

## IN THIS

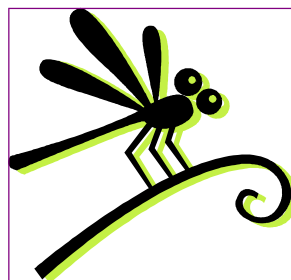
### ISSUE:

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## New Brochure Available

It's been a while in the works, but after some technical detours, we now have an official Stream Team brochure.

It's hard to find good clip art for macroinvertebrates, but I did find a 'stylized' - well I'm not sure-dragonfly, or maybe it's a damselfly. It seems to have three wings and three legs, hmmm. Well it is kind of cute. Our beloved lobster mascot has been replaced.



*A good community outreach tool*

The goal is to provide a nice overview of our accomplishments and purpose without being too wordy. I simplified the mission statement and contact information.

Miami Conservancy has provided printing at no cost- 100 copies for the first run. Any changes we want to make can be incorporated in subsequent print runs.

I hope you'll all share them with your friends, neighbors, and anyone else who lets you bend their ear! The brochure is now available for viewing and printing from the Stream Team web site.

## Water Quality Educators

We are forming a new partnership with middle and high school teachers at buildings in the Wolf Creek Watershed.

The goal is to help implement water quality curriculum in their classrooms—specifically, Brookville and Northmont High Schools, Miami Valley Career Technology Center, and Trotwood Middle School. Our first meeting on June 23rd was well attended.

Montgomery SWCD has some excellent teaching models that could be used more. The stream table, the Enviroscope, and (our newest) groundwater flow model are wonderful resources that help learners visualize natural processes and human impacts as well.

Among other strategies, we'll be conducting a "train the trainer" workshop in August, using the groundwater flow



model. In addition to conducting training for use of the models, we also plan to promote the *Healthy Water Healthy People* curriculum guide.

In the long run, our stream team activities are fertile ground for students interested in learning about 'Citizen Stewardship in Our Watershed'.



Check out our recently updated web site!

...development sites can be innovatively designed to mimic the natural hydrology of the undisturbed site.



Building Community Protecting Water

## Stream Team Web Site

As mentioned at the June 16th meeting, our web site is now officially published at:

[www.wolfcreekstreamteam.org](http://www.wolfcreekstreamteam.org).

I've modified some of the layout to make it more relevant and streamlined. For example, the entire home page fits on a single screen, without having to scroll down. Steve Krieg graciously redesigned the banner at the top. It's a nice collage of photos from our activities.

There are a few new links. One is for the brochure, it appears now on the *About Us* page, in addition to the *Newsletters* page. There is also a second link to the *Volunteer Jobs* list from the home page. The password protected pages are still proving to be a challenge. The software hasn't yet evolved to make it "web editor friendly" for novices with Microsoft programs. Rest assured, I'll continue along in the problem-solving mode ...



Wolf Creek Stream Team - Montgomery County, Ohio

## USEPA Recommended BMPs for NPS

...or in other words, how can the Urban Management Measures publication help improve water quality in your watershed? Of course we don't want to sound *too* much like a government agency, so let's define those acronyms: United States Environmental Protection Agency (USEPA); Best Management Practices (BMPs); and Nonpoint Source Pollution (NPS).

As detailed in the March issue of this newsletter, Montgomery SWCD has already been partnering with Miami Conservancy District to promote Low Impact Development to local governments, engineers, and developers. USEPA's guidelines are

very similar to the engineering techniques prescribed in the Low Impact Development (LID) literature.

The general philosophy underlying LID is that when an area of land is developed for human use (= creating hard or impervious surfaces), rather than designing drainage systems to move storm water off site as quickly as possible, engineers can strive to employ designs that allow water to soak into the ground on site in a variety of ways. If a site has existing swales and wetlands, these functions are already operating, and should not be disturbed. In other words, development sites can be innovatively designed to mimic the natural hydrology

of the undisturbed site. Currently, the standard method for managing storm water is the detention basin. These structures have multiple problems: they're extremely expensive to build and maintain, they present a safety hazard, and are limited only to reducing local flooding. Detention basins do not protect streams from the increased runoff due to development.

The starting point for promotion of LID (urban BMPs) is with local government decision makers, i.e. city councils, township trustees, and planning/zoning commissions. This is exactly where our outreach is targeted: these entities in the Wolf Creek Watershed. So far, the response to this outreach program has been very encouraging.

# Creature Corner : CADDISFLIES

One of the amazing things that we come to appreciate in stream study is the diversity of our quarry....in this case, there are about 1400 species grouped into 21 families in this order of aquatic insect larvae; the name Trichoptera actually means *hair wings*, which you can see on the drawing of the adult below.



### Feeding

Feeding habits of caddisflies cover the spectrum of possibilities: shredder-detritivores, shredder-herbivores, collector-gatherers, collector-filterers, and scrapers. Some are engulfer-predators. So in other words, they eat plants and animals, dead or alive. Nothing like versatility!

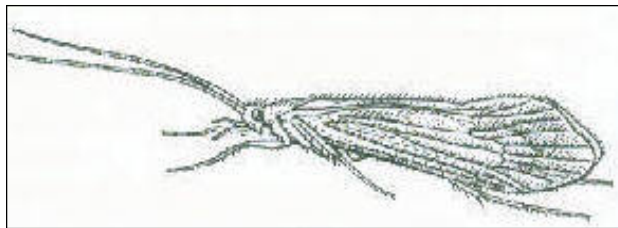
### Life History

They can be described as underwater architects for the staggering variety of cases they build while in the larval form, using an adhesive silk, although some forms are free swimming. The type of case they build is unique for each species. The cases serve a variety of purposes: camouflage, physical protection, food acquisition, or respiratory efficiency. Some species create a current of water within the case that guarantees a fresh supply of dissolved oxygen. They're very similar to moths and butterflies because they build a cocoon out of silk, from which the pupa eventually emerges as fully formed adult. Most kinds of caddisflies have one generation per year, and require up to two years to develop into adults. Adults of most caddisfly species emerge from late spring to early fall.

**Order**  
**Trichoptera**  
**Class I – Pollution**  
**sensitive**

### Ecological Significance

Caddisfly larvae play important roles in the function of freshwater ecosystems. As shredders process coarse plant material, making smaller pieces available for other organisms. Also, filter feeders essentially make larger particles (feces) available to other organisms. They are important food sources for fish, and as adults, for some birds like swallows. Importantly, as we know, they are also indicators of pollution because of their sensitivity. If you enjoy fly fishing, then you think of these organisms as sedges, and might even be able to mimic them when tying flies.



## Learning Opportunities

### Composting Workshop

Contact Linda Raterman, 335-7645

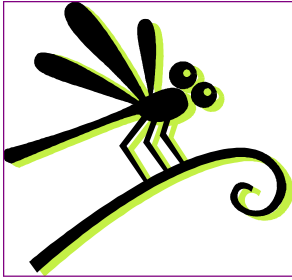
July 18

### Miami Watershed Network

Annual Best Management Practices Tour  
Contact Angela Manuszak, 223-1278 ext. 3263

September 7th





## Wolf Creek Stream Team

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*The Wolf Creek Stream Team is **citizen stewards** joined by our common concern for the health of the Wolf Creek watershed. We are committed to providing long term monitoring data and learning opportunities to the communities of the Wolf Creek Watershed.*

*We are working to **raise public awareness** of and involvement in **water quality issues**, in order to protect, restore and enhance our common water resources for public health, recreation, and wildlife habitat.*



## Volunteer Meeting Held June 16

Those in attendance were: Mary Ann, Deb, Margaret, Meko, Rich, Steve, Kate, and Gus. We had pizza from Carmela's in Brookville (very tasty—thanks Meko for taking care of delivery!). The first order of business was to complete the site monitoring schedules. Secondly, the newly completed brochures were given to members for personal distribution. It can also be printed from the web site.

Then I gave an update about the outreach program Montgomery SWCD is doing in conjunction with Miami Conservancy District, involving what is known as Low Impact Development (LID). The basic principle is that developers can use innovative designs that do a better job of reducing storm water runoff and still make a profit. We are focusing on educating the decision makers first—local government planning commissions. The presentation in Brookville was very well received and will be followed up with a work session to familiarize commission members with the Better Site Design book (published by the Center for Watershed Protection) and review the City's existing zoning language with the goal of incorporating text that prescribes LID designs. Plans are in the works to establish similar working relationships with officials in Clay Township and Clayton.

Watershed updates... The U.S. Army Corps of Engineers study of Wolf Creek is set to commence late July or early August, when their surveyors will be here from Louisville. This project has been two years in the making, and we're eager to follow through with a computer model that local governments can use as a planning tool.

Also, we are forming a new networking group called Water Quality Educators, involving local teachers and Stream Team members Steve, Meko, and Mary Ann. Our goal is to assist / train teachers in the use of Montgomery SWCD's teaching models (stream table, groundwater model, and Enviroscope), and promote use of the Healthy Water Healthy People curriculum guide.

***Next Meeting Date: September 15, 2006***