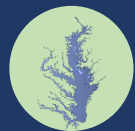




Monitoring Submerged Aquatic Vegetation in the Chesapeake Bay



~A Chesapeake Bay Program Partnership Endeavor~

CB
Sentinel
Site
Program for SAV

Chesapeake Bay
SAV Watchers

Chesapeake Bay-wide
Aerial SAV Survey

A 3-Tiered
Hierarchical
Integrated
and
Coordinated
Monitoring
Approach

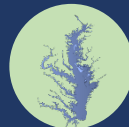
1 **Chesapeake Bay-wide Aerial SAV Survey:** characterizes SAV acreage and density. Useful for quantifying SAV habitat distribution and density throughout the Bay and its tributaries.

2 **Chesapeake Bay SAV Watchers:** monitors a limited number of SAV habitat characteristics at a large number of locations throughout the Bay and its tributaries. Useful for broad-scale condition assessment and for identifying and quantifying driver/response relationships.

3 **Chesapeake Bay Sentinel Site Program for SAV:** monitors multiple parameters in greater detail at ~20 locations throughout the Bay and its tributaries. Focuses on identifying causal relationships by intensively monitoring drivers of change, ecosystem responses, and ecological processes.



Program details



TIER 1

Chesapeake Bay-wide Aerial SAV Survey

The Chesapeake Bay-wide Aerial Survey is conducted by the Virginia Institute of Marine Science, takes place annually, and determines SAV acreage and density by interpreting imagery collected from fixed-wing aircraft. Imagery is collected throughout the summer growing season and corresponds with peak biomass in the four salinity zones. Maps of SAV beds, shapefiles, metadata, segment acreage tables, and reports are available on the Virginia Institute of Marine Science SAV website. This survey is useful for quantifying SAV habitat distribution and density throughout the Bay and its tributaries and determining and tracking progress towards Bay-wide and tributary-specific SAV restoration goals.

See <https://www.vims.edu/research/units/programs/sav/access/maps/index.php> for more information. **Parameters recorded:** SAV distribution and density



TIER 2

Chesapeake Bay SAV Watchers

The Chesapeake Bay SAV Watchers Program is a volunteer-based effort led by the Chesapeake Bay Program's SAV Workgroup. It incorporates Riverkeepers, watershed organizations, their volunteers, and individuals into the SAV monitoring effort and was designed to provide volunteer scientists with an engaging and educational experience while also generating species composition and other data for Bay scientists and managers. Data are collected by trained volunteers throughout the summer but primarily during peak biomass. These data are useful for ground-truthing the Bay-wide aerial survey, for broad-scale resource assessment, and for identifying and quantifying driver/response relationships. See www.chesapeakebaysavwatchers.com for more information.

Parameters recorded: SAV species composition and total density, presence/absence of seeds, flowers, epiphytes, and filamentous macroalgae, indications of human impacts, water column and Secchi depth, sediment type, and shoreline type.



TIER 3

Chesapeake Bay Sentinel Site Program for SAV

The Chesapeake Bay Sentinel Site Program for SAV is a multi-institutional effort led by the Chesapeake Bay Program's SAV Workgroup. Site "adopters" include state, local, and federal agencies, universities and academic institutions, and Riverkeeper and other watershed organizations. Long-term sentinel site data are important to identifying causal relationships by intensively monitoring drivers of change, ecosystem responses, and ecological processes. Approximately twenty sites throughout the Bay and its tributaries are surveyed during peak biomass and more frequently throughout the summer growing season where feasible. Website coming soon.

Parameters recorded: Parameters measured in Tier 2, plus cover of each SAV species present, macroalgae, canopy height, epiphyte loading, shoot density, indications of disease/lesions, indications of herbivory, biomass, and water quality properties including temperature, dissolved O₂ concentration, pH, turbidity/TSS, Chl a, and salinity. Higher level measurements are optional.



To get involved in any of these programs or for additional information, contact Brooke Landry at brooke.landry@maryland.gov

Partner Organizations

