

# SMOOTH CORDGRASS

*Spartina alterniflora*

**Habitat:** *Spartina alterniflora* (smooth cordgrass) is commonly found in salt marshes, tidal flats, and on beaches. It is widely distributed along the Atlantic coast from Nova Scotia to Florida and extending to the Gulf of Mexico from Florida to Texas.

**Characteristics:** It is a grass that can grow up to 7 feet tall in the low marsh and up to 3 feet in high marsh areas. *Spartina* is green in color in the spring and summer. The plants then turn a yellowish/light brown color in the fall and winter.

**Salt, salt, salt!** Salt marshes can be extremely harsh environments. Daily flooding and exposure due to tides, and drastic changes in salinity and temperature makes it a challenge for most plants to survive. *Spartina* is one of the few plants that can handle those extreme changes. It has an amazing adaptation where the plant can secrete salt from its leaves so it can handle high salt concentrations.

The center photo to your right shows one of our past LUMCON Estuarine Awareness and Discovery (LEAD) campers tasting the salt on a blade of *Spartina*..



**Primary Producers:** Most plants convert sunlight into energy and food through photosynthesis.. *Spartina* in salt marshes supply, through the process of photosynthesis, supply the soil with oxygen and nutrients and are the base of the food chain. Decomposing cordgrass also provides rich organic material used as food sources for many organisms like fiddler crabs, periwinkle snails, and ribbed mussels.

**Hold it together!** Not only is *Spartina* a primary producer within the salt marsh but it also holds the entire marsh together! These plants have an extensive root system that traps and holds the soil that forms the marsh. The ability of the roots of this plant to hold the soils together also helps prevent erosion along the edges. Because *Spartina* creates a stable marsh system we have natural buffers from storms and tidal surges.

**Interesting Fact:** Smooth cordgrass not only provides habitat for many fishes, crustaceans, and bivalves but also birds. In Louisiana more than 5 million birds use salt marshes as a stop-over site while migrating from South America to Canada each year. The reason so many of them rely on salt marshes is because *Spartina* provides protection, shelter, and because they make such a productive ecosystem, and a diverse buffet of organisms for them to eat.



Photo Credit:

Top and Bottom Photos:

Lumcon Photo Gallery- [gallery.lumcon.edu/index.php/LEAD-Camp-2014-Session-1](http://gallery.lumcon.edu/index.php/LEAD-Camp-2014-Session-1)

Center Photo: Murt Conover