

Muddy Gloves Quarterly

Summer 2019 Edition

Brought to you by the Stewards of the Thielke Arboretum

Walk on the Wet Side by Naomi Gamorra

What do the Diamond Brook and Glen Rock's drinking water have in common? Both are spring fed, or in other words, come from an under-ground source – an aquifer that lies beneath the surface of Glen Rock and adjacent towns. Our aquifer is sandstone bedrock, full of cracks and pores that store our drinking water.

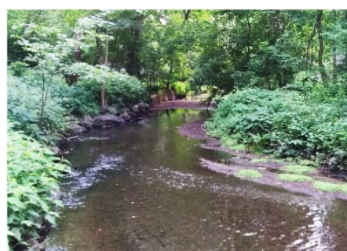
Both the Diamond Brook and Glen Rock's water thus depend on local wetland ecosystems. Wetlands are unique environments that are extremely important to the health of our world. They support abundant biodiversity, absorb carbon dioxide, store carbon, and help control flooding by storing water. Through the process of percolation that water slowly filters down into our aquifer, recharging it—feeding the brook and providing our clean drinking water supply.

At the Thielke Arboretum, land stewards work diligently to care for the forested wetlands by reintroducing native tree species like Atlantic white cedar and black spruce. Stewards also regularly remove invasive plants such as garlic mustard and multiflora rose that choke or crowd out native species. These activities encourage wetland plants such as skunk cabbage and ferns to grow and flourish, maintaining the habitat and providing a home for all our bug, bird, and butterfly friends.

Weed Warriors! by Pat O'Connor

George Washington Carver said a weed was merely "a flower in the wrong place." Stewards of public land across the USA are engaged in an endless struggle to hold back invasive plant species, many of which were deliberately introduced from Asia or Europe. Even volunteers with only a few hours to spend at the Arb on a single occasion can and do give an important boost to our stewards' ongoing fight with whatever species is being targeted for hand-pulling (e.g., garlic mustard) or digging (e.g. Japanese knotweed) that day.

The timing of the engagement depends on the plant's lifecycle. Garlic mustard, for example, flowers and goes to seed early. Sharp-eyed Arb visitors saw in May many a contractor-grade bag stuffed with garlic mustard sitting by the "flower circle," awaiting removal by the GRDPW. The season on that invasive is largely over now. But there's always another species to attack, and the stewards would be glad to have a few hours' help from you!



Diamond Brook

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Garlic Mustard, *Alliaria petiolata*

Volunteer with Us !

Stewardship Volunteer Hours - 9am-12pm - Every Tuesday & Saturday
weather permitting

Spring Field Report by Herb Arbeiter

PROJECTS: Tree planting, deer protection, pop-up planting, trail corduroying, etc.

DATES: March 2019 –June 2019

VOLUNTEERS PRESENT INCLUDE:

Stewardship Director: Jean E.

Veterans: Tom B., Peter B., Joe B., Naomi G., Fred G., Fred L., Rose S., Pat O., Jennifer O., Christiane O., Barbara P., Lisa S., John T., Noreen P., Wendy W.

2019 Master Garden Classmates:

Marie A., Herb A., Cynthia D., Ed D., Carol E., Liz G., Lillian K., Sandi L., Diane V., Keith M., Caroline N., Gerry R., Harriet S., Zoran V., Jeannie Y.

Students: Alex, Beatrice, Max, Musaab

Newbies: Frank, Steve (If we missed you, let us know!)

CONDITIONS: Usually cool and damp, 30° - 50° weather. We managed to avoid the rain on most occasions.

DAYS/TIMES: Tuesdays & Saturdays / 9:00 AM - 12:00PM (With an occasional "Special" day, e.g., Arbor Day, Pinelands Pick-up, Pop-up Planting, Viburnum planting, etc.)

Tuesday sessions were led by Master Gardener Barbara P. Saturday sessions were led by the big chief, Jean E. with assistance from Veteran Master Gardener, Pat O.

TREE OF THE SEASON

Swamp White Oak, *Quercus bicolor*

- Full Sun /Moist Soil
- Provides Deep Shade
- Larval Host to 100's of Beneficial Insects
- Acorns Feed Wildlife



How many stewards does it take to...?



Arbor Day Tree



Monster Viburnum



Corduroying Along

COMPLETED TASKS:

1. Spring saw plantings galore. We planted 170 trees. OMG! Granted, about 80 of them were bare root seedlings but them babies is gonna grow too. Also planted were 1,150 perennial plugs and 4 humungous shrubs (ouch). The shrub planting required the help of ten people. Unfortunately, only three were available. We almost lost Big Fred in the hole. Fred managed to scurry out, but the 300 lb viburnum root ball was lying sideways and wouldn't budge. Jean came to the rescue with the borrowed Rutgers pick-up truck and we managed to right the recalcitrant shrub.
2. We wattled along with survivalist Joe Blevis and made use of nasty bamboo for our all-natural children's garden (in the making).
3. There were a few "pop-up" planting days. These were emergency sessions to plant perennial plugs that were delivered during the week and had to be planted quickly in order to survive. Special thanks to the stewards who came to help!
4. A large effort was made to protect new tree plantings from hungry and mischievous deer. Caging or fencing has been placed around most of the new plantings to allow them to grow. We have a job offer out for a deer whisperer, we need help training them to behave. Heck, it works for horses.
5. With Diane V. riding shotgun, I drove to Pinelands Nursery, in southern NJ, to pick up a 'few' shrubs according to Jean. Well the 'few' were quite a few and I almost had to send Diane home in an Uber. Thanks to the expert packing techniques of the Pinelands personnel we were able to make it home with a van full of "goodies," our necks tickled by shrub leaves the entire trip. Jean calls this a "rite-of-passage."
6. Trail master Pat O. introduced a new technique to the Thielke trails. CORDUROYING! In this technique, 1"– 3" diameter logs are imbedded into the mud of especially soggy sections of the trails to provide a solid walking surface. The logs stay in place in these areas where wood chips were regularly washed away. We will continue to make these installations in the future but please, leave the pants at home.

Invasive Vice or Native & Nice, What is Your Garden Made of ? By Jean Epiphan

INVASIVE

BUTTERFLY BUSH, *Buddleja davidii*

Twenty years ago, the most popular plant for attracting butterflies to your garden was butterfly bush, *Buddleja davidii*. What's not to like? Several color varieties, long lasting blooms, drought tolerant, the list goes on.



Red admiral on butterfly bush flowers

Wait--"what's not to like?" about this attractive plant? Turns out butterfly bush is very invasive! It's from China. There, it provides ecological services to its native habitat. Here in NJ (or the US), it does anything but! It takes of lots of energy for a butterfly to fly, depositing eggs and finding nectar. By its sweet nectar *Buddleja davidii* attracts the adults of our native butterflies, but it provides nothing for larvae. That is: *Buddleja* certainly does draw the lovely butterflies for us to admire--at the same time as it ensures the starvation of the next generation. --Not anything a lover of butterflies wants!

If your property has a butterfly bush, you may think "What do you mean, invasive? It dies back every winter!" The fact that you haven't seen the invasion doesn't mean it's not happening... as we'll discuss in more detail in the next issue of the *MGQ*. It can take anywhere from a few years to a couple of decades for butterfly bush (and other invasive plants) to proliferate aggressively and displace native species.

Buddleia seeds are dispersed by wind, and that the plant can rapidly colonize meadows, riparian areas, and forest gaps--as well as your neighbor's yard. It out-competes native vegetation as it spreads. it degrades and destroys natural habitats. Your butterfly bush could very well have done that without your knowledge. How to help butterflies? Pull out your butterfly bush and plant sweet pepperbush instead!



Butterfly bush leaf undersides

Learn to recognize butterfly bush in the landscape – aside from it's diagnostic flower panicles, it has opposite leaf arrangement, new growth is white as well as the leaf undersides.

NATIVE

SWEET PEPPERBUSH, *Clethra alnifolia*

Of the several native shrubs that attract butterflies, our local summer flowering favorite is sweet pepperbush, *Clethra alnifolia*, (aka summer-sweet). The amazingly aromatic white flowers borne on upright spikes not only grab the attention of many butterflies, but several other pollinators like bumble bees and hummingbirds. Sweet pepperbush also supports more than 100 species of beneficial insects like the soldier beetle that feeds on nectar and pollinates flowers and also eat aphids and other soft bodied insects (some considered pests).



Tiger swallowtails on sweet pepperbush flowers



Sweet pepperbush flowers

Sweet pepperbush is found throughout the East Coast in several plant communities from maritime forests to inland seepage swamps and ravines in forested highlands. It is found here at the Arboretum, but is losing ground in other nearby forests to deer, habitat destruction, and invasive plant infiltration. Luckily we can help in our home gardens by adding it as an accent shrub, hedge, or raingarden staple. It is commercially available and is very hardy if planted in acidic moist soil under part shade.

Sweet pepperbush comes in a few different varieties, but it is truly best to plant the original native species and those that have locally native progeny (that is, grown from locally collected seeds). Why? Local progeny are adapted to our environment and climatic conditions. Use of sexually-reproduced plants also helps to conserve genetic diversity and natural heritage. Cultivated varieties of any plant are often clones. They are completely genetically identical, so any disease that arises may wipe out every plant. In addition, their altered forms may not be recognized by native pollinators.

Learn to identify sweet pepperbush – the leaves are toothed, oval, but widest at or above the middle and leaf arrangement is alternate.



Sweet pepperbush leaves

Sedges have Edges by Pat O'Connor

A year ago masses of volunteers mobilized nearly daily to create the natural setting for the Vielbig/Scerbo Environmental Education Center ahead of its scheduled

opening. Those who participated in the enormous effort of course remember moving the tons of river rock that surround the building, spreading dozens of cubic feet of mulch, and rolling into place the huge log slices that serve as a rustic seating area. But what they most remember is planting, and planting, and planting some more. Azaleas. Birches. Blueberries. Cardinal flower. Columbine. Ferns. Milkweed. Northern Sea Oats. Pitch pines. Rhododendrons. Rushes. And sedges.



Star Sedge, *Carex radiata*

Flats and flats of sedges. Hundreds and hundreds of sedges. Scout troops planted sedges. Master Gardeners planted sedges. Stewards planted sedges. Every volunteer who could pick up a trowel, kneel in the mud (the whole area around the EEC was a sea floored with compacted clay--clay generously studded with fist-sized stones--rather than the rich soil that should have been there), and punch a hole three inches deep was at some point dragooned into planting sedges.

Once they were planted, compost, and topsoil were spread between them. Straw was used to mulch them. Soaker hoses were set up to water them. Such tlc for those little plants! Humble plants that were it not for their solid, triangular stems (the "edges")--would be nearly indistinguishable from the grass of a

home lawn. Except. . . many sedges are evergreen, require little or no watering or mowing (and certainly no application of fertilizer or other chemicals). They're host plants for native insects and provide seed for birds and small mammals.

Which are some of the reasons why this particular native New Jersey sedge makes such a wonderful replacement for grass! (Especially in damp, shady areas where we generally have a lot of trouble with grass anyway.) A year after planting, the Ed Center's sedges are established, flowering, and self-seeding. The hundreds of plugs of 2018 are in 2019 exactly what was imagined: a thriving low-maintenance carpet of green that provides food and shelter to other native species.

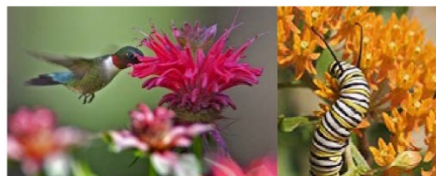
"Dear Tom" by Tom Bender

Dear Tom,
What are some deer resistant summer flowers that are also good for our local environment (provide wildlife benefits)?
-Wildlife Fan

Dear Wildlife Fan,

This is a great question because we can plant gardens that are both beautiful *and* beneficial to the ecosystem by choosing natives. If you have a deer problem, consider wild bergamot, *Monarda fistulosa*, or scarlet bee balm, *Monarda didyma*, for showy flowers that attract butterflies and hummingbirds (and the fragrant leaves can be used for tea and in cooking!). Also consider milkweeds for their pollinator benefits. Common milkweed, *Asclepias syriaca*, and swamp milkweed, *Asclepias incarnata*, among others, attract many butterfly varieties and are an essential host to the Monarch butterfly. Butterfly weed, *Asclepias tuberosa*, is a far better nutritional source for butterflies, hummingbirds and native bees than the invasive butterfly bush.

For another deer resistant native, you can choose from a variety of mountain mints, *Pycnanthemum* species, such as whorled, *Pycnanthemum tenuifolium*, short-toothed mountain mint, *Pycnanthemum muticum*, or Virginia mountain mint, *Pycnanthemum virginianum*. These plants are related to—but not the same as—true mint *Mentha* species; the leaves are aromatic when crushed and can be used for tea. The seeds, leaves and flowers provide important food to bees, butterflies, birds and mammals.



Scarlet bee balm w/ hummingbird (left),
Butterflyweed w/ monarch caterpillar (right)



Short-toothed mountain mint

UPCOMING EVENTS

- Su. 6/23 Fishing Derby 10am-12pm
- Tu. 6/25 Bats! 10am-12pm
- Fri. 6/28 Nature's Fireworks! 8-9pm
- Tu. 7/2 Best Gardening Advice 7pm
- Fri. 7/5 Nature Nerd Night 5-7pm
- Sa. 7/27 Trout Unlimited Family Day
- Fri. 8/2 Nature Nerd Night 5-7pm
- Tu. 8/6 Best Gardening Advice 7pm
- Mon.-Fri. 8/19 - 8/23 & 8/26 - 8/30
Rocks & Gem Camp 9-11am
- Su. 9/15 Historic Tree Walk for
Glen Rock 125yr Anniv. 1pm

For complete information or
to REGISTER visit:

www.thielkearboretum.org