 174
rush, soft ( <i>Juncus effusus</i> )	p. 172
rush, Texas ( <i>Juncus texanus</i> )	p. 176
rush, Torrey's ( <i>Juncus torreyi</i> )	p. 178

## Index of common names:

rusty flatsedge ( <i>Cyperus odoratus</i> )	p. 204
S	
saltmarsh camphor-weed ( <i>Pluchea odorata</i> )	p. 144
sand spikerush ( <i>Eleocharis montevidensis</i> )	p. 214
scouring rush ( <i>Equisetum laevigatum</i> )	p. 2
sedge, Britton's ( <i>Carex brittoniana</i> )	p. 180
sedge, Cherokee ( <i>Carex cherokeensis</i> )	p. 182
sedge, Emory's ( <i>Carex emoryi</i> )	p. 184
sedge, Frank's ( <i>Carex frankii</i> )	p. 186
sedge, little-tooth ( <i>Carex microdonta</i> )	p. 188
sedge, starbrush white-top ( <i>Dichromena colorata</i> )	p. 208
sedge, western umbrella ( <i>Fuirena simplex</i> )	p. 220
spikesedge, low ( <i>Cyperus tenuifolius</i> )	p. 206
seep muhly ( <i>Muhlenbergia reverchonii</i> )	p. 240
Sesbania, hemp ( <i>S. herbaeca</i> )	p. 64
short-point flatsedge ( <i>Cyperus ochraceus</i> )	p. 202
shrubby water primrose ( <i>Ludwigia octovalvis</i> )	p. 78
smartweed, dense-flower ( <i>Polygonum densiflorum</i> )	p. 40
smartweed, marshpepper ( <i>Polygonum hydropiper</i> )	p. 42
smartweed, pale ( <i>Polygonum lapathifolium</i> )	p. 46
smartweed, swamp ( <i>Polygonum hydropiperoides</i> )	p. 44
sneezeweed, common ( <i>Helenium autumnale</i> )	p. 136
sneezeweed, elegant ( <i>Helenium elegans</i> )	p. 138
soft rush ( <i>Juncus effusus</i> )	p. 172
soft-stem bulrush ( <i>Schoenoplectus tabernaemontani</i> )	p. 226
southern cattail ( <i>Typha domingensis</i> )	p. 254
southern maidenhair fern ( <i>Adiantum capillus-veneris</i> )	p. 4
southern najad ( <i>Najas guadalupensis</i> )	p. 156
southern water fern ( <i>Marsilea vestita</i> )	p. 8
spatter-dock ( <i>Nuphar lutea</i> )	p. 22
spicebush ( <i>Lindera benzoin</i> )	p. 14
spider-lily ( <i>Hymenocallis liriosme</i> )	p. 268
spotted water-hemlock ( <i>Cicuta maculata</i> )	p. 90
spikerush, capitate ( <i>Eleocharis geniculata</i> )	p. 212
spikerush, flat-stem ( <i>Eleocharis compressa</i> )	p. 210
spikerush, sand ( <i>Eleocharis montevidensis</i> )	p. 214
spikerush, square-stem ( <i>Eleocharis quadrangulata</i> )	p. 216
square-stem spikerush ( <i>Eleocharis quadrangulata</i> )	p. 216
starbrush white-top sedge ( <i>Dichromena colorata</i> )	p. 208
sticky flatsedge ( <i>Cyperus elegans</i> )	p. 198
stiff marsh bedstraw ( <i>Galium tinctorium</i> )	p. 124
stream loosestrife ( <i>Lythrum ovalifolium</i> )	p. 76
sumpweed ( <i>Iva annua</i> )	p. 140
swamp smartweed ( <i>Polygonum hydropiperoides</i> )	p. 44
swamp sunflower ( <i>Helenium autumnale</i> )	p. 136
switchgrass ( <i>Panicum virgatum</i> )	p. 242
sycamore ( <i>Platanus occidentalis</i> )	p. 34
T	
tape-grass ( <i>Vallisneria americana</i> )	p. 158
taper-leaf flatsedge ( <i>Cyperus acuminatus</i> )	p. 192
taro ( <i>Colocasia esculenta</i> )	p. 166
Texas rush ( <i>Juncus texanus</i> )	p. 176
three-square ( <i>Schoenoplectus pungens</i> )	p. 224
toothcup ( <i>Ammannia coccinea</i> )	p. 72
Torrey's rush ( <i>Juncus torreyi</i> )	p. 178
true water-cress ( <i>Nasturtium officinale</i> )	p. 56
U	
umbrella sedge ( <i>Dichromena colorata</i> )	p. 208
upright burhead ( <i>Echinodorus berteroi</i> )	p. 148

# Index of common names:

## V

variable flatsedge ( <i>Cyperus difformis</i> ) . . . . .	p. 196
variable water-milfoil ( <i>Myriophyllum heterophyllum</i> ). . . . .	p. 68

## W

water celery ( <i>Vallisneria americana</i> ) . . . . .	p. 158
water clover ( <i>Marsilea vestita</i> ) . . . . .	p. 8
water-cress ( <i>Nasturtium officinale</i> ) . . . . .	p. 56
water daisy ( <i>Acmella oppositifolia</i> var. <i>repens</i> ) . . . . .	p. 128
water hyacinth ( <i>Eichhornia crassipes</i> ) . . . . .	p. 262
water hyssop, coastal ( <i>Bacopa monnieri</i> ) . . . . .	p. 108
water hyssop, disk ( <i>Bacopa rotundiflora</i> ) . . . . .	p. 110
water-meal ( <i>Wolffia columbiana</i> ) . . . . .	p. 170
water-milfoil, Eurasian ( <i>Myriophyllum spicatum</i> ) . . . . .	p. 70
water-milfoil, variable ( <i>Myriophyllum heterophyllum</i> ) . . . . .	p. 68
water-pennywort ( <i>Hydrocotyle verticillata</i> ) . . . . .	p. 94
water pimpinell ( <i>Samolus parviflorus</i> ) . . . . .	p. 58
water primrose ( <i>Ludwigia peploides</i> ) . . . . .	p. 82
water-shield ( <i>Brasenia schreberi</i> ) . . . . .	p. 20
water smartweed ( <i>Polygonum hydropiper</i> ) . . . . .	p. 42
water speedwell ( <i>Veronica anagallis-aquatica</i> ) . . . . .	p. 112
water star grass ( <i>Heteranthera dubia</i> ) . . . . .	p. 264
water-willow ( <i>Justicia americana</i> ) . . . . .	p. 116
western spider-lily ( <i>Hymenocallis liriosme</i> ) . . . . .	p. 268
western umbrella-sedge ( <i>Fuirena simplex</i> ) . . . . .	p. 220
white water-lily ( <i>Nymphaea odorata</i> ) . . . . .	p. 24
widespread maiden fern ( <i>Thelypteris kunthii</i> ) . . . . .	p. 6
wild columbine ( <i>Aquilegia canadensis</i> ) . . . . .	p. 30
willow ( <i>Salix nigra</i> ) . . . . .	p. 54
willow-weed ( <i>Polygonum lapathifolium</i> ) . . . . .	p. 46
winged loosestrife ( <i>Lythrum californicum</i> ) . . . . .	p. 74
Wolffia ( <i>Wolffia columbiana</i> ) . . . . .	p. 170
wood sage ( <i>Teucrium canadense</i> ) . . . . .	p. 100

## Y

yellow cow-lily ( <i>Nuphar lutea</i> ) . . . . .	p. 22
yellow lotus ( <i>Nelumbo lutea</i> ) . . . . .	p. 18
yellow nutgrass ( <i>Cyperus esculentus</i> ) . . . . .	p. 200
yerba de tajo ( <i>Eclipta alba</i> ) . . . . .	p. 134

## Index of scientific names:

### A

<i>Acer negundo</i> . . . . .	p. 88
<i>Acmella oppositifolia</i> var. <i>repens</i> . . . . .	p. 128
<i>Adiantum capillus-veneris</i> . . . . .	p. 4
<i>Ammannia coccinea</i> . . . . .	p. 72
<i>Amorpha fruticosa</i> . . . . .	p. 60
<i>Andropogon glomeratus</i> . . . . .	p. 228
<i>Arisaema dracontium</i> . . . . .	p. 164
<i>Aquilegia canadensis</i> . . . . .	p. 30
<i>Azolla caroliniana</i> . . . . .	p. 10

### B

<i>Bacopa monnieri</i> . . . . .	p. 108
<i>Bacopa rotundiflora</i> . . . . .	p. 110
<i>Bidens frondosa</i> . . . . .	p. 130
<i>Boehmeria cylindrica</i> . . . . .	p. 36
<i>Brasenia schreberi</i> . . . . .	p. 20

### C

<i>Cabomba caroliniana</i> . . . . .	p. 26
<i>Callitriche heterophylla</i> . . . . .	p. 104
<i>Canna flaccida</i> . . . . .	p. 258
<i>Carex brittoniana</i> . . . . .	p. 180
<i>Carex cherokeensis</i> . . . . .	p. 182
<i>Carex emoryi</i> . . . . .	p. 184
<i>Carex frankii</i> . . . . .	p. 186
<i>Carex microdonta</i> . . . . .	p. 188
<i>Cephalanthus occidentalis</i> . . . . .	p. 122
<i>Ceratophyllum demersum</i> . . . . .	p. 28
<i>Chasmanthium latifolium</i> . . . . .	p. 230
<i>Cicuta maculata</i> . . . . .	p. 90
<i>Cladium jamaicense</i> . . . . .	p. 190
<i>Colocasia esculenta</i> . . . . .	p. 166
<i>Conium maculatum</i> . . . . .	p. 92
<i>Conoclinium coelestinum</i> . . . . .	p. 132
<i>Cyperus acuminatus</i> . . . . .	p. 192
<i>Cyperus articulatus</i> . . . . .	p. 194
<i>Cyperus difformis</i> . . . . .	p. 196
<i>Cyperus elegans</i> p. 198 <i>Cyperus esculentus</i> . . . . .	p. 200
<i>Cyperus ochraceus</i> . . . . .	p. 202
<i>Cyperus odoratus</i> . . . . .	p. 204
<i>Cyperus tenuifolius</i> . . . . .	p. 206

### D

<i>Dichromena colorata</i> . . . . .	p. 208
--------------------------------------	--------

### E

<i>Echinochloa colona</i> . . . . .	p. 232
<i>Echinochloa crusgalli</i> . . . . .	p. 234
<i>Echinodorus berteroi</i> . . . . .	p. 148
<i>Eclipta alba</i> . . . . .	p. 134
<i>Eichhornia crassipes</i> . . . . .	p. 262
<i>Eleocharis compressa</i> . . . . .	p. 210
<i>Eleocharis geniculata</i> . . . . .	p. 212
<i>Eleocharis montevidensis</i> . . . . .	p. 214
<i>Eleocharis quadrangulata</i> . . . . .	p. 216
<i>Equisetum laevigatum</i> . . . . .	p. 2
<i>Elymus canadensis</i> . . . . .	p. 236

### F

<i>Fimbristylis annua</i> . . . . .	p. 218
<i>Fraxinus pennsylvanica</i> . . . . .	p. 106

## Index of scientific names:

<i>Fuirena simplex</i> . . . . .	p. 220
----------------------------------	--------

### G

<i>Galium tinctorium</i> . . . . .	p. 124
------------------------------------	--------

### H

<i>Helenium autumnale</i> . . . . .	p. 136
<i>Helenium elegans</i> . . . . .	p. 138
<i>Heteranthera dubia</i> . . . . .	p. 264
<i>Hibiscus laevis</i> . . . . .	p. 52
<i>Hydrocotyle verticillata</i> . . . . .	p. 94
<i>Hymenocallis liriosme</i> . . . . .	p. 268

### I

<i>Ilex decidua</i> . . . . .	p. 86
<i>Iva annua</i> . . . . .	p. 140

### J

<i>Juncus effusus</i> p. 172 . . . . .	
<i>Juncus marginatus</i> . . . . .	p. 174
<i>Juncus texanus</i> p. 176 . . . . .	
<i>Juncus torreyi</i> . . . . .	p. 178
<i>Justicia americana</i> . . . . .	p. 116

### L

<i>Lemna minor</i> . . . . .	p. 168
<i>Lindera benzoin</i> . . . . .	p. 14
<i>Lobelia cardinalis</i> . . . . .	p. 120
<i>Ludwigia octovalvis</i> . . . . .	p. 78
<i>Ludwigia palustris</i> . . . . .	p. 80
<i>Ludwigia peploides</i> . . . . .	p. 82
<i>Ludwigia repens</i> . . . . .	p. 84
<i>Lythrum californicum</i> . . . . .	p. 74
<i>Lythrum ovalifolium</i> . . . . .	p. 76

### M

<i>Marsilea vestita</i> . . . . .	p. 8
<i>Mikania scandens</i> . . . . .	p. 142
<i>Mitrella petiolata</i> . . . . .	p. 96
<i>Muhlenbergia linderheimeri</i> . . . . .	p. 238
<i>Muhlenbergia reverchonii</i> . . . . .	p. 240
<i>Myriophyllum aquaticum</i> . . . . .	p. 66
<i>Myriophyllum heterophyllum</i> . . . . .	p. 68
<i>Myriophyllum spicatum</i> . . . . .	p. 70

### N

<i>Najas guadalupensis</i> . . . . .	p. 156
<i>Nasturtium officinale</i> . . . . .	p. 56
<i>Nelumbo lutea</i> . . . . .	p. 18
<i>Nuphar lutea</i> . . . . .	p. 22
<i>Nymphaea odorata</i> . . . . .	p. 24

### P

<i>Panicum virgatum</i> . . . . .	p. 242
<i>Paspalum distichum</i> . . . . .	p. 244
<i>Paspalum pubiflorum</i> . . . . .	p. 246
<i>Phalaris caroliniana</i> . . . . .	p. 248
<i>Phyla lanceolata</i> . . . . .	p. 102
<i>Physostegia angustifolia</i> . . . . .	p. 98
<i>Platanus occidentalis</i> . . . . .	p. 34
<i>Pluchea odorata</i> . . . . .	p. 144



## Index of scientific names:

<i>Polygonum densiflorum</i> . . . . .	p. 40
<i>Polygonum hydropiper</i> . . . . .	p. 42
<i>Polygonum hydropiperoides</i> . . . . .	p. 44
<i>Polygonum lapathifolium</i> . . . . .	p. 46
<i>Polygonum interruptus</i> . . . . .	p. 250
<i>Pontederia cordata</i> . . . . .	p. 266
<i>Potamogeton nodosus</i> . . . . .	p. 160

### Q

<i>Quercus stellata</i> . . . . .	p. 38
-----------------------------------	-------

### R

<i>Ranunculus scleratus</i> . . . . .	p. 32
<i>Rumex crispus</i> . . . . .	p. 48
<i>Rumex pulcher</i> . . . . .	p. 50

### S

<i>Sabal minor</i> . . . . .	p. 162
<i>Sagittaria lancifolia</i> . . . . .	p. 150
<i>Sagittaria latifolia</i> . . . . .	p. 152
<i>Sagittaria platyphylla</i> . . . . .	p. 154
<i>Salix nigra</i> . . . . .	p. 54
<i>Sambucus canadensis</i> . . . . .	p. 126
<i>Samolus parviflorus</i> . . . . .	p. 58
<i>Saururus cernuus</i> . . . . .	p. 16
<i>Schoenoplectus californicus</i> . . . . .	p. 222
<i>Schoenoplectus pungens</i> . . . . .	p. 224
<i>Schoenoplectus tabernaemontani</i> . . . . .	p. 226
<i>Sesbania drummondii</i> . . . . .	p. 62
<i>Sesbania herbacea</i> . . . . .	p. 64
<i>Symphotrichum divaricatum</i> . . . . .	p. 146

### T

<i>Taxodium distichum</i> . . . . .	p. 12
<i>Teucrium canadense</i> . . . . .	p. 100
<i>Thalia dealbata</i> . . . . .	p. 260
<i>Thelypteris kunthii</i> . . . . .	p. 6
<i>Tripsacum dactyloides</i> . . . . .	p. 252
<i>Typha domingensis</i> . . . . .	p. 254
<i>Typha latifolia</i> . . . . .	p. 256

### U

<i>Utricularia gibba</i> . . . . .	p. 118
------------------------------------	--------

### V

<i>Vallisneria americana</i> . . . . .	p. 158
<i>Veronica anagallis-aquatica</i> . . . . .	p. 112
<i>Veronica peregrina</i> . . . . .	p. 114

### W

<i>Wolffia columbiana</i> . . . . .	p. 170
-------------------------------------	--------