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As you cross over the Bayway or the Causeway, you've probably noticed the salt marshes, composed of emergent wetland plants. But did you realize that there are plants living underneath the water? These plants, known as submerged aquatic vegetation (SAV), are a vital component of our Mobile Bay ecosystem.

Submerged plants, much like land-based plants, have roots, leaves, and stems. They reproduce by spreading seeds produced by underwater flowers, and by rhizomes, root-like structures that are buried beneath a sandy bottom and can sprout new leaves. Leaves of these plants look similar to grass blades, making them easily mistakable for seaweed, which is actually a type of algae.

Submerged plants play many important roles in an estuary like Mobile Bay. Just like the plants in your garden, SAV plants use the sun's energy to photosynthesize and produce oxygen that is then used by aquatic animals, including the shrimp, oysters, and fish we enjoy eating. The leaves of these plants provide the nursery of the estuary environment: a "hiding place" for young fish, shrimp, and crabs, and also provide food for these animals. In fact, some researchers estimate that as much as 90% of commercial and recreational fish spend some time of their lives in SAV beds.

SAV beds provide other benefits as well. Their roots hold sediment in place, preventing erosion, and their leaves and roots trap sediments from the water column, improving water clarity and the quality of the water.

Very little study has been made of the SAVs of Mobile Bay. However, SAVs are delicate and sensitive to extremes. They depend on sunlight and sandy bottoms, both of which are affected by increased turbidity (sediments in the water column). Submerged plants are also sensitive to extreme increases in salinity, the amount of salt in the water,

and nutrients, usually associated with stormwater runoff of fertilizers from surrounding land. SAV beds can also be impacted by hurricanes and other storms.

Submerged aquatic vegetation is a valuable resource that plays many important roles ecologically, recreationally, and economically. SAVs are important nursery areas in estuaries, providing food, shelter, and water quality for aquatic animals, including fish, shrimp, and crabs. However, submerged plants are delicate and sensitive to human changes in the aquatic environment. You can learn more about the values of estuarine SAV beds from the Chesapeake Bay Program at [www.chesapeakebay.net](http://www.chesapeakebay.net).