

THE NEWSLETTER OF THE EARTH SANGHA

THE ACORN

DECEMBER 2020

THE SECOND HALF OF 2020: FOR US, AT LEAST, A LOT LESS AWFUL THAN THE FIRST HALF.

We didn't get sick, and we didn't go bankrupt. Given the circumstances, that's a kind of progress, but there's more to report! Actually, the second half of 2020 had its encouraging moments. (For the first half of 2020, see the November *Acorn*.) Here's a brief overview from July onwards.

We continued to strengthen our work with local land-managers. Truckloads of local-ecotype trees, shrubs, and herbaceous plants left our Wild Plant Nursery, bound for restoration plantings in Fairfax County, Falls Church, and Arlington County. Some of these plantings were community affairs. Others were more technical — mostly parts of long-term efforts to rehabilitate local meadows. For these sites, we or our agency colleagues collect the seed of high-priority species; we then germinate the seed, grow it out, and help install the plants on project sites. Some of the species involved are locally rare or state-rare.

In late spring, we restarted our Plant Grant program. The program applies a buy-one-get-one-free approach to purchases from our local nursery, for worthwhile park and schoolyard projects. By late fall, we had made 10 such grants, but the epidemic delayed several, which we hope to take up next year.

Eagle scout projects resumed at the nursery. In July, Thomas Tran and fellow-scouts from Troop 904 rebuilt two raised beds in the

container yard. The beds maintain samples of species that are hard to find in the field. And in November, Colleen Harrington and Troop 1533G rebuilt three more beds and constructed a very handsome and sturdy work table — by far, the best piece of furniture at the nursery!

We're also pleased to report three successful COVID adaptations:

1. Curb-side pickup worked well. Clients would email us plant lists, or sometimes just ideas or questions that Matt, our Conservation Manager, could use to help them develop a list. Either way, plants would eventually wind up in one of our bays, ready for pickup at the client's convenience. (The nursery closed on December 1 and will reopen — we hope! — around April 1.) You can help us improve our curb-side system: see the back page.

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Photo: Above, the front garden at Lisa and Chris Bright's house in August. Turf has given way to milkweeds, cardinal flower, asters, coneflowers, and many other local natives, all grown at our Wild Plant Nursery, in Springfield, Virginia. Below, in October, we put in about 750 plants on four restoration sites in Fitzhugh Park, in Annandale. All photos in this issue were taken during the second half of 2020.



ENVIRONMENTAL AWARENESS . ECOLOGICAL RESTORATION . TROPICAL AGROFORESTRY
NATIVE PLANT PROPAGATION FROM LOCAL ECOTYPES . GREEN BUDDHISM



HYPOTHENEMUS HAMPEI

Our Tree Bank program is built in part on coffee. The program works along a portion of the Dominican Republic / Haiti border, on the Dominican side, to conserve forest and boost small-holder farm incomes. (See the November *Acorn* for a Tree Bank update.)

Our farmers are poor and unlikely to conserve forest if it doesn't pay. Coffee is a high-value crop that is always grown under forest canopy in our program area, so coffee-tree groves provide an economic reason for saving the canopy overhead. The DR lost most of its coffee trees to a rust epidemic in 2014-15; since then, the Tree Bank Nursery has produced thousands of rust-resistant coffee trees to replace lost groves on local farms. (We don't plant coffee in intact forest.)

These groves have begun to bear fruit, but now we must confront another scourge, the coffee berry borer (*Hypothenemus hampei*). This tiny beetle is the world's worst coffee pest. From its origin in central Africa, it has been traveling the world as a stow-away in raw coffee beans intended for use as seed. It has infested nearly every coffee-growing country. The borer doesn't kill the trees but it can ruin the entire harvest. Every year, it does about \$500 million in damages.

The female does the damage. After mating, she bores into a ripening coffee berry and lays her eggs. The larvae feed on the berry and eventually emerge as adults to repeat the cycle.

The borer is not new to the DR, but renewal of the groves has created a huge opportunity for it: the beetle could undergo a population explosion. But there may also be an opportunity here for the farmers, in the form of better pest management techniques.

Insecticides can be used against the borer but we want to take another route: regular removal of all berries (including spoiled ones), trimming the coffee trees to make them easier to manage, and the use of insecticide-free bottle traps. We hope to show that the most important part of pest management is just regular care of the crop.

Photo: Above, at our Wild Plant Nursery, an enormous plant order awaited the City of Falls Church in September. That entire strip of vegetation is a single order — and Matt and Katherine had to pull and organize all 1,734 of those plants. That's Matt back there on the right, waving that blue sign around. Katherine took the photo. At right, let's just call it the Taj Mahal of water storage: in October our farmers installed a third "tinaco" (in the foreground), at our Tree Bank nursery. We're growing more trees, so we needed more water to keep our seedlings healthy during the winter dry season.

The second half of 2020: continued from page 1

2. Our propagation volunteers made a huge difference. It was too dangerous to host large volunteer field events, so we invited small groups of volunteers to work with us at the nursery, repotting woody plants. By late fall, the woodies looked better than they ever had — and they're ready for some serious growth next spring.

3. Our first "Chat with Matt" Zoom talk was well received. Matt held forth on matters of ecological consequence — and whatever else anyone wanted to talk about, to the apparent satisfaction of the 20 or so attendees. Matt has also been giving Zoom talks to garden and bird clubs. More Plant Chats are planned.

The Tree Bank is weathering the epidemic as well. See the update in the November *Acorn*. In our program area, on-farm demand for local native trees is clearly growing. It's hard to measure, but we suspect that this may be a cultural shift that has no local historical precedent.



A FRIENDLY WARNING FROM THE FIELD

One of the services that the Sangha offers our region is access to a very broad selection of local, wild, native plants — “local ecotypes” — for all sorts of landscaping purposes. To do this, we have to collect immense amounts of seed from a large number of species — more than 300 at last count. (We have permission to collect and we’re careful not to take too much from any one area.) We started collecting in 1998; 22 years later, Lisa, our principal collector, has become very familiar with many of the natural or semi-natural areas where she harvests, and what she sees is not encouraging.

Even in a more-or-less natural state, native-plant communities can be very dynamic. In meadows and grasslands, species composition may vary greatly, not just from one spot to another but also over time. Certain species may be absent for years and then an unusually wet summer calls them forth from the soil and there they are! In forests, native shrubs and trees may shed prodigious quantities of seed in one year and produce next to nothing for several years thereafter.

This natural variation tends to mask the declines that Lisa is seeing in so many of our seed-collection sites. The spread of invasives, habitat loss from development, and, of course, climate change — these and other corrosive forces are converting complex and diverse native-plant communities into weedy patches dominated by invasives and the most common, disturbance-adapted natives. A place can be very green, but also be very degraded. Green isn’t necessarily healthy.

Human-caused ecological change is not always bad, but we have lost our sense of proportion. We are not leaving enough room in our



local landscapes for nature and natural processes to persist, and we are not investing enough attention and money to maintain our natural areas even over the medium term.

What can we do about all this? Actually, we can do a lot, since civic interest is the bedrock of conservation. But if you’re new to these issues, we suggest that you start simple and personal. Next year, consider doing these two things, if you can. 1: If you own property, put in a native-plant garden, even a little one, and let the plants begin to teach you about themselves. And 2: pick a nearby natural area and walk it regularly. It doesn’t have to be a spectacular park; any patch of field or forest will do. Just do those two things — and you’ll soon find opportunities to do more.

Photos: Above, in October Lisa double-checked the ID of a new species before processing its seed. Every winter, the Brights’ living room becomes a native-plant seed barn. At left, Katherine prepared to plant a hazelnut seedling at the Marie Butler Leven Preserve, in November. That wire cage beside her is to keep deer from browsing whatever is planted inside it — in this case, another hazelnut. This one was planted just two years ago and now towers over Katherine by several feet. A very contented shrub! Last year, after just one year of growth on-site, it began to bear its own nuts. Below and also in November, Olivia, one of our fall interns, made some cages at MBLP. It’s true that metal cages require some effort to make, and they’re more expensive and heavier than “tree tubes,” but they actually work!



HELP US EXPAND OUR RESTORATION NURSERIES!

For our DC-area Wild Plant Nursery, we need your help to create:

More greenhouse space. We're building an array of small, passive solar greenhouses so that we can integrate our germination and container yard work. We have finished one greenhouse and are building a second. Eventually, we hope to build ten of them.

Improved irrigation. We need finer control of sprinkler timing — more water for hydrophilic species, less for hydrophobes — and easier use of our current hand-lines, with less interruption of sprinkler timing.

Ergonomic potting stations. We need work benches that are the right height for stand-up work and that can be left in place, so we don't have to waste time with near-daily set-up and break-down chores. We also plan to equip the area with a sink.

A little management shed. Currently there is no place at the nursery that can keep documents, or electronics, or staff members away from the rain and attendant mud. Muddy documents, cell phones, and staff members don't work as well as clean and dry ones.

Improved pickup bays. Our curbside pickup system has proved popular but our pickup bays consist only of loosely placed cinderblocks. Visitors don't always realize what they are, and there's always a risk that someone will step (or drive!) into the wrong place. Sturdier, more clearly defined bays will make these transactions even easier.

For the Tree Bank, we're planning:

An office. The Tree Bank now has a part-time staff of eight and is serving 55 small-holder farms, but we have exactly 0 square feet of administrative space. We want to build a little one-room office as an extension of the meeting and storage facility that we constructed back in 2012. That building is right up the road from the Tree Bank nursery, so it's the obvious place for an office.

A secadero, a raised concrete floor used to dry coffee and cacao beans. We'll probably build one with hoops overhead to support a rain cover. Prompt drying after harvest usually improves the taste of coffee and cacao — and a higher-quality harvest will put more money in our farmers' pockets. We will probably build the secadero at the Tree Bank nursery.

Two very generous donors will match you! Our benefactors will match the first \$50 of your gift! You give at least \$50, we get at least \$100 — and you can designate the full amount for either the local or the Tree Bank nursery. See the enclosed reply card, or give on-line at earthsangha.org. The match runs through January 3. One \$50 match per household.

Photo: In October, a Tree Bank crew covered this site with a planting of native, local-ecotype tree seedlings grown at the Tree Bank nursery. The site's owner, Manuel de los Reyes, is a Tree Bank farmer himself. Despite the luxuriant banana, the site is too steep to farm easily, and Manuel asked for help converting it from invasive thicket to a little patch of native forest, so we chopped it out and planted it 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](http://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.

The Acorn: Our newsletter is printed on paper that is 100% post-consumer waste recycled, process chlorine-free, and manufactured entirely with wind-generated electricity. This issue copyright © 2020, Earth Sangha.

Gold-rated: The Earth Sangha has a gold rating from GuideStar Exchange for commitment to transparency.

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."

