

Plants of Maryland's Salt Marshes

According to the Chesapeake Bay Program, there are approximately 282,290 acres of tidal wetlands bordering the Chesapeake Bay. Add another 35,000 acres of wetlands along Maryland's Coastal Bays, and you have over 300,000 acres of tidal wetlands in Maryland. Salt marshes are a large part of this acreage. Erik Vance describes the salt marsh in his article "The Place Between" as a bridge, "...between aquatic and terrestrial ecosystems, sustaining life forms that can't live in either." From Saltmarsh Sparrows to Sea Lavender, the salt marshes of the Chesapeake Bay and Maryland's Coastal Bays contain creatures and plants that one cannot find anywhere else in the state.

In basic terms a salt marsh may be broken down into two different areas: low salt marsh and high salt marsh. The low salt marsh is inundated on every tide, while the high marsh is only occasionally flooded during higher tides. The dominant plant of the low salt marsh is Smooth Cordgrass (*Sporobolus alterniflorus*). The roots of Smooth Cordgrass are the cement of the Chesapeake Bay's salt marshes, and it is considered the first line of defense against erosion.

Plant diversity is higher in the high salt marsh where Saltmeadow Cordgrass (*Sporobolus pumilus*) is an important component. This delicate, wiry grass forms large patches, called 'salt meadows', that often have a distinctive windblown appearance. The rare Eastern Black Rail (*Laterallus jamaicensis*) depends on salt meadows for breeding grounds.

by JIM BRIGHTON

Photos by Jim Brighton



Jim Brighton (from Facebook)

Black Needle Rush (*Juncus roemerianus*) is another dominant plant of Maryland's salt marshes. This tall rigid rush grows in waist-high clumps interspersed among the salt meadows of Saltmeadow Cordgrass. Marsh Wrens (*Cistothorus palustris*) and Virginia Rails (*Rallus limicola*) depend on large stands of Black Needle Rush for nesting habitat.

While Smooth Cordgrass, Saltmeadow Cordgrass, and Black Needle Rush are three of the most commonly encountered plants of the salt marsh, a careful search will reveal many other plant species. The sedge family (*Cyperaceae*) is represented by Common Threesquare (*Schoenoplectus pungens*), Chairmaker's Bulrush (*Schoenoplectus americanus*), and Sturdy Bulrush (*Bulboschoenus robustus*). These three species can be very common in the high salt marsh. In the autumn, Marsh Fimbrity (*Fimbristylis castanea*) can easily be found growing on the edges of salt meadows, while the Long-bracted Sedge (*Carex extensa*), native to Eurasia,

is becoming more common in many of Maryland's salt marshes.

Big Cordgrass (*Sporobolus cynosuroides*) is the tallest native grass found in the salt marsh. Unfortunately, populations of Big Cordgrass are often smothered by the highly invasive non-native Common Reed (*Phragmites australis* ssp. *australis*), introduced from Europe. These two species can appear similar, but an inspection of the inflorescence will easily differentiate them. The inflorescence of Big Cordgrass is much less feathery and dense than the invasive Phragmites. Another common native grass found in the salt marsh is Seashore Saltgrass (*Distichlis spicata*). This small grass grows in drier areas of the salt marsh and is the host plant for the Saltmarsh Skipper butterfly (*Panoquina panoquin*).

For plant enthusiasts, autumn is the best time to visit Maryland's salt marshes. This is when the marsh bursts into bloom. Seapink (*Sabatia stellaris*) is our salt marsh gentian and one of the showiest flowers of the marsh. It is most often found

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Truitt's Landing

growing in salt meadows. Seapink flowers can be pink or white, and most Maryland populations have both colors, though the pink flowers seem to dominate.

Sea Lavender (*Limonium carolinianum*) is another common plant of the salt marsh and can be found blooming from late August until the first frost. A large patch of wispy Sea Lavender can make the usually monochrome salt marsh turn brilliant hues of purple and blue. The plant is often harvested, dried, and used for wreaths, flower arrangements, and other decorative purposes. However, Sea Lavender grows very slowly and picking plants can seriously affect populations.

While few shrubs call the salt marsh home, Marsh Elder (*Iva frutescens*) and Groundselbush (*Baccharis halimifolia*) both thrive in this salty environment. These two members of the Aster family are often found along ditches and other waterways that snake through the marsh. While appearing similar, a close look will reveal that Marsh Elder has opposite leaves and Groundselbush has alternate leaves. This is one of the easier ways to tell the two species apart.

If you would like to visit one of the largest Maryland salt marshes, I recommend driving Elliott Island Road in Dorchester County. This road winds

through miles of salt marshes south of Vienna. Deal Island Wildlife Management Area in Somerset County can also be easily explored by car. Driving down Riley Roberts Road or Game Reserve Road will give you amazing views of the salt marsh. To explore the salt marshes of Maryland's Coastal Bays, I recommend driving Truitt's Landing Road or George's Island Road in Worcester County.

Some of the native plants you may encounter in Maryland's salt marshes are listed below. More images are available at marylandbiodiversity.com.

Grass family *Poaceae*

Seashore Saltgrass - *Distichlis spicata*

Smooth Cordgrass - *Sporobolus alterniflorus*

Big Cordgrass - *Sporobolus cynosuroides*

Saltmeadow Cordgrass - *Sporobolus pumilus*

Sedge family *Cyperaceae*

Sturdy Bulrush - *Bolboschoenus robustus*

Dwarf Spikerush - *Eleocharis parvula*

Marsh Fimbry - *Fimbristylis castanea*

Chairmaker's Bulrush - *Schoenoplectus americanus*

Common Threesquare - *Schoenoplectus pungens*

Rush family *Juncaceae*

Saltmeadow Rush - *Juncus gerardii*

Black Needle Rush - *Juncus roemerianus*

Amaranth family *Amaranthaceae*

Perennial Glasswort - *Salicornia ambigua*

Dwarf Glasswort - *Salicornia bigelovii*

Virginia Glasswort - *Salicornia virginica*

Annual Seepweed - *Suaeda linearis*

Pink family *Caryophyllaceae*

Salt Sandspurry - *Spergularia marina*

Gentian family *Gentianaceae*

Seapink - *Sabatia stellaris*

Mallow family *Malvaceae*

Virginia Saltmarsh Mallow - *Kosteletzkya pentacarpos*

Leadwort family *Plumbaginaceae*

Sea Lavender - *Limonium carolinianum*

Broomrape family *Orobanchaceae*

Saltmarsh Gerardia - *Agalinis maritima*

Aster family *Asteraceae*

Groundselbush - *Baccharis halimifolia*

Marsh Elder - *Iva frutescens*

Marsh Fleabane - *Pluchea odorata*

Seaside Goldenrod - *Solidago sempervirens* var. *mexicana*

Seaside Goldenrod - *Solidago sempervirens* var. *sempervirens*

Eastern Annual Saltmarsh Aster - *Symphotrichum subulatum*

Perennial Saltmarsh Aster - *Symphotrichum tenuifolium*

Note: The well known genus *Spartina* was recently synonymized under *Sporobolus* and *Spartina patens* has been renamed *Sporobolus pumilus*.

Salt marsh at Smithville boat ramp



Marsh Fimbry, *Fimbristylis castanea*



Virginia Glasswort, *Salicornia virginica*



Per. Saltmarsh Aster, *Symphyotrichum tenuifolium*



Chairmaker's Bulrush, *Schoenoplectus americanus*



Seapink, *Sabatia stellaris*



Salt Sandspurry, *Spergularia marina*



Sea Lavender, *Limonium carolinianum*



Saltmarsh Gerardia, *Agalinis maritima*



Va. Saltmarsh Mallow, *Kosteletzkya pentacarpos*



Big Cordgrass, *Sporobolus cynosuroides*



Saltmeadow Cordgrass, *Sporobolus pumilus* (foreground)