

# Submerged Aquatic Vegetation of the Chesapeake Bay

The NRCS, through the National Plant Materials Center located in Beltsville, MD, is working with many species of Submerged Aquatic Vegetation, or SAV, which are important to restoration efforts in the Chesapeake Bay. This fact sheet includes just some of the SAV species common to the fresh and brackish waters of the Chesapeake Bay



**WILD CELERY** (*Vallisneria americana* Michx)

This perennial monocot has long slender leaves with a light green stripe down the center of the leaf. It is found throughout the Bay in fresh water but can tolerate salinities of up to 12-15 ppt. Wild celery stabilizes shorelines and tolerates wave action better than most SAV. It spreads vegetatively through turions, rhizomes, and seeds (male flowers produce pollen that when released at surface, fertilize the female flowers). The plants are excellent food for waterfowl and provide habitat for fish and invertebrates. *Vallisneria* has been used to monitor pollution in rivers.



**SOUTHERN NAIAD** (*Najas guadalupensis* (Spreng) Magnus)

Submerged annual monocots form dense mats of vegetation. Small flowers and fruits are almost entirely hidden at the leaf bases. Leaves are dark green to greenish purple, opposite or in whorls of three. Naiads grow primarily in freshwater streams, and freshwater to brackish tidal Bay tributaries. Southern naiad reproduces by seeds and fragmentation. Fragments can be seen floating at the water's surface. Pollination takes place underwater. *Najas* vegetation and seeds are consumed by waterfowl and in some cases are second only to wild rice as a food source.



**REDHEAD GRASS** (*Potamogeton perfoliatus* L.)

Redhead grass is a perennial SAV commonly found in fresh to brackish water of up to 20ppt salinity. It produces winter buds that allow it to establish itself vegetatively, while pollination occurs as spikes of tiny flowers emerge from leaf axils on ends of plant stems. Flower spikes extend above the water surface and the pollen is carried by wind. As fruits mature they sink below the surface where they release seeds. This SAV is an excellent food source for waterfowl.



**WATER STARGRASS** (*Heteranthera dubia* (Jacq.) MacMillan)

A perennial monocot with dark green leaves with small star-shaped yellow flowers that float or rise above the water surface. The plants grow in large, tangled rooted masses. Found in quiet bodies of water with salinities of up to 5 ppt. The plants spread both vegetatively through the roots, and through seed. Flowers that do not reach the water's surface remain closed and self-pollinate. The leaves are eaten by ducks and other waterfowl, and the plants provide habit for fish and invertebrates.



**COMMON WATERWEED** (*Elodea canadensis* Michx)

Perennial monocot with branching stems; narrow leaves in whorls of 3 at stem nodes, with whorls closer together at tips of plant. *Elodea* is found in fresh to brackish slow-moving or calcium-rich waters; their salinity tolerance is not well-documented. Male flowers rise on long stalks and split open, spreading pollen onto the water's surface where it drifts to fertilize female flowers. Ducks, beaver and muskrat consume this plant.