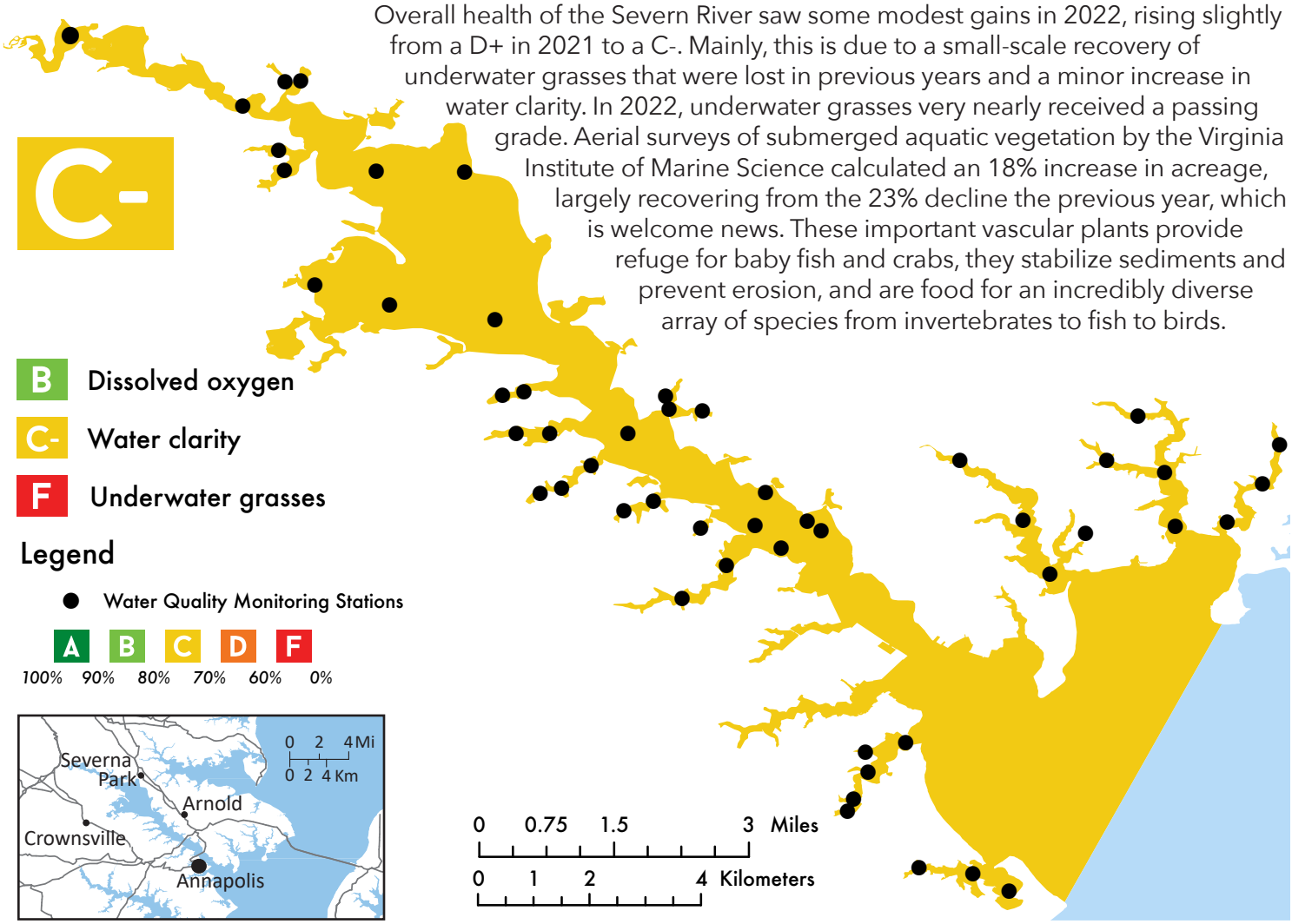
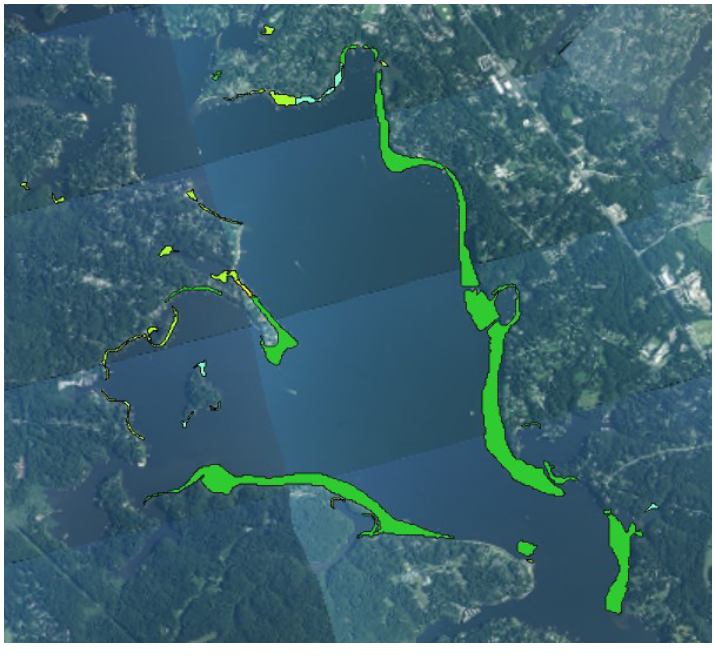
Severn River Report Card

Severn River ASSOCIATION 2022



Overall health of the Severn River saw some modest gains in 2022, rising slightly from a D+ in 2021 to a C-. Mainly, this is due to a small-scale recovery of underwater grasses that were lost in previous years and a minor increase in water clarity. In 2022, underwater grasses very nearly received a passing grade. Aerial surveys of submerged aquatic vegetation by the Virginia Institute of Marine Science calculated an 18% increase in acreage, largely recovering from the 23% decline the previous year, which is welcome news. These important vascular plants provide refuge for baby fish and crabs, they stabilize sediments and prevent erosion, and are food for an incredibly diverse array of species from invertebrates to fish to birds.



Spotlight on SAV

Hopefully rainfall patterns will continue to be beneficial for seagrass expansion in 2023. When it rains more, the river becomes a little less salty further down river whereas in drier years the denser, saltier water at the bottom can reach further up river. The amount of saltiness of the river can affect which species of aquatic plants do well, and where. Horned pondweed (*Zannichellia palustris*) and Sago pondweed (*Stuckenia pectinata*) can grow ideally in freshwater to intermediate levels of salinity, whereas Redhead grass (*Potamogeton perfoliatus*) and Widgeon grass (*Ruppia maritima*) have ideal growth ranges in those more intermediate levels of salinity (called the 'mesohaline' region of Chesapeake Bay).

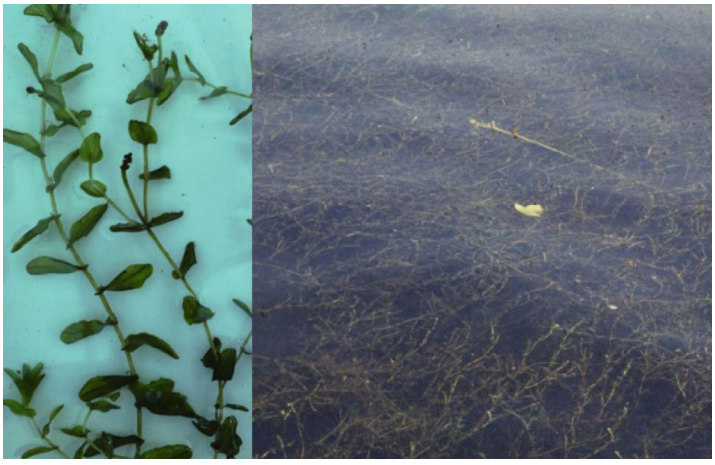
Left: SAV extent in Round Bay. Photo courtesy of Virginia Institute of Marine Science.

SRA Is So Fortunate To Have An Awesome Water Quality Crew!

A huge shout out to all our dedicated volunteers who help SRA collect all the water quality data! They are supported by our volunteer boat captains who host our water quality crews. Thank you!

Get To Know Your Severn SAV

Sago pondweed (*Stuckenia pectinata*) has slender stems with lots of branches, making it look bushy. Its thread-like leaves taper to a point. It grows in silty-muddy sediments. In early summer it forms flowers that look like beads on the stalk. Flowers release pollen that floats to the surface. Developing seeds look like grape bunches that stay on the stem until autumn. Many species of ducks, geese, swans and shorebirds love to eat all parts of Sago pondweed.



Redhead grass (*Potamogeton perfoliatus*) has short, flat, oval-shaped paddle-like leaves growing on alternating sides of the stem. The stem branches closer to the water's surface. It grows best in firm, muddy sediments with slow-moving currents. Tiny flowers emerge during early to mid-summer, extending above the water, and pollen is carried by wind. Fruits sink and then release seeds. Waterfowl, especially redhead ducks, love to eat Redhead grass.

Acknowledgments

Special thanks to Delaplaine Foundation for supporting our water quality monitoring program. SRA is proud to partner with the Chesapeake Monitoring Cooperative for technical guidance, quality assurance, and data upload to the Chesapeake Data Explorer. Report Card production is provided by the University of Maryland Center for Environmental Science.

Jesse Iliff – Executive Director, Severn River Association – Jesse@severnriver.org– 443-569-3556 – P.O. Box 146, Annapolis, MD 21404