

Brook Notes

A publication of the
DOAN BROOK WATERSHED PARTNERSHIP

SPRING 2007

Connected: Your Yard and the Doan Brook



Eagle Scouts pull invasive Yellow Flag Iris (a fugitive from local home gardens) from the Nature Center marsh.

Caring for the environment begins at home. We try to imbue our children with the idea that environmental stewardship is not accomplished on one day, like Earth Day, each year, but everyday, in everyday places. Summer is a perfect time to embrace a new approach to yard work that can actually help keep the Doan Brook and Lake Erie clean. Indeed, stewardship of our home landscapes doesn't have to be classified as a chore!

Natural and native landscaping is guided by the fundamental principle of ecology: interconnectedness. In an urban landscape, our yards link together, like a massive habitat quilt, to create a larger ecosystem. Like any system, all parts must function well in order for the whole to stay healthy. If we help the Doan Brook stay clean, the watershed will return the favor by cleaning air and water and providing habitat for birds and butterflies. Tending to our backyard homes can either work in harmony with our environment or against it; unfortunately it's usually the later.

- In the United States each year, we or our neighbors use about 67 million pounds of pesticides a year, that's approximately four times higher than is used by the agricultural industry (Feagan, 1997)
- 32 of the 34 most widely used pesticides and herbicides in lawn care have not been tested for health risks (Daniels, 1995)
- The incidence of childhood leukemia is approximately 6 1/2 times greater among families using lawn pesticides than among those who do not (US National Cancer Institute, 1987)
- One hour of mowing with a gasoline powered mower emits an equivalent amount of greenhouse gases, in particular CO₂, to 350 miles of auto travel (Stein, 1993)
- On average, between 30 to 60 percent of municipal fresh water is used for watering lawns (Hough, 1995)

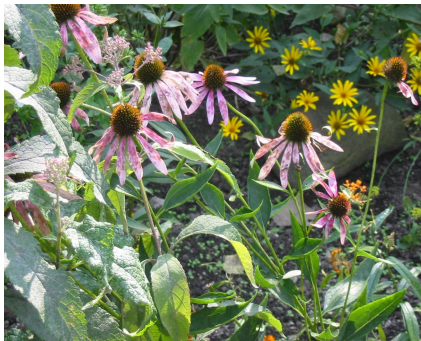
The Laudable Lawn and Home Habitat Program (LLHH) was created in partnership with the Nature Center at Shaker Lakes. Call the Partnership office or the Nature Center this season to get involved with programming, to buy native plants, tend a butterfly garden or enlist landscape architects to assist you with your own home habitat. You and your family can participate in many ways. At the Nature Center's website, www.shakerlakes.org, you will find the "LLHH Go Green" form; just download it and keep track of the environmental changes that you make in your yard, or better yet, the green activities you already practice. Not only do the practices create a healthier habitat at home but also for the Doan Brook Watershed. To learn about upcoming programs and sign up for the LLHH program, please call Tori Mills at 216.321.5935, ext. 234, or email her at mills@shakerlakes.org.

The non-profit Doan Brook Watershed Partnership's 11-member Board of Trustees provides for broad representation throughout the watershed and includes:

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BEAUTY AND SUSTAINABILITY: GARDENS FOR THE 21ST CENTURY

Every gardener knows that to nurture the nature around us is a gift; the benefits to mind and body are manifold. With global climate change and resource scarcity, the 21st century requires a new vision to maximize the benefits of home landscaping. This innovative vision seeks to synthesize the best of the past with current-day innovations. It will be up to each of us to take individual actions and tend the earth that is closest at hand. As urbanization entwines with the natural



Purple Coneflower (Echinacea purpurea) is native to our region and an excellent butterfly plant.

systems upon which we depend, our communities can inspire beauty while creating habitat, celebrating water and rejuvenating soil.

If we incorporate sustainable landscaping into our communities, we value nature's role in our cities and suburbs. We value the Doan Brook as critical to the quality of our drinking water.

Native plants are well adapted to local climatic conditions, improve soil fertility, reduce erosion, and often require less fertilizer and pesticides than many alien plants. These characteristics save time and money and reduce the amount of harmful runoff threatening the aquatic resources of our streams, rivers and lakes.

Consider the following ways to create beauty and sustainability in our 21st century landscapes

Restore Our Home Habitats and Our Regional Environment

- Enhance ecosystem functions that celebrate water and biodiversity.
- Protect natural wetlands, streams and rivers, incorporating natural drainage into design
- Use low-impact construction techniques while building and planting.
- Provide food, shelter and water to support local wildlife
- Plant like nature - in dense layers - avoid mulch wastelands

Protect Trees

- With help from a professional arborist, plant trees for shade and in-house energy savings
- If trees must be removed, early in the construction process is best.
- Avoid grade changes near trees and mounds that smother roots

Conserve Energy and Water

- Minimize lawn, so mowers and blowers consume less fuel and money; reduce pollution and noise
- Minimize household energy use, plant wind breaks and shade trees
- Use hand rather than power tools, electric rather than gas tools, 2-cycle engines are the worst offenders
- Rely on rain: between rain and irrigation, only an inch per week is necessary (a tuna can measures an inch perfectly!)
- Celebrate NE Ohio's great resource: capture rain with rain barrels, rain gardens, green roofs, bio-swales and French drains

Laudable Lawns

- Adjust attitudes towards weeds, tolerating a few weeds in favor of heavy, cosmetic pesticides
- Convert lawn to alternative ground-cover or gardens to minimize its footprint

- Plant no-mow seed when planning lawn sections
- Set mower blade height at 3"
- Test soil to determine nutrient needs
- Use plant-based or organic fertilizer, instead of synthetics which contain heavy salt and chemicals

Eco-friendly Materials

- Research a material's origins for endangered habitats and contents for toxicity
- Be aware: some materials become harmful as they break down
- Use solar lighting or energy efficient fixtures
- Install permeable pavement

Plant to support the web of life

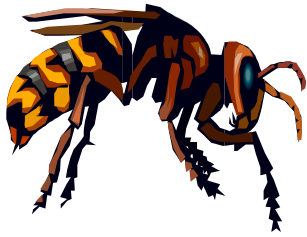
- Reduce yard waste by leaving nitrogen-rich grass clippings on your lawn or composting leaves and grass into rich humus
- Avoid pesticides - use natural



Suzanne & Robert McGraw converted their backyard to a more sustainable, urban habitat.

- controls, such as the Integrated Pest Management methodology
- Use native plants, as they are best adapted to local soils and climate
- Learn which plant species are invasive in our region, then work to eradicate them

Spread the word and volunteer to create more sustainable landscapes!



The Birds, the Bees... and the Brook

Choosing plants that are native to Northeast Ohio this spring and summer is a wonderful opportunity to support our hard-working pollinators. One hundred thirty U.S. crops are pollinated by wild insects, and the value of pollination to U.S. agriculture is estimated at \$40 billion per year, when livestock feed crops are included. Worldwide, pollinators are worth \$200 billion annually in crops such as bananas, beans, lettuce, almonds, tomatoes cucumbers, pumpkins, cocoa, peppers, strawberries, and countless others. Unfortunately, native bees and other pollinators are in decline due to the loss of habitat to development.

Habitat fragmentation and broken "nectar corridors", used by migrating pollinators such as bats, butterflies and hummingbirds, contain less food and often heavy pesticide applications. These fragmented habitats may also be too far apart to allow for the interchange of pollen. In the end, plants cannot survive without the pollinators and the pollinators cannot survive without the plants. Habitat is a combination of food, water, shelter, and space that meet the needs of wildlife. Even a small yard can be landscaped to attract birds, butterflies, beneficial insects, and small animals. Our communities are fortunate to have the Doan Brook riparian corridor, which acts as an intact habitat to attract pollinators. As homeowners, we can enhance and expand the Doan Brook habitat corridor.

Native plants are not only adapted to local animals but to our climate as well. Unlike exotics, native vegetation often requires less water, fertilizer or pesticides because they have evolved to survive here over time. Less chemicals, nutrients and even storm-water filtering into the Doan Brook creates a healthier aquatic ecosystem and a cleaner drinking water source, Lake Erie.

Who's behind your morning coffee? Meet our Pollinators:

Bees : In the United States, there are nearly 5,000 different species of native bees. Most of them are solitary, friendly bees that nest in ground or burrow in dead tree limbs. These bees do not have hives to protect them, so they are not aggressive and rarely sting. Honey bees are believed to be responsible for 80% of all pollination in the United States. Bees are extremely sensitive to many commonly applied insecticides. If you must use chemical insecticides in your garden, apply them in the evening when bees are less likely to be active. Bees are attracted to most flowering plants, and are especially fond of blue and yellow flowers. Try planting your garden to have different species blooming in the spring, summer, and fall. Providing bee habitat in your yard can increase the quality and quantity of your fruits and vegetables while assisting in the survival of our threatened pollinators.

Butterflies : Butterflies depend on a wide variety of plants. Not only do they need different plants for each stages of their life-cycle, but they have different preferences for the taste and color of nectar. Plant a wide variety of plants, some host plants for the larval stages, as caterpillars will eventually evolve into butterflies, and some plants that produce nectar. Put some flowers in a sunny spot because butterflies need to bask in the sun to stay warm.

Beetles: Beetles pollinate about 88 percent of all flowering plants in the world.

Hummingbirds and Bats : Although birds and bats and other mammals don't pollinate many species, they are vital for the plants that rely on them for reproduction. Bats alone bring us many products, including vanilla, dates, tequila, and bananas. In the western United States, rufous hummingbirds pollinate wildflowers that help recolonize deforested areas and prevent erosion. Native wildflowers for hummingbirds include the beardtongue (for early summer), New Jersey tea (for mid-summer) and Bergamot (for late summer). These wildflowers are native to the Midwest and eastern Great Plains and thrive on well-drained, sandy to sandy-loam soils. Bergamot will also do well on heavy clay.

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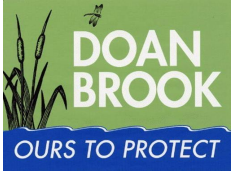
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*"The Doan Brook Watershed Partnership...
 protecting and restoring Doan Brook
 and its watershed"*

DOAN BROOK—OURS TO PROTECT

Before and After!

SOUTH BRANCH AT WOODBURY SCHOOL!



SOUTH BRANCH AT SHAKER COUNTRY CLUB!



THE DOAN BROOK WATERSHED PARTNERSHIP!



Last summer, when DBWP Executive Director Keith Jones departed—deciding to pursue full-time work—the DBWP Board used the moment of transition to strengthen, sharpen and embolden the organization’s mission and action plan. With generous support from the Cleveland Foundation, the Board hired organizational consultant, Janus Small, to lead monthly visioning sessions. Our next issue of Brook Notes will be devoted to the new face of the DBWP. Stay tuned!