

BLACK NEEDLERUSH

Juncus roemerianus

Habitat: *Juncus roemerianus* (black needlerush) is found in areas of higher elevation of salt marshes in tidal creeks, along the shoreline, and on ridges where there is a decrease in salinity. It is distributed along the Atlantic coast from New Jersey to Florida and extending through the Gulf of Mexico from Florida to Texas.

Characteristics: Leaves are black/gray/greenish in color and have very sharp points. They grow between 1 foot in higher saline (salt) areas to 7 feet in height in lower saline areas.

Role in the Marsh: *Juncus* provides shoreline protection against erosion. Besides helping to provide a stable marsh these plants also improve ecosystem health by filtering suspended solids in the water. *Juncus* aides in oxidation of the soil which helps make the marsh a highly productive environment for many other plants and animals.



Food and Shelter: Seeds from *Juncus* are used by a wide variety of mammals like muskrats, nutria, rice rat, the marsh rabbit, and many species of waterfowl. Black needlerush also serves as a crucial habitat for the long billed marsh wren, clapper rail, and the seaside sparrow which is pictured in the center photo.

Adaptations: Salt marshes can be very tough environment to live in. *Juncus* is one of the few plants that are adapted to the harsh conditions of the marsh. This plant has the adaptive capabilities to handle anaerobic conditions (no oxygen), a high tolerance to calcium carbonate, and wide ranges of pH fluctuations that occur in the marsh.

Juncus and Oil: In recent studies scientists have found black needlerush is able to reduce concentrations of petroleum hydrocarbons when exposed to diesel fuel under the right conditions. This could aide in reducing the harmful effects that oil spills can impose on salt marsh ecosystems.

References:

Gulf Coast Marine Life Center-
www.gcmlc.com/species-plants-black_needlerush
USDA NRCS Plant Materials Program-www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS
Tybee Island Marine Science Center-
www.tybeemarinescience.org/naturalist/black-needlerush
U.S. Forest Service, *Juncus roemerianus*-
www.fs.fed.us/database/feis/plants/graminoid/junroe/all.html



Lumcon
8124 Hwy 56, Chauvin, LA 70344
www.lumcon.edu

Photo Credit:

Top Photo:

Stephen F. Austin State University-
src.sfasu.edu/~jvk/GulfCoastPlants/Gulf_Coast_Plants/Juncaceae/Juncaceae_Center_Photo

Coastal Waters Consortium- gallery.cwc.lumcon.edu/index.php/Seaside-Sparrow-Research/2012?page=2

Bottom Photo: Hannah Sarver