



A New Rush Species Endemic to the Altamaha Grit of Georgia

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Juncus Linnaeus (Juncaceae)

- Widespread genus of ca. 315 species
- Primarily of wetland habitats

Juncus section *Ozophyllum* Dumort.

- The most diverse section of the genus
 - ca. 84 species, including 32 in N America (Brooks & Clements 2000, Kirschner 2002)
- Section most diverse in e US, sw Europe, Asia
- Recent description of two new species from the se US.
 - *J. fascinatus* (M.C. Johnston) W.M. Knapp (2014)
 - *J. paludosus* E.L Bridges & Orzell (2008)

***Juncus* sp. nov.?**

- 2014: Carter observed and collected vouchers in Coffee County, Georgia.
- 2015: Suspecting it might be an undescribed species, Carter included it in a preliminary report at ASB.
- Subsequently, material was sent to Wes Knapp for critical examination, and he confirmed that it was an undescribed species.

Taxonomy

Juncus snowii W.M. Knapp &
J.R. Carter, **sp. nov.**

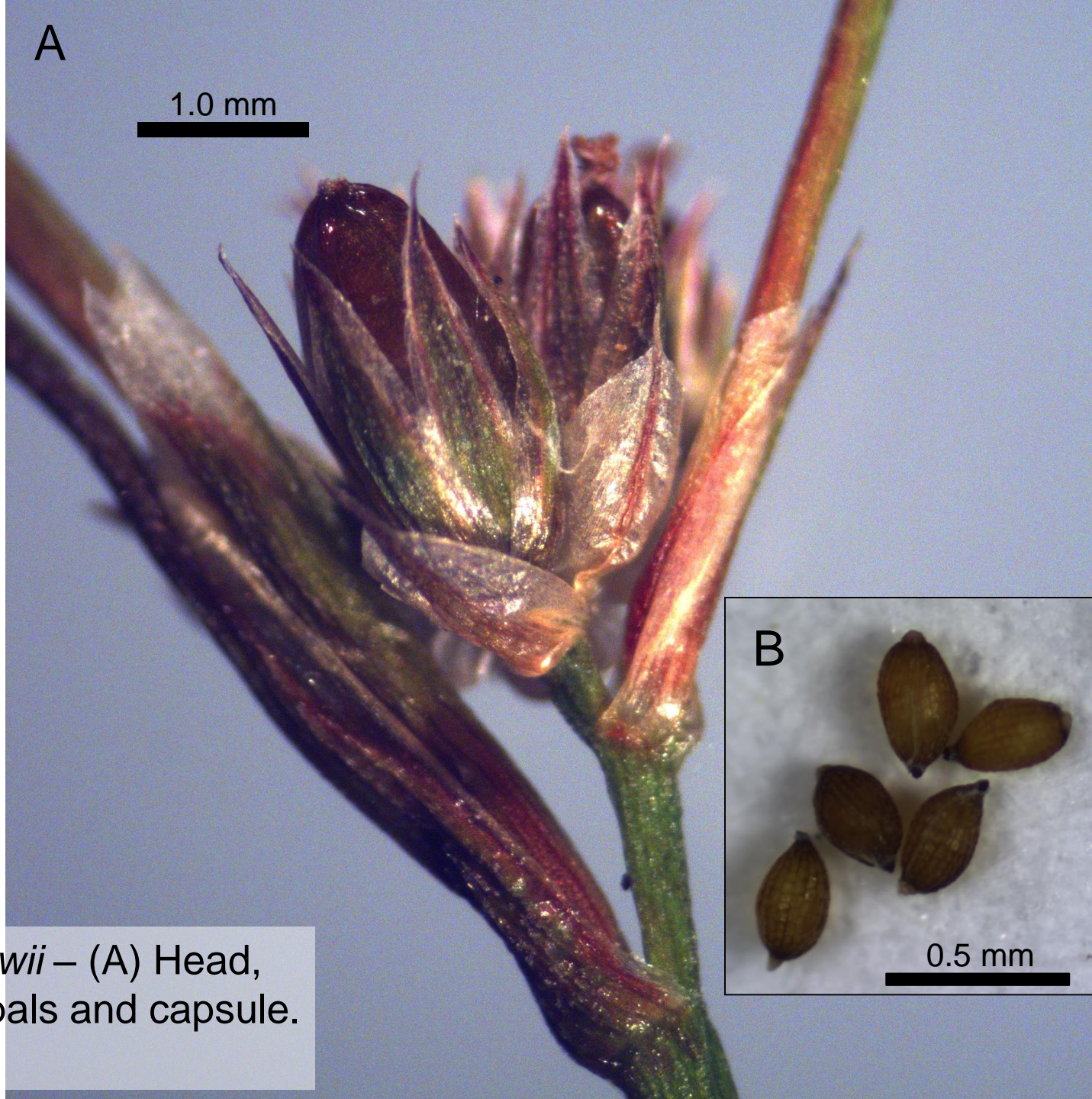
Diagnosis



Juncus snowii
Diminutive annual

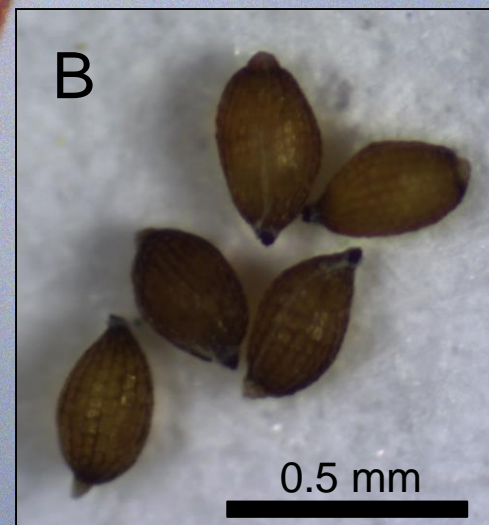
A

1.0 mm



B

0.5 mm



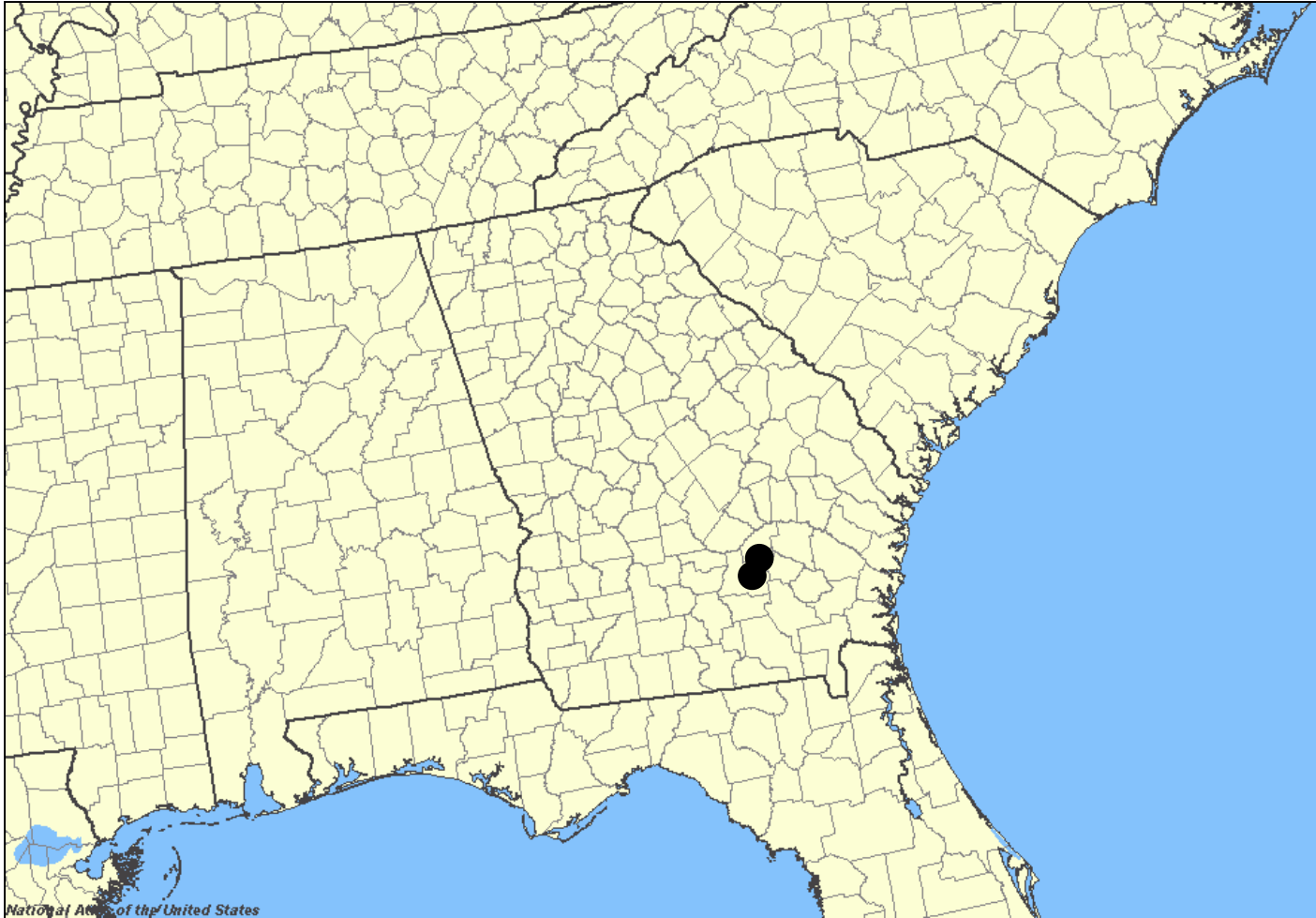
Juncus snowii – (A) Head, showing tepals and capsule. (B) Seeds

Diagnosis

Characters distinguishing *Juncus snowii* from similar species. Measurements in mm, unless explicitly stated.

	<i>J. acuminatus</i>	<i>J. debilis</i>	<i>J. elliotii</i>	<i>J. nodatus</i>	<i>J. snowii</i>
Life History	Perennial	Perennial	Perennial	Perennial	Annual
Capsule Color	Light Brown	Light Brown	Chestnut Brown	Light Brown	Light Brown
Capsule Length	2.8–3.5	2.8–4.2	2.4–2.8	1.9–2.5	2.4–2.5
Culm Height	10–80 cm	10–25 cm	30–90 cm	30–100 cm	7.0–27.0 cm
Heads per culm	5–20	3–50	40–100	30–250	1–5
Leaf Septa	Faint bands	Faint bands	Faint bands	Prominent rings	Faint bands
Root Tubers	Absent	Absent	Present	Absent	Absent
Tepal Length	2.6–3.6	2.0–2.5	2.4–2.9	1.7–2.2	1.9–2.1

Distribution



1.0 km

Burkett's Ferry Rd

22984

Jeff Davis
County

Coffee
County

107

McRae Hwy

22650 21663

22652

Broxton Rocks
Preserve

23161

23144

297

268

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Google Earth

21663

Rock Creek Rd

176

Broxton Rocks Preserve
Coffee County, Georgia

100 m

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Rocky Creek Falls
Broxton Rocks Preserve
Coffee County, Georgia

Elliottia racemosa Muhl. ex Elliott
Marshallia ramosa Beadle & Boynt.
Nolina georgiana Michx.
Penstemon dissectus Elliott
Portulaca biloba Urb.



...as well as several undescribed taxa

Isoetes "snowii"



Isoetes "snowii"



Oxalis "asynchrone"

Lilium sp. nov.













Juncus snowii W.M. Knapp & J.R. Carter, **sp. nov.**

We are delighted to name this new species in honor of Frankie Snow, indefatigable biologist who has devoted much of his life to study of the biota and natural history of Altamaha grit outcrops, especially those in vicinity of Broxton Rocks.

Frankie Snow photographing *Juncus snowii*
at Broxton Rocks Nature Preserve



**KEY TO MORPHOLOGICALLY SIMILAR SPECIES OF SECTION OZOPHYLLUM
(ADAPTED FROM SORRIE & KNAPP *in* WEAKLEY 2015)**

Key E

- 1 Mature capsules 2 mm or more longer than perianth, 4.0–5.2 mm long *J. diffusissimus*
- 1 Mature capsules < 1.5 mm longer than perianth, or subequal
 - 2 Stamens 6
 - 3 Proximal culm leaf overtopping inflorescence; culms well-spaced along creeping rhizomes; plants often exceed 8 dm tall..... *J. militaris*
 - 3 Proximal culm leaf shorter than inflorescence; plants cespitose; plants < 8 dm tall
 - 4 Mature capsules slightly shorter than to slightly longer than perianth (< 0.5 mm longer); perianth 2.6–3.9 mm long; inflorescence 4–16 cm long..... *J. acuminatus*
 - 4 Mature capsules exceeding perianth by about 1 mm (> 0.5 mm longer); perianth 1.7–3.0 mm long; inflorescence 2–8 cm long *J. articulatus*
 - 2 Stamens 3
 - 5 Mature capsules about 1/3 longer than perianth (roughly 1–1.5 mm longer) ... *J. debilis*
 - 5 Mature capsules equaling or barely exceeding perianth.
 - 6 Heads 1-50; capsules 2.4–3.6 mm long
 - 7. Perennial, capsules 2.8–3.6 mm long, tepals 2.6–3.6 mm long.. *J. acuminatus*
 - 7. Annual, capsules 2.4–2.5 mm long, tepals 1.9–2.3 mm long *J. snowii*
 - 6 Heads 30-250; capsules 1.9-2.9 mm long
 - 7 Capsules deep chestnut brown; roots with terminal tubers; inner tepals usually > 2.4 mm long *J. elliottii*
 - 7 Capsules straw colored; roots without terminal tubers; inner tepals usually 1.7–2.3 mm long *J. nodatus*

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