

Minimizing Incidents & Impacts

1. Familiarize yourself with local waters to avoid running aground. Seeing SAV means the water may be too shallow for boating and you should move away from shore. It helps to know your depth, draft and tidal stage and to use marked channels.



A dense mixed SAV population in the shallow waters of the Susquehanna Flats, MD. Photo by R. Thur, CRC.

2. If you must navigate through an SAV bed, trim your propeller up and proceed slowly. SAV can hide stumps and other obstructions that might damage your boat or engine.
3. Clear your propeller often of any entangled SAV to prevent your engine from clogging and over-heating.



Two men fishing from a skiff with the outboard motors tilted upwards. Photo by M. Evans.

4. Check the area for visible signs of SAV before dropping anchor, and avoid dragging your anchor or other items through vegetation.

SLOW DOWN, TRIM UP, GET OUT!

Finding Out More...

For more information about SAV in the Bay, visit:

MD Department of Natural Resources
www.dnr.state.md.us/bay/sav/

Virginia Institute of Marine Sciences
www.vims.edu/bio/sav/

Chesapeake Bay Program
www.chesapeakebay.net

CRC Freshwater SAV Partnership
www.chesapeakebay.org/partnershiphome.html



Seahorses find food and shelter in the dense eelgrass beds of the lower Chesapeake Bay. Photo by M. Naylor, MDDNR.

About This Brochure

This brochure is the result of a collaboration of the U.S. Army Environmental Command with the Chesapeake Research Consortium. Funding was provided by the Department of Defense Legacy Resource Management Program (www.dodlegacy.org), Project 07-363. CRC Publication 08-167.

Chesapeake Research Consortium

645 Contees Wharf Road

P.O. Box 28

Edgewater, MD 21037

410.798.1283 / 301.261.4500

www.chesapeake.org



Responsible Boating Near Submerged Aquatic Vegetation in the Chesapeake Bay



What is Submerged Aquatic Vegetation?

Submerged Aquatic Vegetation (SAV) is a group of underwater grasses that relies on buoyancy to support their stems and leaves and sunlight for energy. They flower and produce seeds either as annuals or perennials. SAV is *not* seaweed.

Why is SAV important to the Bay and to us?

- It provides nursery habitat, safe refuge, and food for fish, blue crabs, shellfish, and a wealth of other valuable Bay species.



A blue crab found in a handful of SAV. Photo by the Chesapeake Bay Program.

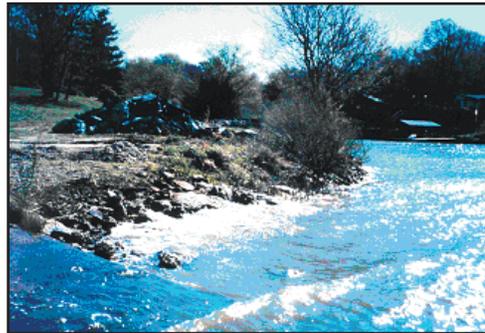
- It protects and stabilizes nearshore areas from erosion by reducing wave energy.
- It filters and traps sediments in the water column, which increases water clarity.
- It removes toxins and nutrients, such as nitrogen and phosphorus, from the water.
- It gives off oxygen, which helps keep other species (fish, crabs, oysters, etc.) healthy.
- It provides nutritious food (leaves, roots, seeds and attached fouling organisms) for native and migratory waterfowl, and smaller aquatic organisms that feed on decaying plants.



Widgeon grass had to be cut loose from this dinghy's outboard motor. Photo by K. Mountford.

What Impact Can Recreation Have on SAV?

- Large wakes or prop dredging can resuspend bottom sediments and reduce light penetration to the vegetation below and/or destabilize it.
- Because SAV provides refuge for blue crabs and many recreational and commercial fish species, any kind of activity that involves dragging items through an SAV bed can destroy their habitat. This includes anchoring, dredging, and trawling.
- Boating through vegetated areas may not only sever or uproot SAV, but could also result in entanglement of your propeller and/or clog your engine intakes, leading to overheating..



Removal of marsh grasses and SAV next to this boat ramp have added to erosion problems in the area. Photo by M. Hollinger, NOAA.

- The construction of boat ramps, piers, and lifts without consideration to bottom habitat can destroy healthy SAV beds and subject the adjacent shoreline to erosion problems.

Where does SAV grow?

SAV can typically be found in nearshore and shoal areas from about 3 to 6 feet deep, depending on water clarity and tides. It is less likely to be in areas continually impacted by waves, strong currents, or suspended sediments. SAV can grow in freshwater, brackish estuaries, or sea water.

Upper Bay SAV

Water stargrass



Wild celery



Naiad (southern)



Naiad (minor)*



Coontail



Hydrilla*



Eurasian watermilfoil*



*Denotes a non-native species.

Middle Bay SAV

Redhead grass



Widgeon grass



Lower Bay SAV

Eelgrass



Species photos from the Field Guide to the Submerged Aquatic Vegetation of the Chesapeake Bay by L.M. Hurley, 1992 (USFWS Chesapeake Bay Estuary Program, Annapolis, MD), and MD DNR.