

THE ACORN

JULY 2022

Now maybe a little less rare

Over the last 21 years, our Wild Plant Nursery has primarily focused on growing a mix of “down the middle” species for restoration purposes. That is, we try to grow things that are neither so common as to be both ubiquitous and spontaneous, occurring on disturbed sites without any need for replanting, nor so rare that we would have trouble finding appropriate habitats for them. Over the years, we’ve used that approach to grow more than 300 species – about a quarter of the total vascular plant diversity found in Fairfax County.

But of course, we’ve grown some rare plants as well. Most recently, we’ve been working with two rare species – both from threatened local populations – at the behest of ecologists at the

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Photos: Above, our volunteers planted rare meadow species in April at Elklick Woodlands Natural Area Preserve in Fairfax County, Virginia. At the County’s request, we are propagating and planting certain rare species to help with County meadow projects. Below, at left that’s Owen Williams, the Fairfax County Park Authority ecologist in charge of the Elklick project. He and Matt (our Conservation Manager, at center), and Sarah (our Volunteer Coordinator) are all shovel-ready, sled-happy, and eager to plant. Those new field sleds are just the thing for moving materials around on large sites. The sleds were purchased with funding from our generous donors, in response to last winter’s “Gear Up” funding drive. The auger in the sled on the right was another Gear Up acquisition.





TREE BANK UPDATE

It has been a hectic winter and spring for our Tree Bank program, which works along part of the Dominican Republic / Haiti border to conserve forest and improve small-holder farm incomes. (We work on the Dominican side of the border, but about 40% of our program-area population is Haitian and the program is meant to benefit both peoples.) Three important achievements:

Our coffee harvest last winter amounted to about 3,160 pounds of beans. That figure is for depulped and partly dried beans; most beans would likely not have been export grade. Even so, this is our largest harvest since the coffee leaf-rust epidemic of 2014-15. That epidemic killed virtually all of the coffee trees then growing in the Dominican Republic. We have been replanting since then as rapidly as we can, and tens of thousands of coffee saplings now fill the little forest patches that are a common feature of the landscape. Coffee is an important conservation tool for us: it's a valuable crop and in our region, it's only grown in the shade, so when it's planted under native canopy, coffee revenue becomes a reason to conserve that canopy. No farmer in our region would cut a patch of forest that is making money. (We only plant coffee in forest that is extensively disturbed; higher-quality forests can be enrolled in our credit program. See next item.) More and more coffee saplings are beginning to bear. It's hard to predict how much export-quality coffee we might harvest this winter but there could be enough to justify shipping to the United

States. Even if we don't export, people are beginning to make money from their coffee — a critical development for local conservation!

Our Forest Credit resource extends small lines of credit to our partner farmers, in exchange for conserving their highest quality forest patches. This year's loans, made in April, amounted to about \$35,150 made to 55 families to protect 358 acres of forest. The largest loans were for about \$1,110; the smallest was for about \$220. The amount lent this year is a record, as is the forest area protected. The number of families ties the record set in 2020. Not bad! The loans remain as popular as ever, but Cosme and Manolo, our Tree Bank Co-directors, are wary of inflation and are trying to calibrate loan size against ability to repay. Careful lending will help protect our credit resource.

The Tree Bank pickup, a 2018 Toyota Hilux purchased with funding from our generous donors, is now in regular service. Right now, that means hauling soil to the Tree Bank nursery, and hauling tree seedlings out of it. The pickup is in great shape and our farmers are very proud of it!

Photo: Back in December, our Tree Bank nursery crew produced yet another crop of fungus-resistant shade-loving coffee seedlings for farms near the Dominican Republic / Haiti border. Coffee revenue is a powerful incentive for conserving degraded forest canopy.



A LITTLE LESS RARE

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Fairfax County Park Authority: stiff goldenrod (*Solidago rigida*) and Torrey's mountain mint (*Pycnanthemum torreyi*).

State rare plants are ranked on a scale from S1 to S5 where S1 is “critically imperiled” and S5 is “secure” in regards to populations within the state. At the species level, there is a “global score” running a similar G1 to G5 scale. That ranks the health of the species overall. Stiff goldenrod is S2, or “imperiled,” in Virginia but is “secure” globally. While this goldenrod is more common in the Midwest, our East Coast populations represent the edge of its distribution and populations are smaller and more fragmented. Torrey's mountain mint is significantly more rare, ranking as “imperiled” both locally and globally. This taxon occurs only along the eastern seaboard and most, if not all, of those stands are small and fragmentary.

The Park Authority introduced us to some of the County's last remaining stands of these two species. In both cases, the wild stands were already threatened by trails and utility easements. Working exclusively with seed that we collected from these stands, we were able to grow out several hundred plants of both species for reintroduction on sites that Park Authority ecologists had identified at Ellick Woodlands Natural Area Preserve and Poplar Ford Park. That's where they found suitable habitat, and were confident that the new populations could be protected. Some readers may have joined us for the dormant-season plantings that we did early this year at both parks, as we worked around the meadow burning schedules at either site.

So far, the plantings have done well, and the feedback from folks at the Park Authority has been positive – not just because of our propagation, but also because of the quality of the planting work done by our volunteers. And in fact, our volunteers were involved in many steps of this process. For example, we had to replot hundreds of stiff goldenrod seedlings when germination rates greatly exceeded our

expectations. But the repotting didn't cost us a single seedling, thanks to the skill and attention of our nursery volunteers!

Both of these rare species were planted with a mix of more common meadow elements. We put in native thistles and lespedezas (*Cirsium* and *Lespedeza* spp.), narrowleaf whitetop aster (*Sericocarpus linifolius*), Indiangrass (*Sorghastrum nutans*), and beaked panic grass (*Coleataenia anceps*), all propagated at our nursery from local wild populations. The local-ecotype material from these more common species will, we hope, create what's called an “applied nucleation” in the way their populations develop. Here's what should happen: these meadows are large, so to keep costs down, they have been sown with some local seed, but mostly with cheaper commercial seed of these and other common species. The sown-in stock establishes quickly, thereby denying invasives a chance to establish themselves. Meanwhile, our local-ecotype plants establish themselves more slowly, and begin setting their own seed, gradually regenerating a seedbank on site and creating a more diverse meadow better adapted to local conditions.

While we're very pleased with the results so far, we know that reintroduction is no substitute for *in situ* preservation. But careful reintroduction of local-ecotype stock can create “back-up reservoirs” for wild populations. Indeed, our restored Torrey's mountain mint has already served this purpose, as the parent stand was damaged by herbicide overspray or vandalism last year. Absent our intervention, the County might have been one step closer to losing this species, even though protected habitat is available for it.

But that didn't happen! And we'll continue to work with our government colleagues to prevent such scenarios in the future.

— Matt Bright, Conservation Manager

Photo: in April, Matt introduced a group of young Green Muslims, Girl Scouts, parents – and whoever else wanted to come along – to a trillium patch at the Marie Butler Leven Preserve.



BACK AT IT

We have resumed, more or less, our normal, pre-epidemic routine. Our staff, interns, and die-hard volunteers are back out in the parks, yanking invasives and planting natives – activities that will never really be finished. Why not? Consider the degree and variety of disturbance to which most local parks are subjected: erosion from stormwater runoff, air and water pollution, misguided mowing, infrastructure maintenance, invasive alien pests and pathogens, and every naturalist’s favorite: invasive alien plants. Psychologically, we find that it helps to rebrand invasives-control as an essential civic activity, a bit like picking up trash. Invasives are the kind of trash that makes more of itself! Here’s a sampler of some of our recent activities.

At Rutherford Park, along Long Branch Stream, we have been stuffing dumpsters with the usual creeping green crud since last winter. It has made a big difference, at least for now. And the Fairfax County Park Authority has asked us to plant natives along the shoulders of a trail that they are installing to reduce erosion from an informal path. We have worked at Rutherford for many years, but none of our previous work is being disturbed by this effort.

At the Marie Butler Leven Preserve in McLean, we have been yanking out invasives along the edges of the big meadow. In March, students from the Stoneridge School of the Sacred Heart planted native forbs and grasses into the front meadow, and cut back successional tree growth to maintain the meadow. So far this year, we have hosted three Eagle Scout projects at the Preserve. In addition to invasives removal and planting, scouts installed wire cages around vulnerable shrub and tree seedlings, to protect them from hungry deer. These projects are a huge help in managing the Preserve’s surplus of deer and invasives, and its shortage of appropriate natives.

We’ve been busy at the nursery too! Our curbside pickup is still in effect and working well. And we have new point-of-sale equipment that is making our inventory management a lot easier. (As with those sleds shown on the first page, we have our donors to thank for the new equipment, purchased with funds from our year-end “Gear Up” funding drive.) Want to visit the nursery or volunteer? Get the details at earthsangha.org/wpn.

Photo: In May, Matt, our Conservation Manager, gave a tour of our work along Long Branch Stream in Fairfax County’s Rutherford Park. This was one of our spring “Community Days,” which also included a plant ID workshop at our nursery in April. More Community Days coming up!

EARTH SANGHA

CONSERVATION IN PRACTICE

The Earth Sangha is a nonprofit 501(c)(3) charity based in the Washington, DC, area and devoted to ecological restoration. We work in the spirit of Buddhist practice, but our members and volunteers come from a wide variety of religious and secular backgrounds.

Want to contact us or make a donation? You can support our work by becoming a member. Membership starts at \$35 per year. Donations are tax-deductible. You can mail us a check (made out to “Earth Sangha”) or donate on our website. We will send you a receipt and include you in our mailings. (If your name and address are correct on your check, there is no need to send us anything else.) To donate specifically to our DC-Area programs, write “DC- Area” on the check memo line; to donate specifically to the Tree Bank, write “Tree Bank” on the memo line. **Contact us at: Earth Sangha, 5101 I Backlick Road, Annandale, VA 22003 | (703) 333-3022 | earthsangha.org.** Complete program information is available on our website. Want to volunteer with us? We work with volunteers at our Wild Plant Nursery and our field sites in northern Virginia. For more information see our website or call Matt Bright at (703) 333-3022.

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One of the best: The Earth Sangha is recognized by the Catalogue for Philanthropy as “one of the best small charities in the Washington, DC, region.”

