

## BRINGING BACK THE MEADOWS

This spring, we launched our first-ever meadow restoration projects. Meadows are more than just “fields”—green places that aren’t dominated by trees. (Many local fields are just expanses of alien forage or turf grasses, with various other invasive alien species mixed in.) Real meadows are mixtures of native grasses, with other native herbaceous plants and a few low-growing shrubs as well. Such places are among the most diverse plant communities in the Mid-Atlantic region; they are also home to a wide range of native insects, birds, and other animals, some of which can live nowhere else.

Even under natural conditions, meadows might never have made up a large proportion of the mid-Atlantic landscape, most of which is naturally forested. Today, natural meadows are increasingly rare, and local efforts to conserve them are few and far between.

The Sangha has launched three meadow projects, all of them within Fairfax County, Virginia. A photo of each appears on this page. Our efforts thus far are very modest—as they should be, since meadow restoration is complicated, and we are just beginning to learn. This spring, we have done some limited planting on all three sites,

partly to begin establishing appropriate species, and partly to develop planting procedures suitable for meadows. We are also controlling invasive alien species, developing inventories of the species present on two of the sites—the other site, the one at Rutherford Park, is basically just turf grass—and propagating more and more meadow species at our Wild Plant Nursery.

As with our other sites, we expect to be working on our meadows—and learning from them—for many years to come. If you would like to help, please get in touch! (See page 3 for our contact information.)

**Photos:** Above, one of our six starter plots at Rutherford Park, in Fairfax County, Virginia. This area, formerly turf, is to be restored as wet meadow. Below left, the BLM's Jinx Fox (flags in pocket) and American Grasslands Conservancy President Randy Pheobus (behind Jinx) join AOL volunteers at our Meadowood meadow site. Below right, at Fairfax County's Waples Mill Park, volunteers do our first ever meadow planting. All three photos were taken in May.  
**On line:** For more updates, visit [earthsangha.org/news.html](http://earthsangha.org/news.html).





# SHADE FOR THE TROUT

In May, a contingent of Earth Sangha volunteers and plants arrived on the banks of the Thornton River, near Virginia's Blue Ridge Mountains, to restore riparian (stream-bank) buffer in an area that had been disturbed by a dam removal project. Our buffer planting was the first step in what we hope will become a long-term collaboration with Trout Unlimited, a national stream and river conservation organization.

TU is working to restore eastern brook trout to much of its native range in the eastern US. Pollution and other forms of habitat degradation have greatly reduced the abundance of this beautiful animal—and eliminated it entirely from many drainages. In addition to bringing back the trout itself, brook trout restoration is an excellent way of approaching problems within an entire watershed. That's because brook trout require high-quality habitat: cool, clean water, undisturbed channels, a stream bottom that is not fouled by sediment, and so on. Brook trout restoration is a whole-landscape enterprise.

The Thornton is one of the rivers that TU considers promising. The dam removal, which TU organized last year, was a major improvement; with the dam out of the way, the river's native fish once again have access to their ancient foraging and spawning grounds. And once the dam was out, TU invited us in to restore riparian buffer.

Riparian buffer is the vegetation that grows along stream and river banks under natural conditions. Buffer reduces erosion, stabilizes stream banks, and filters rainfall. Buffer also shades the channel, thereby keeping the water cool—an essential habitat requirement for brook trout. (Under natural conditions, streams and rivers in the Virginia piedmont would have been heavily buffered, mostly by forest. Stream reaches in full light would have been infrequent.)

In the photo above, volunteers are planting the dam removal site; we also planted another buffer-deficient site nearby.



The planting is an important catalyst to the regrowth of the forest. To some extent, the forest might have returned on its own, but there are many invasive alien plants growing in the area, and these species tend to create thickets that suppress tree seedlings. The area is also heavily browsed by deer; deer browsing kills many native tree seedlings if they aren't protected with tree shelters. For these reasons, planting—and the use of tree shelters—was the best management option. In preparation for this planting, we had begun propagating riparian species from piedmont Virginia at our nursery last year. Here as elsewhere, we prefer to plant with local stock.

As of early June, the planting was doing well. We hope to do many more such plantings along piedmont streams and rivers.

## RESTORING NATIVE BUFFER AT ROACHES RUN

In April, we began our first collaborative project with the National Park Service: An effort to restore riparian buffer along the tidal pond in the Roaches Run Wildfowl Sanctuary in Arlington.

On a first visit, Roaches Run may not seem like much of a sanctuary. A very busy stretch of the George Washington Parkway runs along its eastern side; a major rail line runs along its western side, and there's a Reagan National Airport runway less than 100 yards from its boundary. It's a very high-decibel park! But despite the noise, Roaches Run contains valuable wetland, which is home to some plants unusual in the DC area, such as Virginia sweetspire (*Itea virginica*). The park also hosts many species of waterfowl and other birds.

We are working along the eastern edge of the tidal pond, an area had been dominated by the densest infestation of Amur honeysuckle (*Lonicera maackii*) that we had ever seen—and that's saying something. (Amur honeysuckle is a large shrub from northern Eurasia.) The Park Service, which manages Roaches Run, began removing the honeysuckle last year. By this spring, enough progress had been made to begin replanting in some areas. But there is still a huge expanse of honeysuckle to remove, and other invasives to contend with as well.

We are helping the Park Service with both invasives control and planting. It's rough going—but our Park Service colleagues are expert guides, careful planners, and a lot of fun to work with. And even though we've only been at it for one season, we can already see improvements along parts of the shoreline.



**Photos:** At top, in May we planted along the Thornton River, in Virginia's Rappahannock County, as part of a brook trout restoration project run by Trout Unlimited. Above, in April volunteers began restoring native vegetation along the tidal pond at the Roaches Run Wildfowl Sanctuary in Arlington. Our work at Roaches Run is a collaboration with the National Park Service.

**On line:** For our current volunteer activities, go to [earthsangha.org/act/vol.html](http://earthsangha.org/act/vol.html).



# LOANS FOR THE FARMS

Our Tree Bank / Hispaniola is nearly ready to launch the farm credit program that we have been planning for over a year. The Tree Bank is working to improve the lands and incomes of impoverished farmers in the Dominican Republic, along a portion of the Dominican Republic – Haiti border. Our Tree Bank nursery supplies trees for agroforestry projects such as coffee and citrus groves. It also supplies native trees, propagated from the region's remnant forests, for forest restoration projects on local farmland. For the forest projects, the Tree Bank also provides financial support.

The credit program will make the Tree Bank more useful in both a social and environmental direction. The environmental gain will be in forest conservation: In exchange for the credit, our farmers will have to conserve forest patches still extant on their lands. These forest patches are the region's most important remaining natural assets. Many of them are riparian, so they help stabilize local streams; they are also home to most of the surviving wildlife—and of course we depend on them for tree seed. As far as we know, this will be the first conservation easement program that our project region has ever seen.

The social gain will also be unique: Our program will be the region's first reliable source of low-cost credit available to poor people. Affordable credit will help stabilize small farms and make it possible—probably for the first time in most cases—for farmers to plan for the long term. It is true that there is already some farm lending in our region, but it is difficult for our farmers to qualify for loans, and even when they get them, the interest charged is more than the worst credit-card deal you ever heard of. A good loan charges the equivalent of 43% APR. (Our loans will charge a very modest flat rate, rather than compound interest; as soon as the entire package is settled, we will publish that rate and all the other details.)

One credit caveat: Although, by American standards, our loans will be small, ours is not a scenario in which amazing things can be done with, say, a \$10 bill. That's because, even though our people are poor, the costs of doing business in their locale can actually be pretty high. We hope that, eventually, our credit program will help promote a more robust farm economy. Our immediate goal is to provide our families with lines of credit, which they can draw on to buy basic farm supplies, and repay with harvest proceeds.

We expect to fund the credit program from individual donations. We hope to build on the success that we had last year raising money for the Tree Bank truck, since the two efforts complement each other so well. The truck is essential for restoring forest; the credit is essential for conserving the patches of forest that remain.



**Photos:** Above, a logging truck trundles out of the hills in our project area, along the Dominican Republic – Haiti border. Below, our truck, parked beside the house of Project Director Gaspar Pérez Aquino, stands ready to undo some deforestation. (Our apologies for the quality of that photo.) An approximate quote from the logger, above, when he saw Chris Bright, the Sangha's President, taking his picture: "I'm going to New York! I'm going to be famous!"

**On line:** For more on the Tree Bank, go to [earthsangha.org/tb/tbmsn.html](http://earthsangha.org/tb/tbmsn.html).

## EARTH SANGHA

BUDDHIST VALUES IN ACTION

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 or donate on our website. We will send you a receipt and include you in our mailings. Contact us at: Earth Sangha, 10123 Commonwealth Blvd., Fairfax, VA 22032-2707 | (703) 764-4830 | [earthsangha.org](http://earthsangha.org). Complete program information is available on our website.

**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 and Wednesday 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 2010, Earth Sangha.

**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."







**G**olden Alexanders, black snakeroot, swamp doghobble, pinxterbloom: Do these sound like “common names” to you? Fantastic constructions—but in botanical parlance, they are indeed common. These particular names refer to four of the more than 180 plant species that we are now growing at our Wild Plant Nursery, in Springfield, Virginia. All these species are native to the eastern Mid-Atlantic, and we are propagating all of them directly from the wild.

Lisa Bright manages this enterprise. Lisa and crew regularly pick their way into local forests, fields, wetlands, and various improbable little scraps of remnant vegetation in search of seed, which is then grown out at our nursery; the resulting plants are used for ecological restoration projects—both our own and those of our partner agencies.

Deer tongue, Indian cucumber, blue cohosh! (Three more.) What makes a common name common? Really only two things: A common name is not a formally adopted botanical name, and a common name gained currency among people who lived with and recognized the plant in question—people who, in one way or another, appropriated the plant into their culture. Of course, strictly speaking, everyone who resides in the greater Washington area is still living with these plants, but very few of us recognize them, so their names are now puzzles.

But these are puzzles worth solving. For example, witch-hazel got its common name because it reminded settlers of a European shrub that had long been used for “dousing,” the magical process of finding underground springs by cutting a forked bough of hazel, holding it with one branch in either hand, and walking in likely spots until the bough tugs its handler towards water. So our witch-hazel became the plant of choice for American witches, at least when they were working as agricultural consultants. The forests are full of stories.

Purple lovegrass, sneezeweed, partridge pea: The plants are mostly still out there, although, if things keep going the way they currently are, many of them will fade from the landscape, just as they have faded from our culture. But there’s a way to prevent that: We can care for them.

We built the nursery to create a cycle of rehabilitation. The seed comes out of natural areas (with permission of the owners, of course); the resulting plants are grown out at the nursery, and then planted back into appropriate habitat. The process helps our client species and advances several other items on the local conservation agenda: Controlling invasive alien plants, preserving native pollinators (for example, native butterflies, moths, and bees), stabilizing streams, conserving soil. Eventually, we hope, our work will improve survival prospects not just for individual plant and animal species, but for entire natural communities.

Our nursery is tiny by commercial standards. It only covers an acre or so, but we are trying to use that space as efficiently as possible. We have nearly finished building our “growing troughs,”—you can see some of them in the photo above—and we are improving the watering system. Efficient management of water is a high priority for us. We still need to build a big set of cold frames, and we have to improve our fencing and create better work spaces between the troughs.

Amidst all this business sit the plants. We have more species, and more individual plants, in propagation than ever before. We are also trying to grow for more projects, and more kinds of projects than ever before—and we’re doing all of that on a budget that is practically microscopic. We expect to spend about \$56,500 on the nursery this year, for everything from soil to salaries. That’s a small but powerful investment. The rationale is: First help the plants, and then the plants will show us how to help the landscape as a whole. You can learn a lot from plants. We invite you to see for yourself!

**Photo:** Summer Intern Matthew Bright, standing in the “growing trough” section of the Wild Plant Nursery container yard, reflects on the nursery’s role in creating opportunities for the conservation of Mid-Atlantic native-plant communities. Or he could be thinking about something else.

**On line:** For more on the Wild Plant Nursery, go to [earthsangha.org/dca/wpn.html](http://earthsangha.org/dca/wpn.html).