

The Floating Gardener

A Publication Provided by The Magothy River Association



Turning the Tide? – A Letter From The Editor

As high summer rolls in on the Magothy, the clear days are a contrast to the river water, which is taking on its predictable summertime cloudiness. Not long ago it was the opposite. The cloud-filled, rainy skies that seemed never ending this past spring hung grey above beautifully clear river water, lush with aquatic grasses. This happy state of affairs prompted articles in several local publications, noting the improvement in water clarity and posing the question – could the tide finally be turning in favor of a healthier Chesapeake Bay?

Theories abound about why there was a bumper crop of grass this spring. Was it the dry summer last year? the reappearance of dark false mussels? the mild winter? unseasonably warm days in March? a cool monsoon spring? Lots of questions that inevitably lead to more questions, but with no definitive answers. Only one thing was crystal clear - the water, that is.

Dr. Steven Ailstock of Anne Arundel Community College's (AACC) Environmental Center suspects the grasses were a result of the very wet weather, noting that seeds germinate better in fresh water. His colleague, Dr. Sally Horner, added that the SAV growth was likely assisted by the clear water. Dr. Horner thinks the improved clarity may be, at least in part, a positive outcome of all the headwater restoration either completed or in progress in the Magothy. One thing's for certain, more SAV's will improve the Magothy River Index for 2016.

The majority of the threadlike green stuff floating locally was horned pondweed (*Zannichellia palustris*), but there were other species sighted by Dr. Horner and Michael Norman, also of AACC, including water celery (*Vallisneria americana*) found downstream from the Lake Waterford dam and upstream in tidal Mill Creek. They also found a patch of water starwort (*Callitriche heterophylla*) in the shallow headwater below the dam and spied parrot feather (*Myriophyllum brasiliense*) near the fish ladder on Cattail Creek. If you had an aquarium as a kid you'd surely recognize it. Although parrot feather is a non-native invasive plant, likely here because of the aquarium industry, it does provide habitat for local wildlife.

Other scientists are intrigued and weighing in as well. Is the clarity that was observed last fall and in the spring of this year a one-time event or a sign of more to come? Chris Moore, senior scientist in Virginia for the Chesapeake Bay Foundation, is hoping it's the latter. Clearer water is good for the bay's health, Moore says. It allows more sunlight to reach the bottom of shallow areas. That helps restore underwater grasses, which provide food and habitat for crabs, fish and other creatures.

Sound familiar? Though admittedly a small player contributing to the overall health of the Bay, floating gardens take advantage of that sunlight and employ their metabolic magic to filter excess organic nutrients, return valuable oxygen to the surrounding environment and provide important wildlife habitat. Our gardens are part of the force it takes to turn the tide.

Upcoming Events

July 20

MRA Monthly Meeting
Berrywood Community Clubhouse
7:30 PM

October 2

MRA Members' Crab Feast
Celebrating Our 70th Year!

Cape St. Claire
Details to follow

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Report Cards – The Good! ...and maybe the Bad?

The following article, from [The Virginian Pilot](#) last November, proposes that the water clarity began to improve at the end of 2015 as a result of the dry summer, which reduced the amount of run-off coming into the bay from the Susquehanna River and numerous other tributaries. Run-off carries loads of nitrogen and phosphorus from fertilized farms and backyards, which fuels the growth of algae and clouds the water, preventing the transmission of sunlight. Less runoff also means less sediment washing into the bay. The reduction of nutrients and sediment contribute to improved water clarity.

http://pilotonline.com/news/local/environment/the-chesapeake-bay-is-looking-strangely-clear-but-why/article_f518b125-f304-5673-899c-3a5d2f54e6b3.html

Another more recent article from [My Eastern Shore MD](#), cited information from The Chesapeake Bay Report Card produced by the federal Chesapeake Bay Program. Nick DiPasquale, director of the program, said, "We should take the opportunity to celebrate these results, but we should also recognize that the long term success of our work to restore water quality and the health of this vitally important ecosystem will depend on stepping up and sustaining our efforts over the long-term to reduce nutrient and sediment pollution discharges to streams and rivers throughout the watershed." The report card may be found at <http://ecoreportcard.org/report-cards/chesapeake-bay/> or read the full article here:

http://www.myeasternshoremmd.com/news/state_regional/article_c5171250-8deb-5b3a-b166-c7cf6af72893.html

Finally, here's a great video produced by the Chesapeake Bay Foundation to support their fundraising efforts. The clip demonstrates the water clarity that John Page Williams and Jay Fleming experienced when exploring part of the Severn River at the end of May. It's looks so inviting, you'll want to go grab a mask, some flippers and a snorkel and see for yourself!

<https://www.cbf.org/make-a-donation/abundance-in-the-severn?srctid=1&erid=55883481&trid=1b688363-2ef1-4803-b746-4e3c609a8c78>

So what's the 'bad'? A potential downside to this encouraging news is that the improvement we've seen may lead to the contention that, "Hey, the Chesapeake's not in such dire straits after all! Since the regulations in place to mitigate the negative effects of development seem to be working, what reason is there to discourage new development?"

At the Severn River Association's annual meeting on June 14, the State of the Severn River report was presented by SRA board member and USNA professor, Dr. Andrew Muller. The findings were based on water monitoring data collected via several tools, including a remote controlled submarine. Dr. Muller discussed the results and what's needed to keep the river healthy. He stressed, "We can't allow unsustainable & accelerating development to overshadow the small gains we have made in rehabilitating the Chesapeake Bay."

Remember my earlier comment about multiple theories and questions leading to more questions? The Bay has seen similar seasons of good water quality and clarity in years past, only to have the tide turn again. Sound science is based on conclusions drawn from multiple data points over time as part of a comprehensive course of study. Until a positive improvement is recorded over numerous years and under varying conditions, we have one very encouraging data point, but not yet a trend. Still, it's reason to be hopeful.



Intrepid By Design!

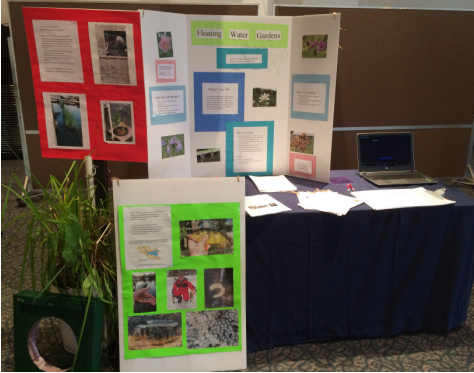
A testament to the stability of in the 3-plant floating garden design. Three years ago the MRA deployed two floating gardens in Lake Waterford. This winter one of the systems broke free.

At the end of May, MRA President, Paul Spadaro, walked with DNR and county staff along the upper Magothy from the Lake Waterford dam to Catherine Avenue to assess yellow perch habitat. They discovered the missing 3-plant system, now grounded along the stream bank (circled in red). Amazingly, the system remained upright after washing over the dam and down the spillway and then floating further down the Magothy for several hundred yards!

The 3-plant system are on sale at the Providence Center in Arnold for \$150. Contact Nathan Ullrich [nullrich@providencecenter.com](mailto:nnullrich@providencecenter.com)

Floating Gardens 'Branch Out' - On The Road

Severn River Association - On June 14, floating gardens were waving their leafy green flags at the Severn River Association's annual meeting, which was held at Woods Memorial Presbyterian Church in Severna Park. Members of the SRA have been enthusiastic about the floating garden concept and invited their MRA compatriots to share information about floating gardens with other SRA members. The MRA donated a floating garden to be auctioned as part of the event and created table centerpieces that contained examples of emergent plants, which were donated by the Providence Center.



Severna Park Farmers Market – The MRA set up shop at the Severna Park Farmers Market on several Saturdays this spring in order to make the single basket floating gardens available to the public to raise funds for their yellow perch project. These individual units were constructed by students in the Environmental Literacy Program at Broadneck High School in collaboration with the MRA as a fundraiser to defray the cost of specialized nets used in the yellow perch study, designed to assess the vitality of this species in the Magothy.

In case you haven't heard... The yellow perch eggs collected with those nets in the Upper Magothy in March actually hatched! Samples were processed in early May at AACC and the results were verified by DNR experts. DNR also collected egg sacks from the Upper Magothy this spring to see if the eggs would hatch in their lab and 50% of those eggs hatched as well! More than 100 egg chains were counted in all, each containing about 5,000 eggs. With an

estimated 50% survival, that means about 25,000 new yellow perch in the Magothy. These hatchlings clear the path for establishing Habitat Protected Areas (HPA's) within the Magothy and its headwaters. HPA's require county enforcement according to state law.

It's Not Too Late!

There are still a few single tray floating gardens available for purchase through the MRA. Single plant floats can be mounted individually to a pier piling or tied together in multiple ways per the photo. The \$40.00 cost includes both the float and a basket of healthy emergent plants, ready for launching at your pier. If you would like to purchase one or more units, please contact Paul Spadaro president@magothyriver.org.



FYI - Several local non-profits and community associations have expressed an interest in acquiring floating gardens. The MRA has a flier available that explains the project and contains informative links and important contact information. If you or your community association would like a copy of that flier to print or to share, please send a request to mafloatinggardener@gmail.com.

Gardeners' Forum:

Local fauna take our lofty words about creating good habitat now and for future generations to heart. Take a look at a recent video clip of one of our favorite local residents.

[https://www.youtube.com/watch?v=WK5MsXa\\$3xg](https://www.youtube.com/watch?v=WK5MsXa$3xg)

Anything you'd like to share about your floating garden? Send questions, comments and photos to: mrafloatinggardener@gmail.com



Floating Garden Emergent Plant Guide

The Emergent Plant Guide, detailing many of the plants used in the floating gardens, may be found in the April/ May issue of The Floating Gardener. <http://www.magothyriver.org/wp/wp-content/uploads/2016/01/Floating-Gardener-May-2016.pdf>. For a more comprehensive list of native emergent plants in Maryland, please refer to the DNR's website information at <https://www.nps.gov/plants/pubs/nativesmd/lists.htm>

Until next time... Happy 4th of July and Happy Summer!

