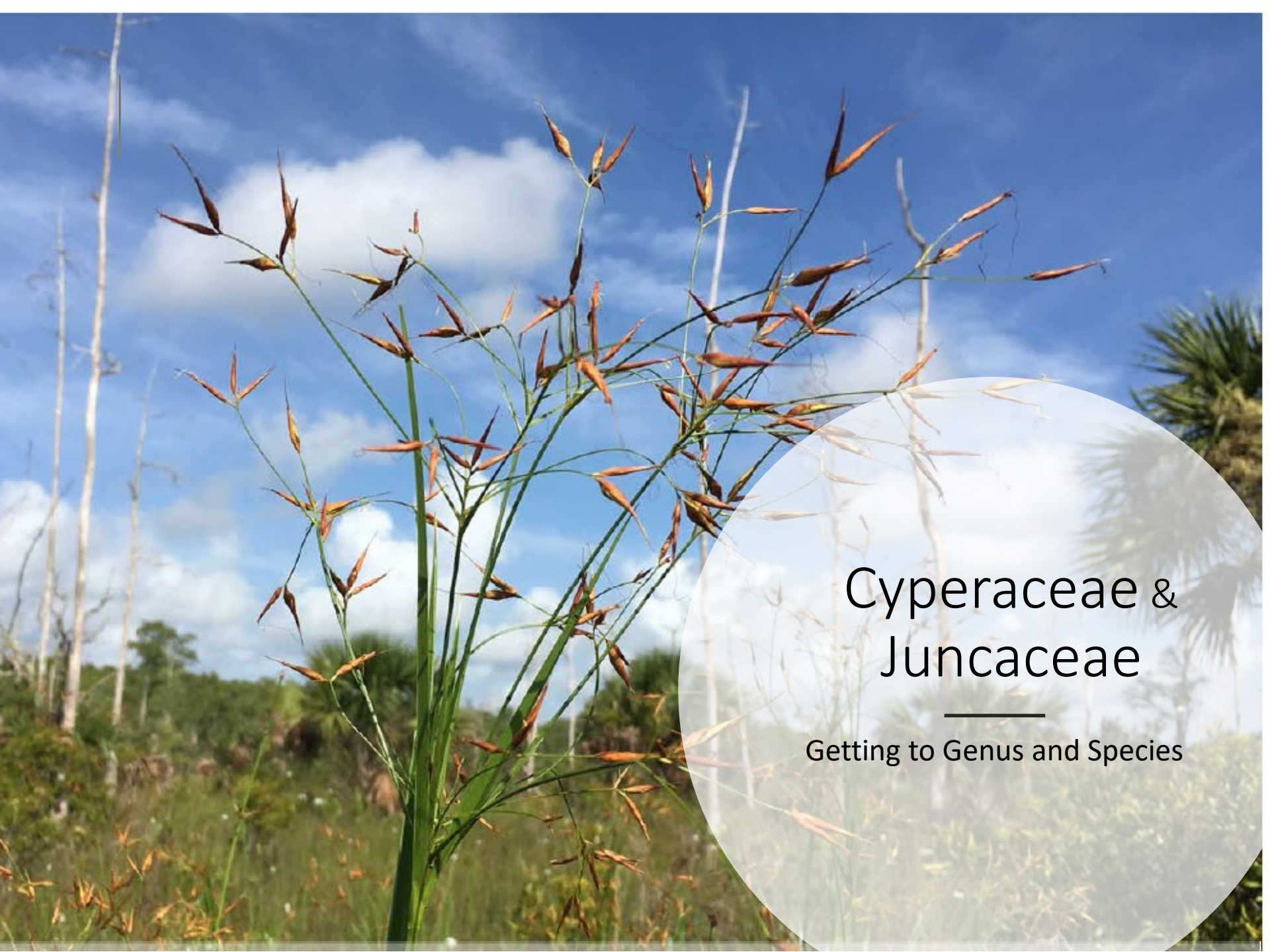


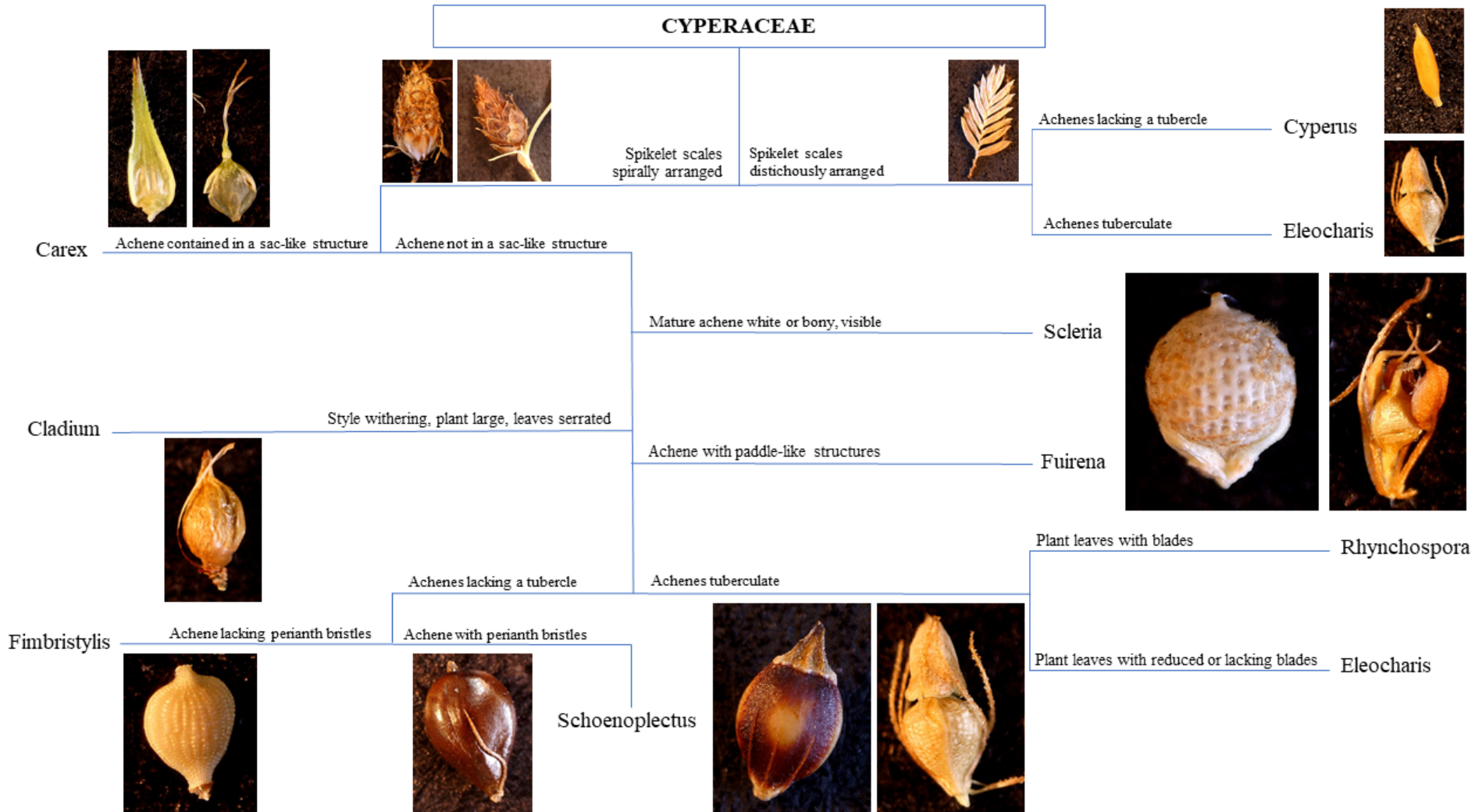


Cyperaceae & Juncaceae

Getting to Genus and Species

CYPERACEAE –THE SEDGE FAMILY

Key courtesy of Erick Revuelta, SJRWMD



CYPERUS – SPIKELET ARRANGEMENT



Inflorescence



Spike with visible rachis



Spikelet

CYPERUS – SPIKELET ARRANGEMENT

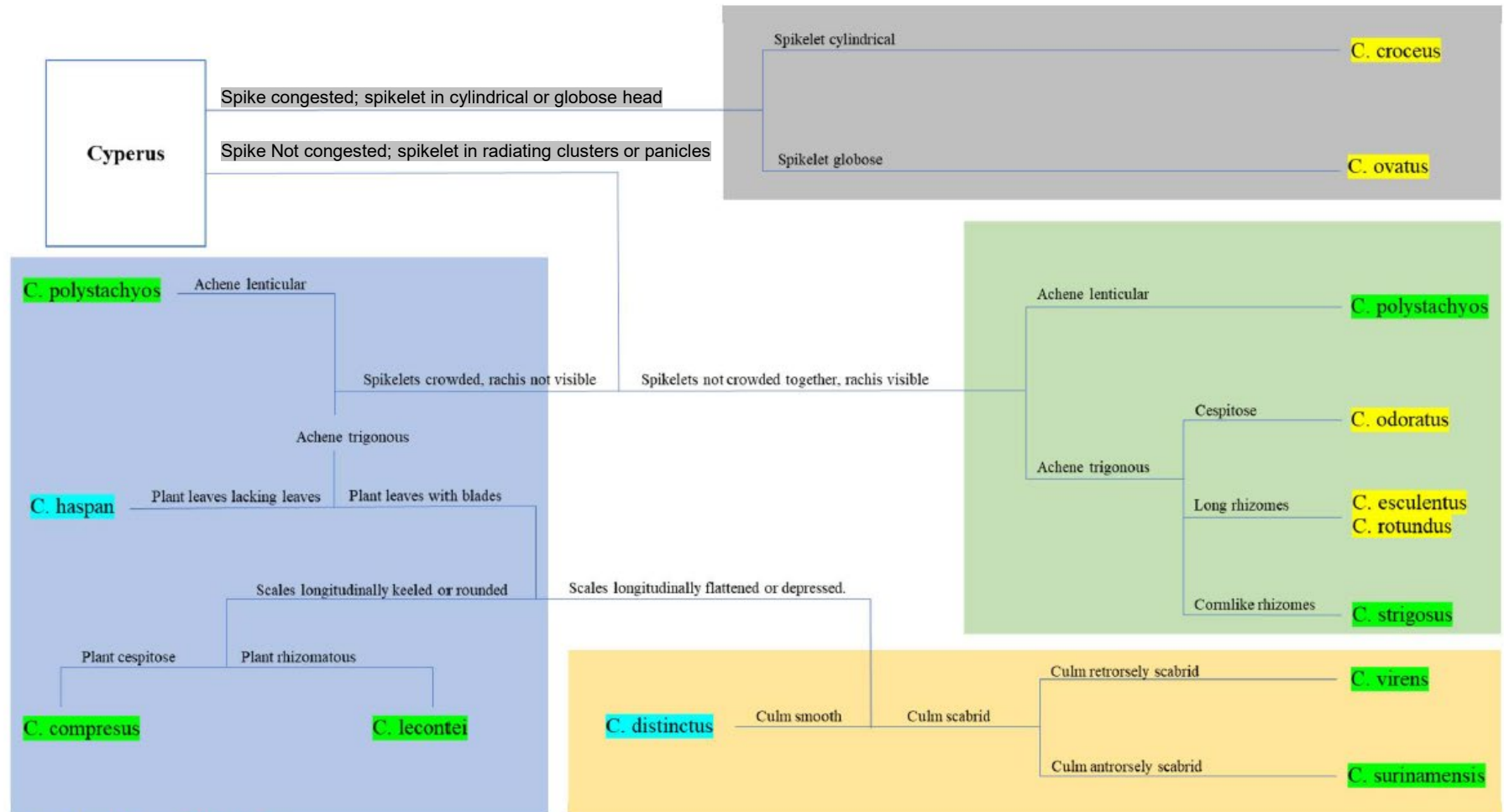


Spikelet rachis hidden by the spikelets. Clusters are not rounded/globose or elliptical. Clusters can contain many or few spikelets.

- 1- *C. distinctus* inflorescence
- 2- *C. distinctus* spike
- 3- *C. distinctus* spikelet
- 4- *C. compressus* spike.



CYPERUS



FAC FACW OBL

CYPERUS – Group I

Cyperus ovatus



Cyperus croceus



Cyperus ligularis



Cyperus filiculmis



Spikes in this group are cylindrical or globose; many in this group are transitional or UPL, but *C. ligularis* is FACW.

CYPERUS – Group II

Cyperus tetragonous



Cyperus esculentus



Cyperus odoratus



Spikes in this group are in radiating clusters or panicles; spikelets are spaced along an elongated, visible rachis (stalk). 11 species in FL, many in lake margins and other wet places.

CYPERUS – Group III

Cyperus polystachyos



Cyperus haspan



Cyperus lecontei



Cyperus compressus

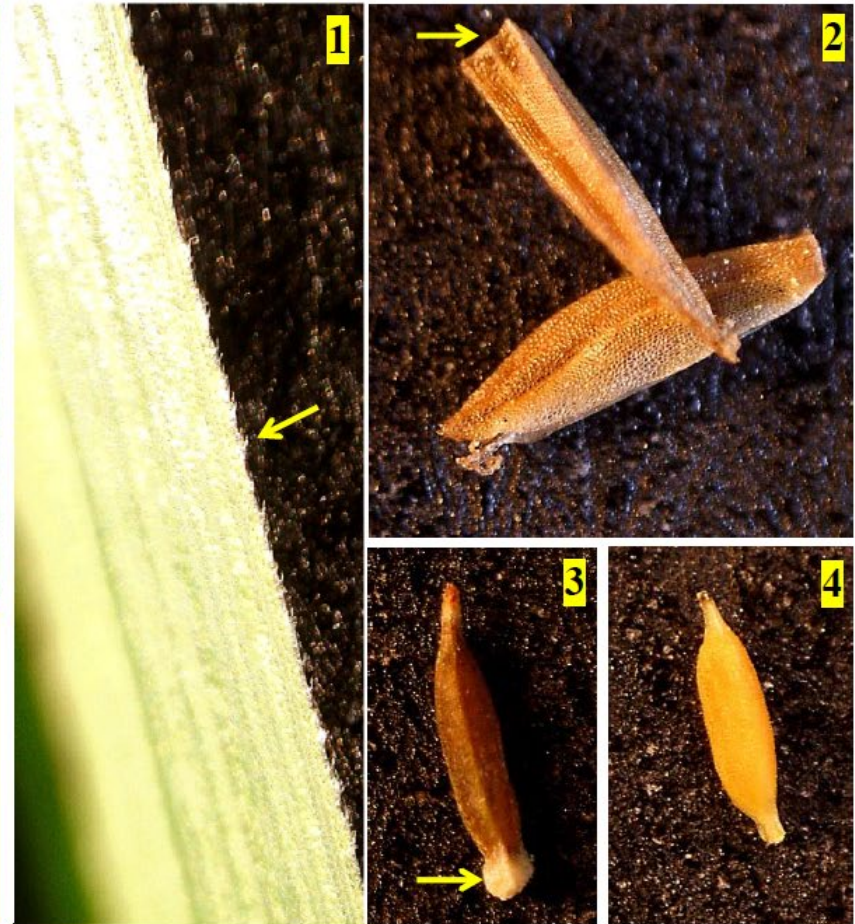


Spikes in this group are in radiating clusters or panicles; rachis HIDDEN by the spikelets; Many species, many of wet places. Stem of *C. haspan* strongly 3-sided but soft; all but *C. polystachyos* have 3-sided achene

CYPERUS – Group IV



Group IV: Achene in radiating clusters or panicles, rachis hidden by the spikelets; spikes 2x as long as wide. The spikelets for the species in this group resemble mini sea oats. The back of the scales is usually flat or depressed (2). There are nine species in this group, OBL (3), FACW (6). *C. distinctus* is the only common OBL species, distinguished from *C. virens* and *C. surinamensis* by having a smooth culm. *C. virens* and *C. surinamensis* are both FACW. *C. virens* scabrosity (hairs) antrorse (pointed up towards inflorescence). *C. surinamensis* scabrosity retrorse (pointed down towards the base).



RHYNCHOSPORA – FLOWCHART

Rhynchospora

Bracts subtending the inflorescence white

Bracts 3-6, tubercle not decurrent on achene, white portion < 2.5 cm long

R. colorata

Bracts 6-8, tubercle not decurrent on achene, white portion > 2.2 cm long

R. latifolia

Spikelet scales spirally arranged, > 10 flowers per spike

R. nitens

Inflorescence a tight, globose head

R. tracyi

Inflorescence paniculate

Bristles > achene body

R. inundata

Bristles < or = to achene body

R. corniculata

Tubercle < 2 mm long

Tubercle > 2 mm long

R. plumosa

Perianth bristles plumose

R. divergens

Perianth bristles absent

Bristles antrorsely barbed

Bristles retrorsely barbed or absent

Spikelet cluster
> 1.5 cm wide

Spikelet cluster <
1.0 cm wide

R. cephalantha

R. microcephala

Achene surface smooth

Achene surface ridged or honeycombed

Culm leaves filiform-wiry

R. rariflora

Perianth bristles < achene

Perianth bristles > achene

R. ciliaris

Leaves abruptly tapered

R. fascicularis

Perianth bristles < 1/2 of the achene

Perianth bristles > 1/2 of the achene

Achene 1.3 to 1.5 mm

Achene < 1.0 mm

R. filifolia

Perianth bristles < achene body

Perianth bristles > achene body

R. fernaldii

Tubercle conic,
achene 1.6-2 mm long

R. globularis

Tubercle deltoid,
achene 1-1.2 mm long

R. microcarpa

Tubercle
margin smooth

Tubercle
margin setose

R. caduca

Inflorescence in
spreading clusters
along the stem

R. miliacea

Inflorescence in ascending,
often reflexed fascicles

FAC

FACW

OBL

DICHROMENA & PSYLOCARYA



Section Dichromena:

section marker is the white bracts subtending the inflorescence. Three species in FL, all FACW. Two species are common or frequent. *R. floridensis* is only found in SFla. *R. latifolia* and *R. colorata* are usually distinguished by the length of the white portion of the bracts as well as the shape of the achene.



Section Psylocarya: section marker umbelliform inflorescence, spikelets with >10 scales, spirally arranged. Three species in FL, OBL (2) and FACW (1). *R. nitens* is the only common or frequent. At first sight the species in the section Psylocarya can be confused for a Fimbristylis. However, the tubercle bearing achenes should dispel any doubts.



LONGIROSTRES



Longirostres: Achene tubercle > 2mm long. Three *R. corniculata*, *R. inundata* and *R. macrostachya* have a paniculate inflorescence. All species are OBL, except *R. macrostachya* (FACW). *R. macrostachya* is restricted to Baker and Nassau Co. *R. corniculata* and *R. inundata* are separated based on the length of the perianth bristles.



POLYCEPHALAE



Polycephalae: Section marker achene tubercle > 2mm long. Unlike the species in Section Longirostres, (*R. corniculata*, *R. inundata* and *R. macrostachya*) *R. tracyi* has a compact, globose, head-like inflorescence and terete (round) leaves. Common throughout Florida. When not in flower may be confused with some grasses (*R. capillaris*, *P. monostachyum*), and or rushes. *R. tracyi* will often have thin, white parallel veins on the sheath.

PLUMOSAE & PUSILLAE



Section Plumosae: Achene bristles plumose. Five species in FL, OBL(1), FACW (2) and UPL (2). *R. intermedia* (UPL) is frequent in sandhill. Other UPL (*R. megaplumosa*) species is found in scrubby flatwoods around in the Lake Wales Region.



Section Pusillae: Achene bristles absent. Three species in FL, FACW and OBL. Only *R. divergens* is common throughout Florida. *R. divergens* achene can have an achene surface that is smooth or finely reticulate.

ALBAE, FASCICULARES, CHAMPMANIAE & FUSCAE



Section Albae: section marker achene bristles retrorsely barbed and elongated stipe (achene base). Five species in FL, OBL (1) and FACW (4). Two species are common or frequent. Both species has spikelets arranged in tight, head-like clusters. *R. microcephala* (FACW), as the name suggests has spikelets arranged in small (>1cm wide) heads. *R. cephalantha* (OBL) heads are 1.5 – 5cm wide.



Section Fasciculares/Champaniae/Fuscae: section markers achene bristles antrorsely barbed, achene surface smooth. 11 species in FL, FACW (10) and OBL (1). Four common/frequent species, all FACW. *R. fascicularis* is by far the most common species and very variable. *R. ciliaris* has abruptly short leaves. *R. filifolia* and *R. fernaldii* have small (>1.1mm long) achenes.

RARIFLORA, GLOBULARES & MIXTAE



Section Rariflorae: Achene bristles antorsely barbed, surface transversely ridged and filiform-wiry leaves. Three species in FL, OBL (1), FACW (2). Only one common/frequent *R. rariflora*, the spikelets are usually solitary.



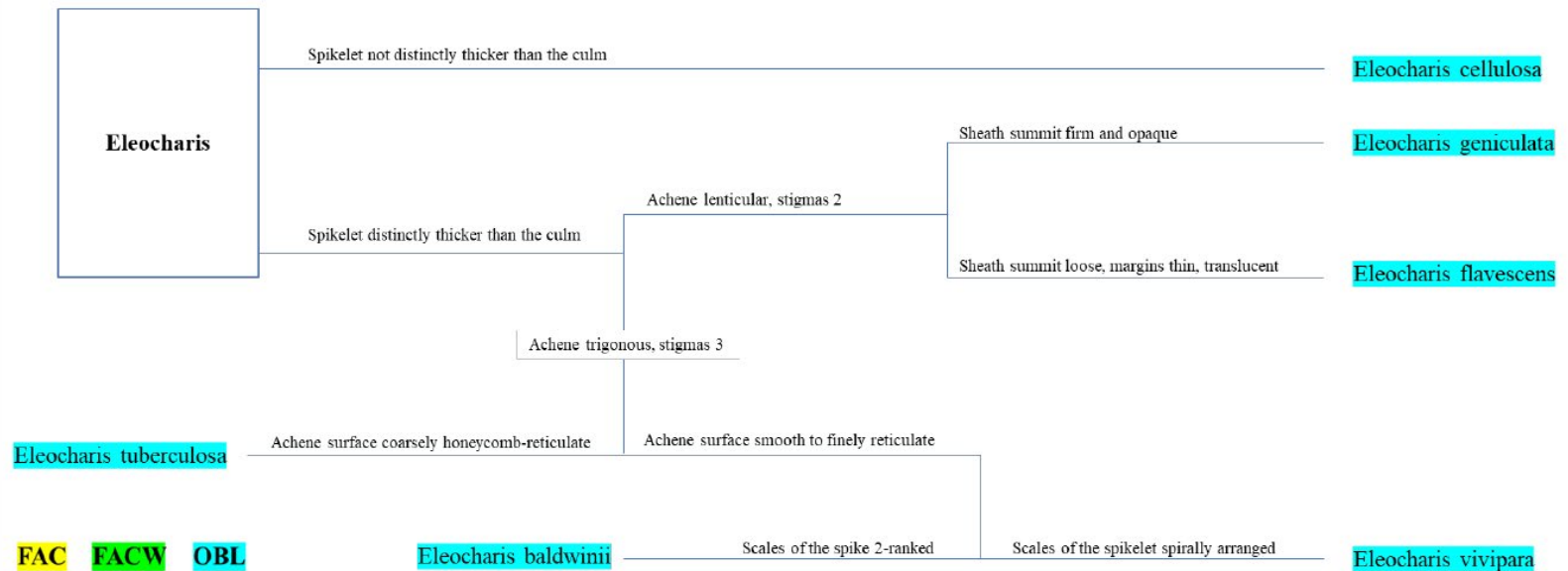
Section Globulares: Achene bristles antorsely barbed, surface transversely ridged or honeycombed-reticulate. Two species in FL, both FACW. *R. globularis* is common and can be distinguished from similar species by having a bulging achene and conical tubercle.



Section Mixtae: section markers achene bristles antorsely barbed, achene surface transversely ridged or honeycombed-reticulate. Six species in Florida, FACW (2) and OBL (4). Three species are common or frequent. *R. caduca* (FACW) has tubercle with setose margins and intergrades with *R. odorata* (FACW). *R. miliaceae*, can be distinguished from all other species in Section Mixtae by having spikelets spreading at 90° angles. *R. odorata* is more common in Central and South Florida and can be very similar to *R. caduca*. However, its spikelets are larger usually 6-9 mm in length.



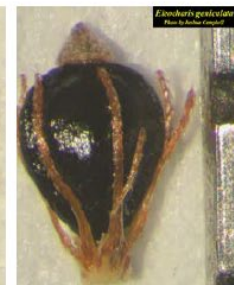
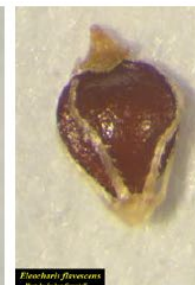
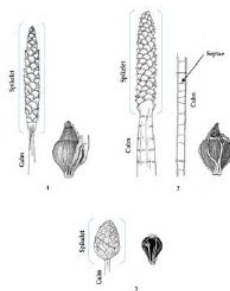
ELEOCHARIS – FLOWCHART



FAC

FACW

OBL



SCHOENOPLECTUS

Schoenoplectus

Spikelets on peduncles

Schoenoplectus pungens

Spikelets sessile

Schoenoplectus tabernaemontani
(*Scirpus validus*)



© Northern Forest Atlas



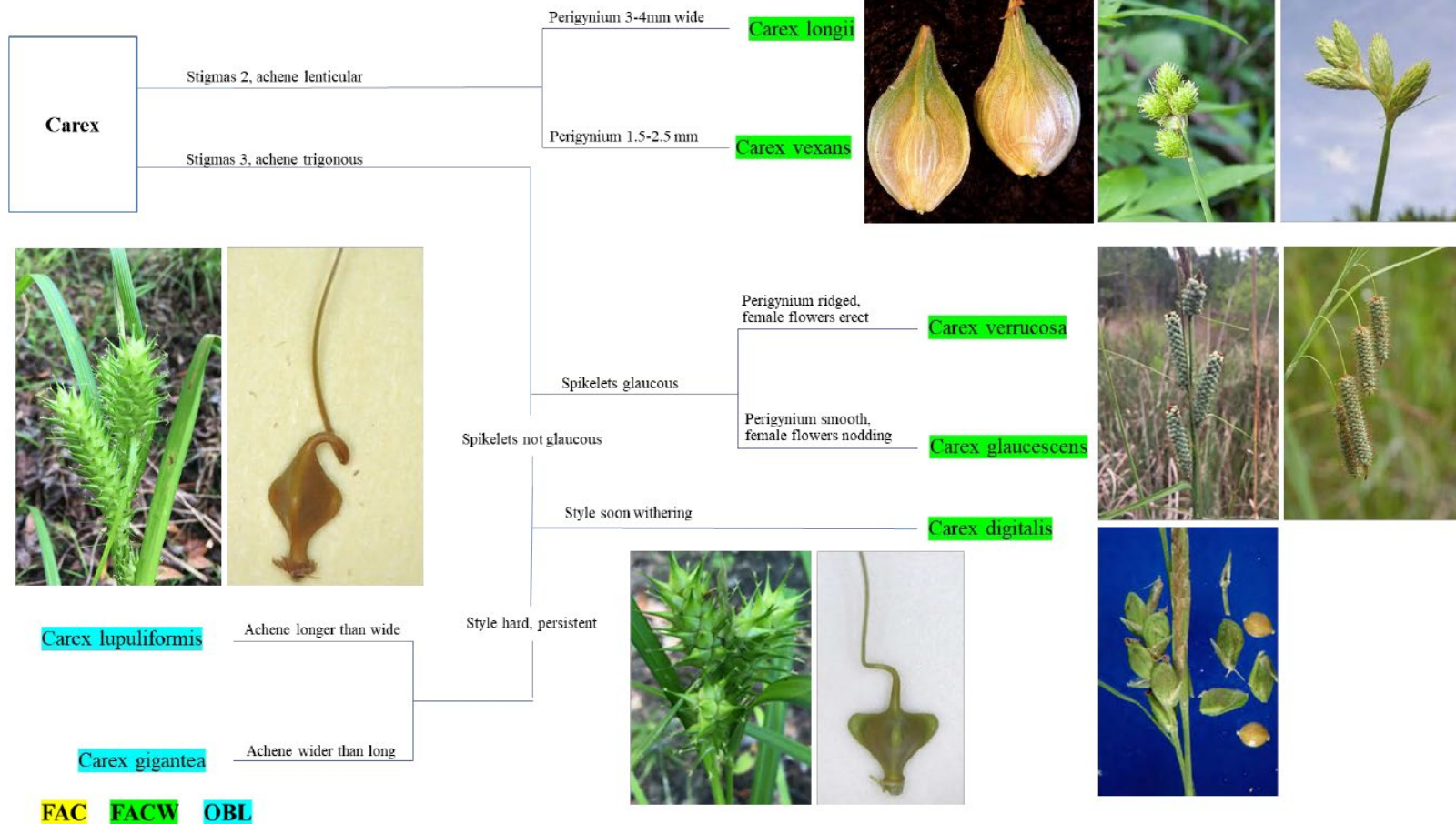
© 2015 Steve D. Eggers

FAC

FACW

OBL

CAREX



FUIRENA

Fuirena

Plants lacking leaves, spikelets sessile, in terminal clusters with 1-3 spikelets

Fuirena scirpoidea

Plants with obvious leaves, spikelets in multiple clusters of 1-3 spikelets

Perianth bristles as long as achene

Fuirena breviseta

Perianth bristles $\frac{1}{4}$ the length of the achene

Fuirena pumila



SCLERIA

Scleria

Achene body reticulate often with tufts of hairs

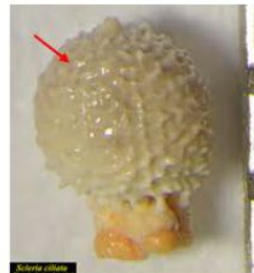
Achene body verrucose or papillose without hairs

Achene body smooth and shiny

Scleria reticularis



Scleria ciliata



Scleria triglomerata

Achene base subtended by a granular disk



Achene base narrowed without granular disk of tubercles

Scleria baldwinii

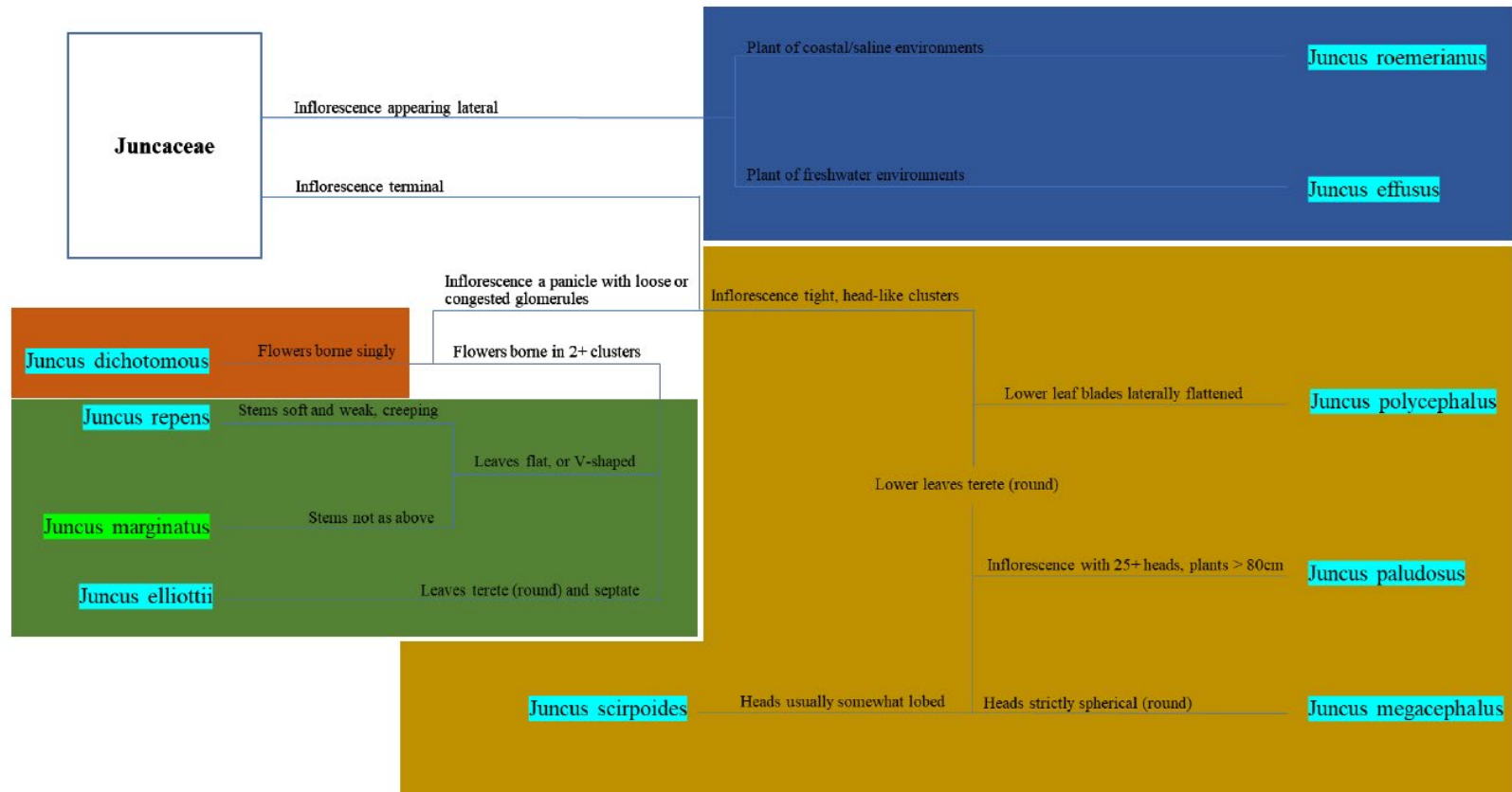


FAC

FACW

OBL

JUNCACEAE – FLOWCHART



FAC

FACW

OBL

JUNCACEAE – Morphological Features

