

THE CASE FOR CONSERVATION TEAMS

In the last *Acorn*, I discussed how new technology can improve on ancient technique — if picking seed even rises to the standard of “technique.” In many ways, new technology can make the Sangha more efficient in pursuing our mission: the conservation of native-plant communities. But with a full-time staff of only four people, no matter how efficient we become, we can only achieve so much.

If you volunteer with us regularly, you’re probably used to hearing Lisa lament about what sites she simply couldn’t collect seed from this year. Or me groan about delays in some upgrade at the Wild Plant Nursery. Or Chris gripe about his pet stand of invasive *Paulownia* at the Marie Butler Leven Preserve. It always seems this way: if only we had a few more hands on deck, we could get so much more done.

The situation is even more extreme for our Tree Bank, which works along the Dominican Republic / Haiti border. The Tree Bank only had three part-time in-country staffers to begin with — and the most important one, Gaspar Pérez Aquino, died in September. With its nursery, coffee groves, nature reserve, forest easements, and farm-credit program, the Tree Bank was ludicrously understaffed even before Gaspar died. (For more on the Tree Bank, see page 3.)

But adding staff is very expensive, and we just can’t afford it. So we needed to find another way forward, and that’s what brought us to the idea of creating multiple self-directed Conservation Teams, both at home and in the Tree Bank project area.

We’re a tiny organization and we know how to do a lot with a little. We run the DC region’s largest local-ecotype native plant nursery; every year our 600 or so volunteers are at work in more than 50 of the region’s parks and schoolyards. The Tree Bank is working on 40 small-holder farms and has so far protected or restored 225 acres of threatened tropical forest.

All of that progress is built on the generosity of our members, volunteers, and donors. Our Conservation Teams will be a natural

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SUPPORT YOUR TEAMS!

Teamwork isn’t free, even when team members are volunteers.

Some of our DC-Area costs:

Staff time for training, coordinating, and managing data.

Tools and equipment for team members,

More nursery supplies, since our nursery teams will boost production,

And for our Tree Bank teams, a heap of electronics:

A laptop computer, cell phones so that we can talk to team leaders, GPS units, and at least one photovoltaic charging panel and battery. (The Tree Bank conserves and restores forest along the Dominican Republic / Haiti border.)

A TEAM-BUILDING MATCH:

Two very generous anonymous donors have pledged to match the first \$50 of every donation that the Sangha receives! We hope that you’ll do your part to drain their bank accounts in our favor.

The match is in effect through January 16 — but don’t forget: if you want to claim a 2014 tax deduction for your donation, you must write your check before the year-end! For donation information, see the back page or use the enclosed card.

Photos: Above, in October, colleagues and volunteers gathered Indiangrass (*Sorghastrum nutans*) seed for our Wild Plant Nursery, from a northern Virginia meadow. Below, in November, neighborhood residents, GW Community School students, and other Sangha volunteers teamed up for a planting and invasives pull in Fairfax County’s Rutherford Park. Note huge pile of nasty (but now dead) “ornamental” invasive grass on right.





It may not be obvious, but part of the fix here is ... more data.

The Sangha has been working on ecological restoration projects in northern Virginia for 16 years; we've been working on the Tree Bank, along the Dominican Republic / Haiti border, for eight years. In the course of all that work, we have accumulated quite a lot of experience. We know some things. By "we" here, I mean not just the Sangha's staff, but also our Tree Bank farmers, our DC-area volunteers, and many of our donors. We have created a network of understanding that drives our work forward.

But as the scale of our work has grown, the things that we don't know are becoming ever more apparent. Why did this planting fail and that one flourish? What happened to the orchid population in this forest? What's the best way to break the grip of Japanese honeysuckle in this meadow? Is it worth planting trees along a stream bank infested with oriental bittersweet and multiflora rose?

Of course, we already have a pretty good idea about what will work in most contexts, and what won't. Experience is an excellent teacher! But forests and meadows are mysterious places and you don't have to spend much time in them to reach the limits of your understanding. So even though most of our work is based on widely accepted procedures, we can never assume that there isn't a better way to do things.

Natural systems are continually changing; so is the economic and social environment, and so is our understanding. What seemed like the best option ten years ago may no longer be such a great idea. Restoration work can be expensive and the Sangha isn't rich, so at this point in our development, I think that we have a duty to try to measure our effectiveness as best as we can, and to experiment. It's true that testing and measuring can be expensive — but probably not as expensive as leaking resources into procedures that don't really measure up!

Metrics are especially important in situations that are poorly understood to begin with — like mid-Atlantic meadow restoration, or practically any aspect of forest conservation on Hispaniola.

After all these years, our projects are now big enough and old enough to begin telling us important things. Over the course of the coming year, we plan to start asking our sites what they know. In both northern Virginia and the Hispaniolan border country, we're planning more sophisticated mapping, more tracking of ecological change, more inventories (identification of species present on our sites), and clearer cost appraisals of our activities.

We're also planning more experiments. Most of these will have to be multi-year trials in order to yield meaningful results. Here are two examples, one from each of our project areas:

For the Tree Bank, we want to know whether interplanting coppiced rows of native leguminous trees with beans can produce stable bean yields with little or no expensive, artificial fertilizer. (Translation aid for previous sentence: coppicing is the practice of regularly cutting back a tree's limbs. "Leguminous" means species in the bean family; many leguminous species can increase soil fertility.) If this approach can keep soils healthy, it may help reduce illegal deforestation, as in the photo above. Those

trees were cut, not for timber, but to free up fresh soil for crops.

For the DC-area, we want to know whether our technique of scythe-based hand mowing can be an effective long-term option for the control of certain invasive species in meadows. (We have some data on this subject, from our work at the Occoquan Bay National Wildlife Refuge, but much more investigation is needed.)

You can help us expand our understanding. If you live in the DC area, you can volunteer for one of our Conservation Teams. And no matter where you live, you can make a year-end or new-year donation. (See the donation information on the back page.) Together we can learn more — and do more.

— Chris Bright, President

3 BIG TREE BANK MYSTERIES

1. **How many of the region's native tree species are in decline?** *Probably most of them, but we don't know — and neither does anyone else.*
2. **Are our Credit Reserves big enough to stabilize resident bird populations?** *Maybe for some species; probably not yet for most, but nobody knows.*
3. **Could we eventually restore enough forest to arrest the regional trend towards more drought?** *You guessed it — nobody knows.*

More data would mean more strategic activity objectives. (For an outline of Tree Bank activities, see last April's *Acorn*.)

Photos: Above, illegal slash-and-burn in a national park within our Tree Bank project area, near the DR / Haiti border, photographed in 2012. At right, in October, Matt and students removed unneeded deer protection from an established stream-buffer planting in Eakin Community Park, in Fairfax County, Virginia.

HOW TEAM-BUILDING WILL HELP THE TREE BANK

In September, when the Tree Bank's Director, Gaspar Pérez Aquino, died unexpectedly, nearly all of the program's work was interrupted. (See the November *Acorn*.) Gaspar was a talented administrator, an authority on local forests and agriculture, and a community leader in Los Cerezos, the settlement where the Tree Bank is based. (The Tree Bank works along a section of the Dominican Republic / Haiti border to improve small-holder farm income and restore forest.)

Many of the 40 farmers in our program were deeply dispirited and uncertain about the way forward; many wondered if there even was a way forward. One of their biggest concerns was that Gaspar's death left them with no "tecnico" — no one with formal, technical training in agriculture and forestry.

And yet we knew, from years of collaboration, that the community was its own best information resource. For routine work, just about everything that we need to know is already known — by someone, just not the same person for every topic. Of course, it's true that we will need to relearn some things. It's also true that many mysteries remain about forest conservation in this region. (See the article opposite.) But the community's experience is a solid asset, and we can draw on it with confidence.

We also knew that the Tree Bank's program activities were sound. We knew that from eight years of working with Gaspar to develop those activities, and from seeing the results. So what we needed was not a new way to handle plants and soils, but a new way to handle ourselves. We needed new procedures.

You can see where this is headed: at this point in the program's development, our best option is not to try to "replace" Gaspar, who in any case has no clear successor within Los Cerezos. We need instead an approach that uses talent wherever we find it. And that is best done with teams. Here is what we're planning:

We want to manage as many Tree Bank activities as possible — our Forest Credit program, our Rising Forests Coffee, and so on — by creating a set of three-person teams, each of which is focused on a major activity or project. (For a diagram of Tree Bank activities, see last April's *Acorn*.) Each team will have an agenda with an approximate deadline, and of course each will be able to rely on our support if they need help. Successful completion of an agenda will trigger a little premium payment to each team member. This approach will:

Provide farmers with a little additional direct income,

Create more opportunities for learning,

Encourage personal initiative,

Accommodate more overlapping activities within the program as a whole, and

Improve program stability, not just because it will create value on the farms, but also because it will create a fund of expertise within the community.

We have already established our first team — for Rising Forests Coffee. More teams will come together in the new year. If this approach makes sense to you, we hope that you'll support it. Please consider making a year-end or new-year contribution to the Tree Bank! For donation information, see the back page.

WHAT THE TEAMS WILL DO FOR OUR DC-AREA WORK

We are focusing our DC-Area Conservation Teams on two very important places: our Wild Plant Nursery and the Marie Butler Leven Preserve. That double focus will bring our team approach to both of the major components of our local work: propagation and restoration. We have already begun meeting with Team Leaders and will continue to organize and train them through the winter so work can begin in earnest this spring. If you're interested in joining a team, it's not too late to volunteer! Email me, Matt Bright, at mbright@earthsangha.org.

The Team Leaders at the nursery — "Nursery Supervisors" — will be responsible for day-to-day nursery tasks like watering, sowing, transplanting, weeding, some basic facilities maintenance, and overseeing other volunteers. Already, Joan Gottlieb has been leading rambunctious student volunteers from Springfield Estates Elementary School on winterizing and mulching chores.

We have three Supervisors so far. They will greatly increase the nursery's effectiveness, and their role will take full advantage of our extensive nursery renovation. Supported by generous grants from the Shared Earth Foundation and the Luck Companies Foundation, Sangha staff and volunteers have extended or remodeled nearly 10,000 square feet of container yard and made numerous other structural improvements. We will also continue to use the National Park Service's greenhouse facilities at Daingerfield Island in Alexandria.

The nursery is bigger and busier than ever before. Over 300 species are in our system — and there are always a few demanding special attention. Maybe the *Rosa palustris* is being chewed up by Japanese beetles. Or the *Hydrangea arborescens* is too soggy. Or the *Viburnum nudum* is rooting outside its pots, et cetera, et cetera.

With the Nursery Supervisors managing this type of work, our staff will have more time for specialized tasks. Lisa will be able to collect more seed, examine more sites, and meet more often with our

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public-agency partners. I'll do more seed collection too, and I'll be working on our ArcGIS field surveys. (ArcGIS is mapping and database software.)

While the Nursery Supervisors cover the supply side of ecological restoration, our Conservation Team Leaders at the Marie Butler Leven Preserve will cover the demand side. Marie Butler Leven is our top priority DC-Area site for 2015, and the first order of business will be attacking the invasive alien plants that still infest this 20-acre park.

So far we have six Conservation Team Leaders. Each has been assigned a badly-invaded, high-visibility section of the Preserve. Each will lead a volunteer crew to tackle a range of invasives — herbaceous and woody; vines, shrubs, and groundlayer plants. And each will have his or her own field schedule, which you will be able to see on our website, and follow on our email list. In addition to the Leader activities, we will continue to hold larger field events at Marie Butler Leven — plantings, for example, and educational events for schools.

Our Leaders are experienced in the field, and well-connected to local conservation efforts. Almost all of them are long-time Earth Sangha volunteers, Arlington Regional Master Naturalists, or have other professional or amateur naturalist bona fides. In addition to their work at the Preserve, we are confident that they will bring fresh perspectives to our work as a whole.

Marie Butler Leven has excellent credentials too. Located in the McLean section of Fairfax County, it's the perfect park for launching this new program. We started working here with the Fairfax County Park Authority in 2004 and we know the Preserve well. There are several ecologically significant areas — the little gorge drainage hosts three species of *Trillium* — and there are some interesting man-made features, like our soon-to-be-renovated rain garden. The Preserve is also an excellent venue for educating the public about plant communities and ecological restoration. Our Leaders won't just be pulling weeds; they will also play an interpretive role, by introducing visitors to the Preserve's vegetation.

This Conservation Team approach is not just about restoring the Preserve and the other parks where we are working. It's also about making the Sangha bigger, more effective, and more coherent in the way that it works.

Up to now, just about all of our activities depend directly on our staff, and that limits what we can do. If I'm fixing irrigation lines at the nursery, I'm not leading volunteers at Marie Butler Leven. If I'm leading volunteers, I'm not collaborating with Katherine on a grant proposal. Of course, staff time is always in short supply — but we can make far better use of it by opening up our field and nursery activities to all of the "amateur experts" who have generously donated so much of their time to our projects over the years. (Of course, we still need to maintain clear accountability — that's a function of staff time that never goes away.)

Teams don't mean that our staff is going home! We'll all still be out in the field, too. Everyone on staff has a personal commitment to practical, hands-on conservation — the kind of work that has made the Sangha an "outdoor home" for so many of our volunteers. So don't worry! Poison ivy, black locust thorns, blood-sucking insects — we're looking forward to sharing the full field experience with all of our volunteers in 2015, and in the years to come.

— Matt Bright, Conservation Coordinator

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extension of that relationship. The Team approach will tap into the collective experience of our volunteers (DC-area) and farmers (Tree Bank) in a much more collaborative way. It will create opportunities for our partners to have a much greater voice in our work — both on technical matters, and as interpreters to the general public.

We've started discussing the team concept with both our DC-area volunteers and our Tree Bank farmers, and the response has been overwhelmingly positive. We hope you'll feel that way too! See inside for an explanation of how our teams will work.

— Matt Bright, Conservation Coordinator

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, 10123 Commonwealth Blvd., Fairfax, VA 22032-2707 | (703) 764-4830 | earthsangha.org. Complete program information is available on our website.

A donation match! Two very generous donors are sponsoring a year-end and new-year match of the first \$50 of every donation we receive through January 16. Don't forget: to claim a 2014 tax deduction, you must donate before year-end!

Want to volunteer or meditate with us? We work with volunteers at our Wild Plant Nursery and our field sites in northern Virginia. We meditate in the Del Ray section of Alexandria on Tuesday evenings. For more information see our website or call Lisa Bright at (703) 764-4830.

The Acorn: Our newsletter is produced with "print on demand" technology, which consumes far less energy and materials than does conventional printing. This paper is 100% post-consumer waste recycled, process chlorine-free, and manufactured entirely with wind-generated electricity. This issue copyright © 2014, 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."



From the Tree Bank's farmers To you:
Rising Forests Coffee.
Revive yourself.
Restore the forests.
earthsangha.org/coffee.html

TEAM-UP WITH US!

To join a DC-Area Team, contact Matt Bright at mbright@earthsangha.org or (703) 764-4830.