JUNCACEAE - THE RUSH FAMILY

Juncaceae:

Genera: Juncus (22) and Luzula (2)

Mostly freshwater wetlands (except *J. roemerianus)*

10 species are common or frequent:

Juncus roemerianus	*Juncus effusus*
Juncus megacephalus	*Juncus marginatus*
Juncus scirpoides	*Juncus dichotomous*
Juncus repens	*Juncus elliottii*
Juncus paludosus	*Juncus polycephalus*

Morphological Features:

- Cespitose or rhizomatous
- Leaves 3-ranked, mostly terete (round) and septate, a few species have flat leaves
- Culm (stems) pithy
- Nodes without joints
- Inflorescence an open or congested; lateral or terminal; panicles or heads
- Sheaths fused or overlapping
- Fruit is a three-part capsule containing many seeds


Credit: *floridagrasses.org*


Credit: John R. Gwaltney


Credit: Hilton Pond Center


Credit: *floridagrasses.org*

JUNCACEAE - Rushes

Common Rushes:

1. Juncus effusus: Usually 1m tall or so. flowers appearing lateral, sheaths lacking blades. Often found growing in depressional areas within pastures.

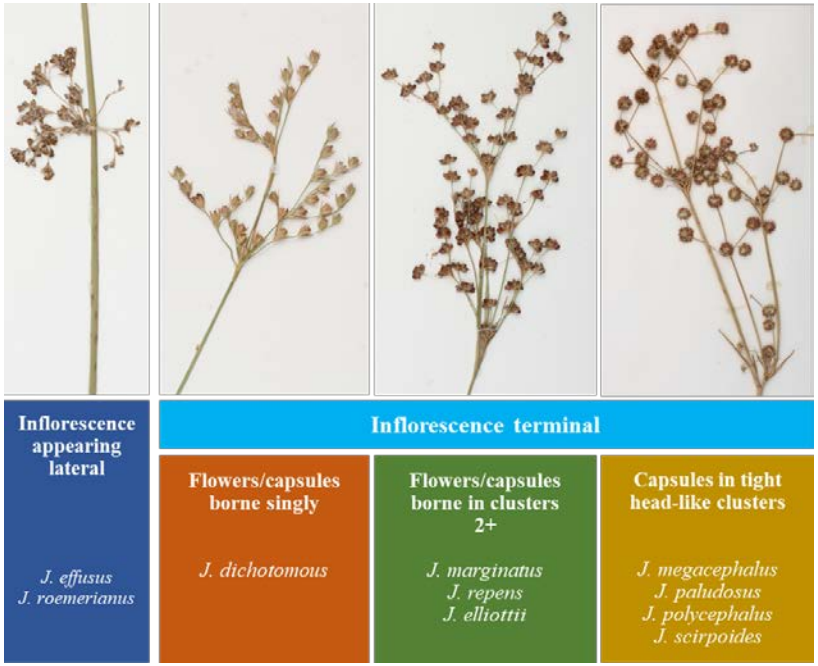
2. Juncus marginatus: flowers borne in glomerate clusters, blades are flat, not septate. Capsule abruptly tapered. This species is extremely variable.

3. Juncus scirpoides: flowers borne in congested, headlike lobed clusters. Leaves round, sheath closed. Found across a wide range of habitats.

4. Juncus megacephalus: Flowers borne in congested, headlike spherical clusters. Leaves round, sheath closed.

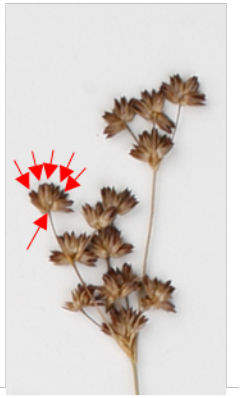
5. Juncus paludosus: is an endemic first identified in Florida in 2008. Superficially similar to *J. polycephalus*, but more closely related to *J. megacephalus*. Distinguished form the former by having blades of the lower leaves laterally flattened, from the latter by having > 25 heads.

6. Juncus polycephalus: Similar in appearance to *J. paludosus.* See description above.



Artificial Identification Key

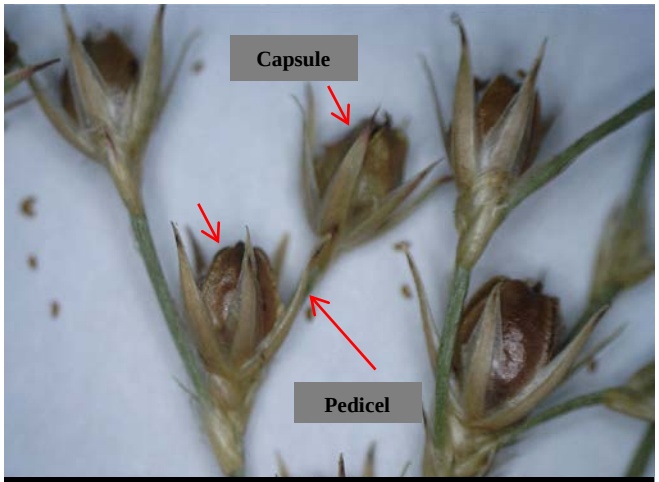
Artificial Key to the Subgenera			Subgenera	Species
Flowers borne singly	Inflorescence appearing lateral	Basal leaves without blades	Genuini	*J. effusus*
		Basal leaves with blades (shortened)	Poiophylli	*J. coriaceus*
	Inflorescence appearing terminal		Poiophylli	*J. bufonius*
				J. dichotomous
				J. tenuis
Flowers borne in heads, clusters or glomerules	Inflorescence appearing lateral		Juncus	*J. roemerianus*
	Inflorescence appearing terminal	Leaves flat	Graminifolii	*J. marginatus*
				J. repens
		Leaves septate and terete	Septati	*J. acuminatus*
				J. diffusissimus
				J. elliottii
				J. megacephalus
				J. paludosus
				J. polycephalus



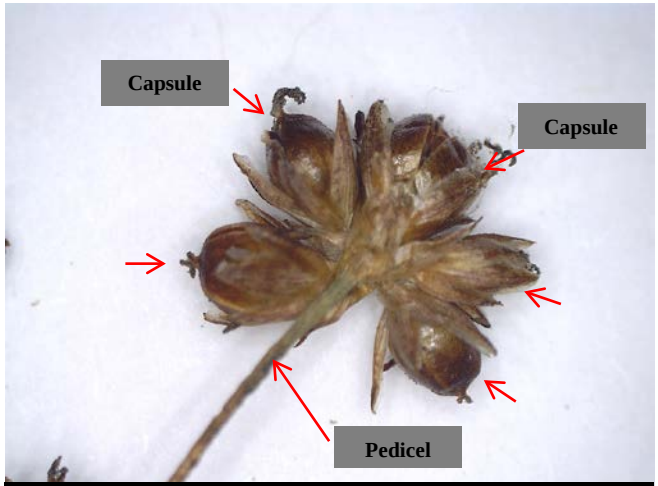
Artificial Key to the Common Rushes of Florida

1. Inflorescence appearing lateral				
	3. Plant growing in saline/coastal environment (salt marsh) ..... *J. roemerianus*			
	3. Plant growing in freshwater environment	4. Sheaths, at least some, with elongate blades, capsule subglobose ..... *J. coriaceus*		
		4. Sheaths without blades, capsule triangular ..... *J. effusus*		
2. Inflorescence appearing terminal				
	5. Inflorescence branching, open or in congested glomerules, but not in head-like, tight clusters	6. Flowers borne singly	7. Inflorescence more than half the height of the plant, plant to 30cm tall ..... *J. bufonius*	
			7. Inflorescence < ½ the height of the plant, plant > 35cm tall ..... *J. dichotomous*	
		6. Flowers borne in clusters 2+	8. Leaf blades not septate	9. Stems creeping, matt forming in shallow water ..... *J. repens*
				9. Stems erect with a hard base ..... *J. marginatus*
			8. Leaf blades septate, often round	10. Capsules much longer than the perianth segments ..... *J. diffusissimus*
				10. Capsule equaling or only slightly exceeding the perianth segments — 11. Perianth segments 3-4mm ..... *J. acuminatus*
				11. Perianth segments < 3mm ..... *J. elliottii*
	5. Inflorescence a tight head-like cluster (globose, subglobose)	12. Lower leaves flattened	13. Valves of the capsule remaining united at the tips, seeds lance elliptic to narrowly elliptic, asymmetrical ..... *J. polycephalos*	
			13. Valves of the capsule free, seeds broadly elliptic, symmetrical ..... *J. validus*	
		12. Lower leaves round/terete	14. Culms 4-8mm wide (near the base), plants >80cm tall, inflorescence with 25+ heads ..... *J. paludosus*	
			14. Culms 1-3mm wide, <80cm tall, <25heads	15. Heads spherical (round) ..... *J. megacephalus*
				15. Heads usually lobed ..... *J. scirpoides*

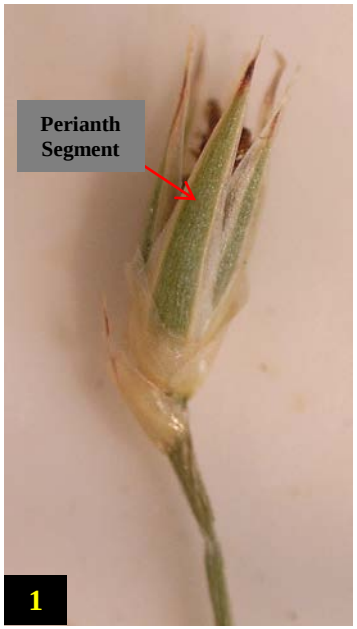
JUNCACEAE – Morphological Features

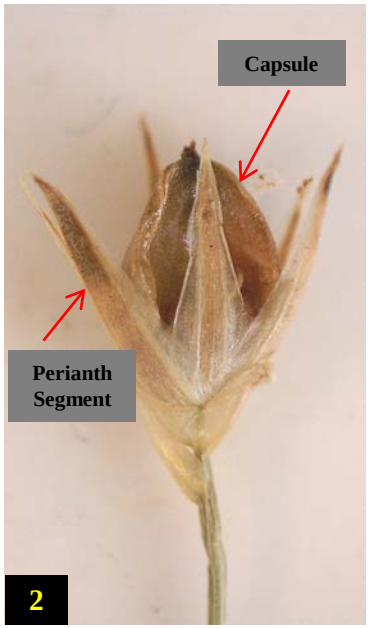


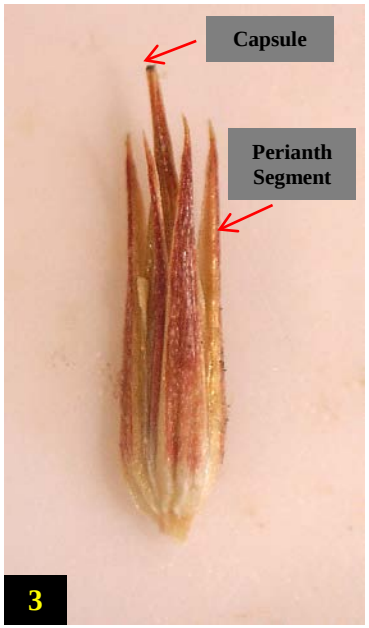
Flowers borne singly (one pedicel – one capsule/flower)

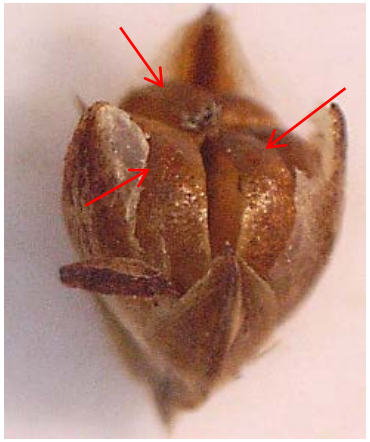


Flowers borne in clusters (one pedicel – many capsules/flowers)

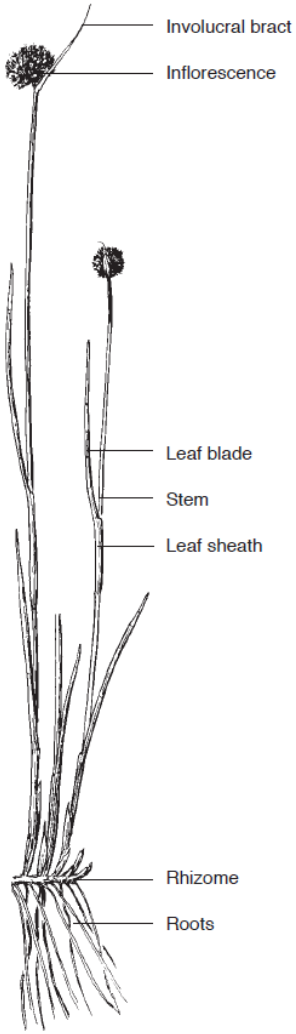


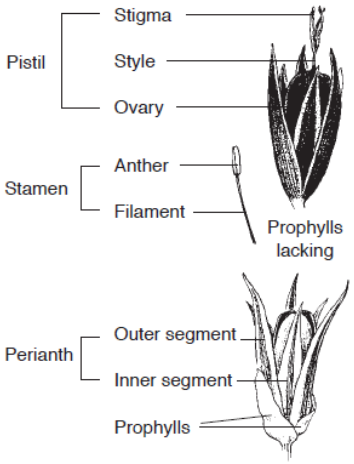


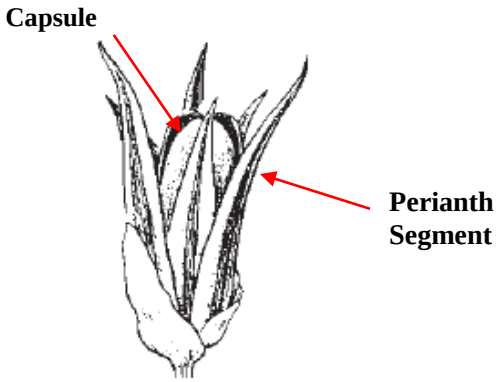




Morphology







A. Capsule oblong-ovoid, apex blunt, slightly triquetrous. Perianth segments broadly lanceolate, margins membranous, apices subulate. Prophylls present.

B. Capsule cylindric-ellipsoid, apex obtuse (rounded). Perianth segments: inner-shorter, obtuse; outer-longer, acute.

C. Capsule cylindric-triquetrous, apex acute. Perianth segments narrowly lanceolate, apices acuminate.

D. Capsule trigonous-cylindric, apex obtuse mucronate. Perianth segments oblong-lanceolate, apices acute.

E. Capsule oblong-ovoid, apex obtuse-retuse. Perianth segments broadly lanceolate, apices obtuse to acute.

F. Capsule prismatic-conic, apex tapered. Perianth segments narrowly lanceolate, apices acuminate.

JUNCACEAE – INFLORESCENCE TYPES

Inflorescence appearing lateral

Juncus effusus
Juncus roemerianus

Inflorescence appearing terminal, branching, flowers borne singly

Juncus dichotomous

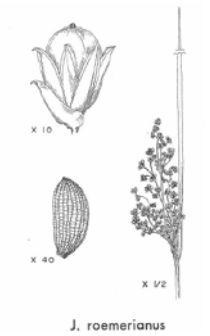
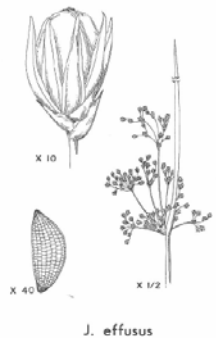
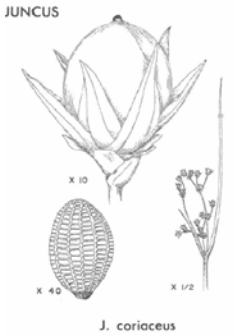
Inflorescence appearing terminal, branching, flowers borne 2+ clusters

Juncus marginatus
Juncus repens
Juncus elliottii

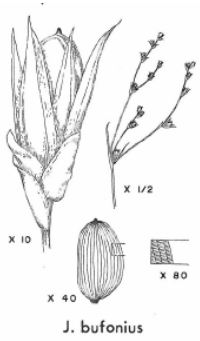
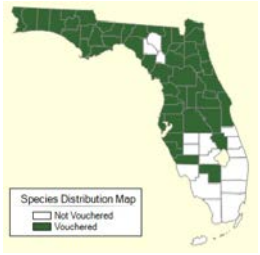
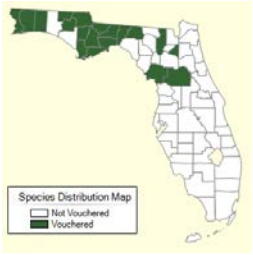
Inflorescence appearing terminal, in tight head-like clusters

Juncus megacephalus
Juncus paludosus
Juncus polycephalus
Juncus scirpoides

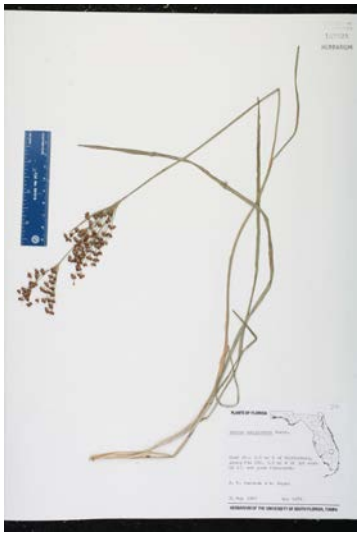
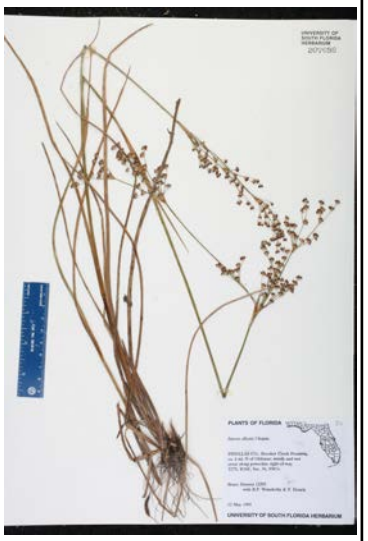
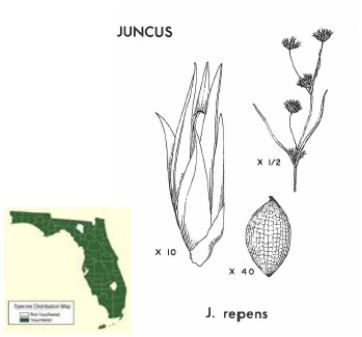
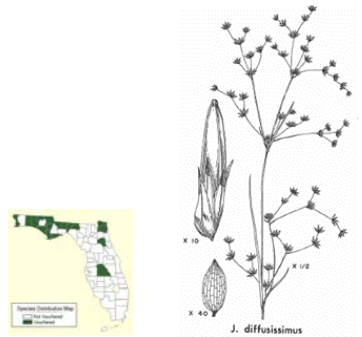
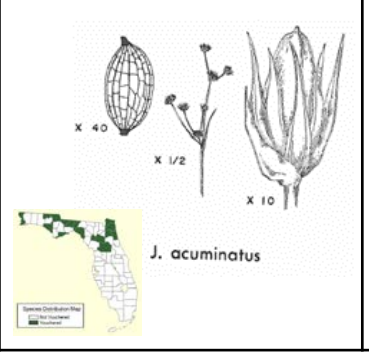
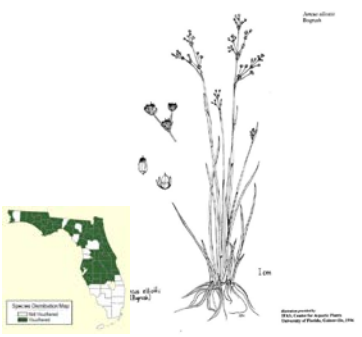
Inflorescence appearing lateral

Juncus roemerianus	*Juncus effusus*	*Juncus coriaceus*
		
Description: Large, stout plant growing in saline/brackish wetlands(saltmarshes). Foliage turning dark brown.	**Description:** Freshwater wetlands and pastures; much larger than *J. coriaceus*; Sheaths without blades. Capsules triangular.	**Description:** Freshwater wetlands. Sheaths with blades. Capsules subglobose or spherical.
  J. roemerianus	  J. effusus	  J. coriaceus

Inflorescence appearing terminal, flowers borne singly

Juncus bufonius	*Juncus dichotomous*	*Juncus tenuis*
		
Description: Small annual, rarely more than 30 cm tall. Inflorescence typically more than ½ the size of the plant.	**Description:** Perennial with rhizomes. Usually > 35 cm tall (to 1 meter). Blades terete, channeled or flat.	**Description:** Perennial with basal shorts forming small tufts or tussocks. Blades sometimes reduced or absent. When present, blades flat or involute.
 		 

Inflorescence appearing terminal, branching, flowers borne in 2+ clusters

Juncus repens	*Juncus marginatus*	*Juncus diffusisimus*	*Juncus acuminatus*	*Juncus elliottii*
				
Description: J. repens and marginatus are the only two species with flat grass-like leaves. Unlike J. marginatus, species has creeping stems and often forms mats.	**Description:** Perennial, sometimes rhizomatous Stems erect. Plant often growing in acidic or sandy soil shorelines. Leaves basal, flat, auriculate. Very variable in appearance.	**Description:** Perennial cespitose. Leaves basal and cauline, terete or round and septate. Inflorescence branched (diffuse). Capsules much longer than perianth segments.	**Description:** Perennial caespitose. Leaves basal and cauline, terete. Capsules equaling or only slightly exceeding perianth bristles. Perianth segments 3-4mm.	Description: Perennial, caespitose. Leaves basal and cauline, terete. Capsules equaling or only slightly exceeding perianth segments. Perianth segments <3mm.
				

Inflorescence appearing terminal, branching, flowers in tight, head-like clusters

Juncus polycephalus	*Juncus validus*	*Juncus megacephalus*	*Juncus scirpoides*
			
Description: Perennial, cespitose. Leaves basal, somewhat flattened. Heads > 12mm in diameter. Capsule tips fused.	**Description:** Perennial, usually rhizomatous Culms round or flat Leaves mostly basal, somewhat flattened sheaths fused. Capsule valves free	**Description:** Perennial, cespitose. Leaves basal, somewhat flattened. Heads > 12mm in diameter. Capsule tips fused	**Description:** Rhizomatous perennial. Culms round or flat. Leaves mostly basal, somewhat flattened sheaths fused. Capsule valves free.