

SMOOTH CORDGRASS

Spartina alterniflora

A salt marsh is a coastal wetland that serves as the transition zone between land and salt water. The dominant salt marsh plant in southeastern estuaries is *Spartina alterniflora*. This amazing plant can tolerate being covered by salt water twice a day.

Salt marsh distribution



Leaf surface
Spartina can excrete salt from glands on its leaves which allows it to survive in salt water. Algae on the leaf's surface provides food for grazers, such as the periwinkle snail.

The most common salt marsh plant species in the Southeast provides us with a wealth of benefits!

Habitat

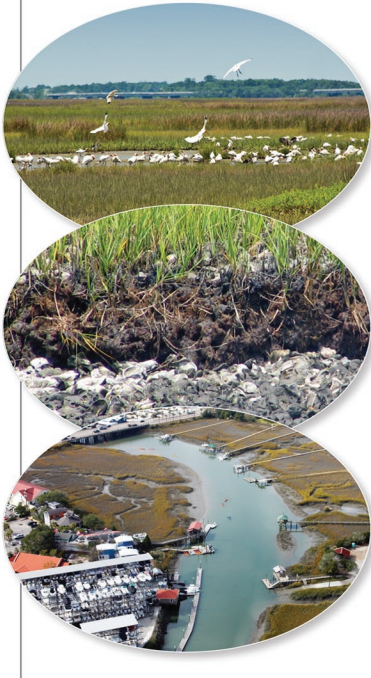
- Salt marsh is the second-most productive ecosystem on the planet. Its productivity is fueled by the recycling of nutrients, largely from *Spartina alterniflora*. The plant dies in the fall, forms wrack, and breaks down (decomposes) to release its nutrients back into the system.
- Over 75% of the commercially important species in the Southeast use the salt marsh during their life cycle.
- A number of animals such as shrimp, crabs, fish, and birds use the marsh as nursery habitat, feeding grounds, and resting areas.

Erosion control

- *Spartina* rhizomes (underground stems) and root mats stabilize the marsh mud, protecting against erosion.
- *Spartina* stalks break up wave energy before it reaches the land, lessening the impacts of storms.
- *Spartina* stalks also trap sediment which helps protect against sea level rise.

Clean water

- Salt marshes filter pollutants from the water column that enter our estuaries from non-point sources such as houses and roads.
- *Spartina* helps remove pollutants from the water, such as pesticides, heavy metals, and nutrients.
- Marsh sediment can act as a sponge, burying and absorbing pollutants, thus minimizing the toxic effects.



Seasons in the salt marsh



Being a perennial plant, *Spartina* in the salt marsh is an excellent indicator of the changing seasons. In the spring, new *Spartina* plants grow from seeds and rhizomes. In the summer, the marsh takes on its distinct bright green color.

By fall, small white flowers will have developed along the upper stalk, becoming a seed head. Leaves then turn a golden brown color and the seeds disperse. By mid-winter, dead *Spartina* breaks off and accumulates as mats of detritus ("wrack") on the surface of the mud.

