

Common High Grass Species



Phragmites australis
Common Reed



Spartina alterniflora
(only low marsh)
Cord Grass



Spartina patens
Sea Hay



Juncus gerardii
Black Grass



Typha angustifolia/latifolia
Cattail



Puccinellia maritima
Seashore Alkali Grass



Distichlis spicata
Spike/salt grass



Aster tenuifolius
Perennial Salt Marsh Aster



Agalinis maritime
Salt Marsh Gerardia



Limonium nashii
Sea Lavender



Triglochin maritimum
Seaside Arrow Grass



Solidago sempervirens
Seaside Goldenrod

Salt Marsh Morphology

Low Marsh: The low marsh is located along the seaward edge of the salt marsh. It is usually flooded at every tide and exposed during low tide. It tends to occur as a narrow band along creeks and ditches, whereas the high marsh is more expansive and is flooded less frequently. The predominant plant species found in the low marsh is the tall form of *Spartina alterniflora* (smooth cordgrass). This species can reach a height of six feet and is very tolerant of daily flooding and exposure.

High Marsh: The high marsh lies between the low marsh and the marsh's upland border. It can be very expansive in some areas, sometimes extending hundreds of yards inland from the low marsh area. Soils in the high marsh are mostly saturated, and the high marsh is generally flooded only during higher than average high tides. Plant diversity is low (usually less than 25 species), with the dominant species being the grasses and rushes such as *Spartina patens* (salt hay grass), *Distichlis spicata* (spike grass), *Juncus gerardii* (black grass), and the short form of *Spartina alterniflora*. Other plant species commonly found in the high marsh are *Aster tenuifolius* (perennial salt marsh aster), and *Limonium nashii* (sea lavender).

Pool/Panne: Pannes are shallow depressions located within the high marsh. They hold standing water and typically dry out during extended dry periods, such as at the end of the summer season. Salinity can reach extremely high concentrations due to evaporation and lack of flushing. Only the most salt-tolerant species can exist at panne edges including *Salicornia* spp. (glassworts), *Plantago maritima* (seaside plantain), and the short form of *Spartina alterniflora*, as well as some blue-green algae. There are some larger, deeper, and more permanent depressions (called pools) in the high marsh that can be vegetated with submerged aquatic species such as *Ruppia maritima* (widgeon grass) and are inhabited by salt marsh fish. Both pools and pannes (when not entirely dried out to cracked dry mud) are valuable habitat for migratory water birds.

Marsh Border/Upland Edge: The marsh border is located at the salt marsh's upland edge and other isolated areas on the marsh where elevations are slightly above the high marsh. The marsh border is usually only flooded at extreme astronomical tides and under irregular conditions such as storm surges or wind-driven tidal inundations, and does not experience waterlogged conditions or severe salt stress. A high diversity of herbs, shrubs, and even trees exists in the marsh border. *Iva frutescens* (marsh elder), *Myrica gale* (sweet gale), *Solidago sempervirens* (seaside goldenrod), and *Panicum virgatum* (switchgrass) are just some of the many marsh border plants.

