BWSR NRCS Wetland Plant ID Training 2009

Sedges and Rushes
VEGETATIVE STEMS

SEDGE

closed sheath

leaf blade

culm (round)

culm (triangular)

RUSH

closed sheath

round leaf with septa

leaf blade

GRASS

leaf blade

node

auricle

ligule

open sheath

culm (round)

1 Note: Not all rush leaves are round, but when rush leaves are round, they have septa.
Figure 6. Distinguishing characteristics of grasses, sedges, and rushes. (Source: Field Guide to Nontidal Wetland Identification, Tiner 1988)
Carex - True Sedges
(Family : Cyperaceae)

- Triangular stems
- 3 leaves
- Bisexual or unisexual
  - Both male and female on same spikelet
  - Male and female on different spikelets
  - Male and female on different plants
- Florets terminal or lateral
- Achenes enclosed in a perigynium
Male and Female flowers separate

Gynecandrous
Questions to ask yourself when IDing *Carex* spp.

- Sheath: glabrous or pubescent
- Sheath: Lattice of fibers or papery
- Sheath: color? (green, purplish, brown, etc.)
- Spikes: Separate male and female, gynecandrous or androgynous
- Spikes: upright, sessile, peduncled
- Perigynia: length
- Perigynia: pubescent or glaucous
- Achene: 2 or 3 sided
Lake Sedge
Carex lacustris

- Leaves coarse, M-shaped, blue-green
- Lower sheath red to purplish with lattice of fibers
- Pistillate spikelets attach directly to the stem or have short stalks
- 2-4 staminate spikelets
- Perigynium has no hairs, distinctly ribbed, and tapers into a beak. 3-angled nutlet
Lake Sedge

*Carex lacustris*
Slough Sedge

*Carex atherodes*

- Hairs present on leaves and sheaths!!
- Purplish at base with lattice of fibers
- Perigynium has no hairs, distinctly ribbed, and tapers into a beak. 3-angled nutlet
Hummock sedge
*Carex stricta*  OBL

- Stems usually longer than the leaves (slender)
- Leaves are V shaped
- Forms large hummocks
- Lower sheath with lattice of fibers
- Perigynia are relatively flat and lack beaks
Hummock sedge

*Carex stricta*
Stalk-grained sedge
*Carex stipata* OBL

- Winged triangular stems
- Coarse M-shaped leaves are usually shorter than the stem
- Whitish thin wrinkled sheaths at the base
- Perigynium is lance-shaped with a beak less than twice as long as the body.
- Inflorescence appears prickly
Stalk-grained sedge

*Carex stipata*
Fox Sedge
Carex vulpinoidea OBL

- Clump-forming
- Leaves generally longer than the stem
- Bristle-like bract at base of some spikelets
- Stems are firm with whitish, thin wrinkled sheaths
- Perigynia are lance-ovate and taper into a beak.
Fox Sedge

*Carex vulpinoidea*
**Scirpus - Bulrushes**
(Family : Cyperaceae)

- Solid stem; some round, some triangular
- Leaves present
- Florets usually whorled
- Florets are bisexual in same seed head
Softstem Bulrush
*Schoenoplectus tabernaemontani*
*Scirpus validus*

- Round stem
- Stems spongy and easily compressed
- More than 10 spikelets (less than 10mm long)
Hardstem Bulrush
Scirpus acutus  OBL
River Bulrush

*Scirpus fluviatilis* OBL

- Sharply triangle stem
- Terminal spike
- Spikelets 1-3 cm long
- Peduncle and sessile
Green Bulrush
*Scirpus atrovirens*

- Rounded triangle stem
- Terminal spike
- Spikelets 2-8mm long
- Peduncle and sessile spherical clusters of spikelets
- Sheaths green or brown (no red)
Green Bulrush

*Scirpus atrovirens OBL*
Woolgrass

*Scirpus cyperinus* OBL

- Nearly round stem
- Terminal spike
- Spikelets 3-8mm long
- Peduncled
- Sheaths green or brown (no red)
- Appearing woolly – long bristles
Woolgrass

*Scirpus cyperinus*
Yellow Nutsedge
*Cyperus esculentus*

- Triangle stem
- Leaves light yellowish-green, mostly basal
- Terminal inflorescence
- Spikelets are bright yellow, extending perpendicular to the main stem.
- Each spikelet “branch” is 3-12cm long
- Scales are 2-3mm long
Yellow Nutsedge
*Cyperus esculentus*
Eleocharis - Spikerushes

(Family: Cyperaceae) All FACW or OBL

- Round solid stem (usually)
- “Leafless”
- Terminal spike
- Florets usually whorled
Juncus – True Rushes
(Family : Juncaceae)

- Solid round (generally) stem
- Fruit is a capsule with many seeds
- Flowers are bisexual; lateral or terminal
Slender Rush

*Juncus tenuis* FAC

- 10-80 cm tall
- Basal leaves only, 1/3 the height of the stem
- Flowers born singly
- Terminal flower head
- Tepals often equal or longer than capsule