

The Floating Gardener

A Publication Provided by The Magothy River Association

Spring Has Sprung! – A Letter From The Editor

You know that old couplet, Spring has sprung, the switchgrass has riz, I wonder how my hibiscus iz? Well, maybe it doesn't go quite like that, but you get the idea. It's the season of awakenings – in the forest, along the creek banks, and in the garden, including those that float. Time to dust off the newsletter!

Mental notes made as a result of last year's garden successes and failures that were filed away for the winter are coming back to life too, as I make my annual resolution that I will emphatically NOT let the season get ahead of me and my good intentions this year. Those notes also contain a list of things I'd like to plant that I've never tried before – cotton, for one. If you're thinking about maybe trying something new and want test the waters with plants that are a little bit different, why not do it literally and add a floating garden? If you've already got one, why not add another with a slightly different set of plants? The Magothy River Association (MRA), in conjunction with The Providence Center and Broadneck High School, have made versatility easy this year with the introduction of the single plant float. These single-unit floating gardens can be mounted individually to a pier piling or tied together in multiple ways via four eyehooks located on each corner of the float. Credit for optimizing the new single tray design goes to the students in the Environmental Literacy program at BHS, who proposed the eyehook addition that allow the trays to be arranged in multiple combinations.

This month, you'll hear a little bit more about those Broadneck High School students and how yet another collaboration within the local community is generating activity and expanding awareness about the environmental impact of floating gardens, which improve the health of our rivers by adding oxygen to the water, filtering excess organic nutrients and providing wildlife habitat. All that, while adding an element of beauty to the bulkheads on the shoreline.

Of course, other benefits have 'sprung' up as well, like getting to know some students who are well prepared to be part of the next generation of environmental advocates. Read on to find out how they came to be involved in the MRA's floating garden project and make sure to check out the new single tray garden floats on sale for Mothers' Day at the Severna Park Farmers Market.



Upcoming Events

April 30 & May 7

Mothers' Day Sale
Single Tray Floating Gardens

Severna Park Farmers Market
Arnold Park & Ride 8AM - Noon

June 11

Magothy River Day
Celebrating 70 Years!

Dobbins Island
1 – 3:45 PM

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Environmental Literacy at Broadneck High School

Anne Arundel County high schools each offer a Signature program that's unique with a theme that reflects the school and community and connects classroom instruction with real-world situations and workforce-relevant skills. Signature brings together educators with local business and community leaders to make classroom instruction relevant, interesting, and challenging for students with opportunities that connect to the 21st century workplace. The Signature program at Broadneck High School is Environmental Literacy.

At BHS, Environmental Literacy 1 is an elective, project based class with connections to career and college exploration. Students study different environmental topics including economics, energy conservation, improving health, sustainability, plants & animals, law & policy, and reducing waste. Students can then elect to take Environmental Literacy 2, where they develop and implement a capstone project relating to a theme of their choice from Environmental Literacy 1. Luckily for the MRA, those students elected to help out with the floating garden project and took on the construction of the new single plant floats! These individual units will be offered for sale at the Severna Park Farmers Market in the 2 weeks preceding Mothers' Day for \$40, which includes the float, basket insert and plants.



Led by their Environmental Literacy instructor, Mrs. Christiana Sipe, four BHS students, Baylee Bruso, Brigid Saroch, Peter Galoci and Griffin Honse have spent the semester developing sales and marketing materials and constructing the actual floats, which will be filled with baskets of emergent plants produced at The Providence Center. The clever addition of the four eyehooks allows for a variety of quantities and arrangements like those pictured below.

Take a look at the YouTube video that describes the new design and features the Broadneck High School Environmental Literacy construction team.

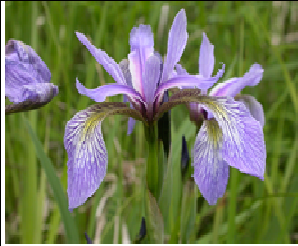
https://www.youtube.com/watch?v=BtSLHd-Ccig&feature=em-share_video_user



Emergent Botany 101— Class Cancelled!

Instead of the monthly botany feature this year, the 10 native emergent plants featured last year are listed in the following guide, along with pictures, descriptions and information about the conditions in which they would be expected to thrive. For a more comprehensive list of native emergent plants in Maryland, you may want to check the DNR's website information at <https://www.nps.gov/plants/pubs/nativesmd/lists.htm>

Floating Garden Emergent Plant Guide

Common Name	Scientific Name	Photo	Characteristics	Value for Wildlife	Conditions/Salinity	Notes
Marsh Mallow, Crimsoned eyed Rose Mallow, Marsh Hibiscus	<i>Hibiscus moscheutos</i>		Marsh hibiscus is an obligate wetland plant that grows in areas of regular inundation or along waterways at or near the high tide mark. These herbaceous perennial plants can grow 4 -7 feet in height with numerous semi-woody stems arising from a central base. Although white with a crimson center is the most common color of the flower it also blooms in varying shades of pink and red. Bloom time for marsh hibiscus is late summer; although a bloom only lasts one day the plant is putting on a nice display all the way until fall. Flowers are replaced by large loculicidal capsules that contain numerous seeds.	Highly sought after by the ruby throated humming bird. Seed capsules persist on the plant through the winter, giving visual interest. Once the capsules dry, they open up to provide seeds for songbirds throughout the fall and winter months.	Full sun and can tolerate a wide range of salinities from 0-15 ppt.*	
Blue-water iris, blue flag, northern blue flag.	<i>Iris versicolor</i>		The blue water Iris is a northeastern native with graceful sword-like leaves that grow 2 – 3 feet from a basal rhizome. The bloom time for Iris is in early May and can last as late as July. Beautiful blue violet flowers with yellow streaked sepals arise from sturdy stalks for a showy display in the spring. This plant produces a 2 – 3” capsule and will self-seed and spread by rhizome. The rhizome and rootstock of blue water iris is considered poisonous, however early colonists learned to use the plant for medicinal purposes.		Sun to part shade. Grows best in moist to wet rich soils, however Blue water iris is highly adaptable and can be easily established in moist garden soils. Found mostly in freshwater systems like swamps and tidal headwater areas this plant can tolerate inundation and some salinity infrequently throughout the season.	
Seashore mallow, Virginia saltmarsh mallow, Virginia Fen-rose.	<i>Kosteletzkya virginica</i>		Seashore mallow is an obligate wetland perennial native to coastal brackish marshes of the Atlantic and gulf coast regions. Although a perennial, this plant has a relatively short life cycle and will reach full maturity in about five years then decline; ample time for it to re-seed itself. It has a coarse upright habit that forms and attractive 4 - 6’ shrub with open hairy branches of bright green, triangular to ovate leaves. Seashore mallow puts out an impressive bloom from July – September of 3” light pink flowers with bright yellow fused stamens.	The flowers are attractive to both bees and hummingbirds. The numerous dark brown capsules that form on the plant throughout the season provide food for wildlife and give this plant an attractive winter form in the landscape.	<i>K. virginica</i> grows best in full sun under swampy conditions or regions of regular inundation. It prefers acidic soils and higher salinities but tolerates a wide range of soil conditions, and salinities from 0 – 15 ppt.	
Switch grass, Panic grass, Panic raide	<i>Panicum virgatum</i>		<i>Panicum virgatum</i> is a native warm season grass that grows in all regions of North America, with the exception of the west coast. Switch grass is most prominent in the central plains, seasonally moist open areas, and high brackish marshes where it forms dense stands. <i>P. virgatum</i> grows 3 – 6’ tall and forms dense clumps of stiff, erect stems. Switchgrass has a deep fibrous root system – nearly as deep as the plant is tall, making it useful in preventing erosion. Flowering stalks of open reddish-purple seed heads occur from July through August, with mature seed development in mid-September to late October.	Switch grass stands are important for both food and habitat for many wildlife species.	Tolerates sun to part shade and can grow in either moist or dry sandy to sandy loam soil conditions.	Excellent for erosion control and reclamation projects. Also currently used for ethanol production in the biofuel industry

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Marsh fleabane, Salt marsh fleabane, Southern marsh fleabane, Sweetscent, Camphorweed, stinkweed	<i>Pluchea purpurascens</i> – (<i>Pluchea odorata</i>)		Marsh fleabane is a native wetland annual or weak perennial that inhabits moist brackish to saline marshes along the eastern seaboard to the Gulf of Mexico, as well as inland saline locations. Its growth habit forms an attractive 1 – 5 foot herbaceous sub-shrub with multiple erect, stiff, downy stems covered with velvety lanceolate leaves. <i>P. purpurascens</i> blooms from July through October with a profusion of fragrant clusters of pink-lavender flower heads that add a vibrant splash of pink to the marsh.	Marsh fleabane is visited by countless numbers of native bees and insects and is an important resource to our native pollinators.	Full sun but can tolerate some shade. It prefers to live in salt marshes but is tolerant of a wide range of conditions.	Other uses for this plant are in dried flower arrangement, as an insect repellent and herbal tea. Early colonists also used it for medicinal purposes.
Soft-stem bulrush, Soft-stem club-rush, Great bulrush	<i>Schoenoplectus tabernaemontani</i> (formerly <i>Scirpus validus</i>)		Softstem bulrush, a member of the sedge family and found throughout North America. <i>S. tabernaemontani</i> can spread rapidly and has a distinctive flowing form in the landscape with its 3 – 9' tall, weak tubular leaves and reddish brown drooping spikelet clusters. Flowering occurs in the late spring to early summer, followed later by an abundance of drooping seed heads.	Seed heads provide food for waterfowl, shore birds and wetland birds. The tall leaves provide good nesting cover for the birds while muskrats love the extensive tubers it produces.	This plant is an obligate wetland variety that likes full sun and a wet to inundated condition at all times. It can tolerate a range of salinity from 0 - @ 6ppt so you're likely to find it in shallow freshwater wetlands, alkali wetlands, along the banks of brackish tidal tributaries and in wet meadows.	Native Americans wove the long straight stems into mats and used the underground rhizomes for making bread meal and a sweet syrup from its boiled roots.
Seaside goldenrod, Salt-marsh goldenrod	<i>Solidago sempervirens</i>		Seaside goldenrod is a fall-flowering native perennial native to eastern North America and parts of the Caribbean. <i>S. sempervirens</i> can grow to a height of 6' tall; it has an alternate leaf arrangement of succulent, oblong, entire, leaves that extend from a basal rosette of evergreen leaves to the tip of the flowering stem. Flowering occurs from August through October with an abundance of dense bright yellow flowering heads.	The benefits of seaside goldenrod are many, it serves as an nesting habitat in secondary dune environments for a number of shore birds. It's a vital resource for over-wintering, gall producing parasitic wasp species. Additionally, fall migrating monarchs rely on it as a major food source, and numerous native butterflies, insects and birds utilize it for food and shelter.	Drought and salt tolerant wetland variety that colonizes moist soil, sand dunes, grassland, and transitional areas.	Erosion control and dune stabilization
Smooth cordgrass, Saltmarsh cordgrass	<i>Spartina alterniflora</i>		<i>Spartina alterniflora</i> is an obligate warm season perennial grass that grows 4 – 7 feet tall. Spread from this plant is rapid through an extensive vegetative rhizome system. The flower is a spike 10 -12" long borne on taller spongy stems from September through October. Considered the dominant grass growing in coastal marshes along the Atlantic and Gulf coast smooth cordgrass plays an important role in the vast brackish and salt marshes along the eastern seaboard from New Foundland to Texas. In intertidal regions, this plant is highly effective at dissipating wave energy, stabilizing sediments and absorbing excess nutrients.	Habitat and food source in both natural and man-made wetlands.	It prefers full sun and is tolerant of salinity conditions from brackish to highly saline.	

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Salt Marsh Aster	<i>Symphyotrichum tenuifolium</i> (formerly <i>Aster tenuifolius</i>)		The perennial salt marsh aster, while rather inconspicuous as a plant, stands out remarkable in the salt and brackish marshes where it is found. This low-growing member of the Aster family is an obligate wetland plant that grows 1 – 2 ft. in height with fleshy long narrow leaves and a sprawling mounded form. The distribution of <i>S. tenuifolium</i> is along coastal regions from Maine to Texas and is limited to tidal salt marshes. The flowering period is from August thru October with an often sparse showing of delicate blooms ½ - 1" across ranging in color from pale purple, pink or white		Obligate wetland plant tolerant of high salt conditions.	
New York Ironweed	<i>Vernonia noveboracensis</i>		New York Ironweed is a tall, clump forming, herbaceous perennial found east of the Mississippi and as far north as southern New York and Massachusetts. Ironweed forms loose clusters of reddish- purple blooms from August through September on 5 – 8 ft. erect stems that loosely branch near the tops of the plant. <i>Vernonia ovaboracensis</i> gets its name in honor of the 17 th century botanist William Vernon; the Latin interpretation of noveboracensis is New York where the plant was presumably first identified.	Of great benefit to the abundance of native bee species that rely on it, as well as, a source of nectar for butterflies and seed heads for birds.	It prefers full sun, moist meadows and high marsh regions but is also reasonably drought tolerant.	Used for pneumonia, loose teeth, snake bites, menstrual pain, and pain after childbirth in traditional medicine.

Photo credit: Michael Norman

The following sites were used as a references:

<http://plants.usda.gov/java/>

<http://www.wildflower.org/explore/>

Gardeners' Forum:

Anything you'd like to share about your floating garden? Send questions, comments and photos to:

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