



Channels

May – June 2012

4526
Stream Teams
Strong!

Information for and about Missouri Stream Teams

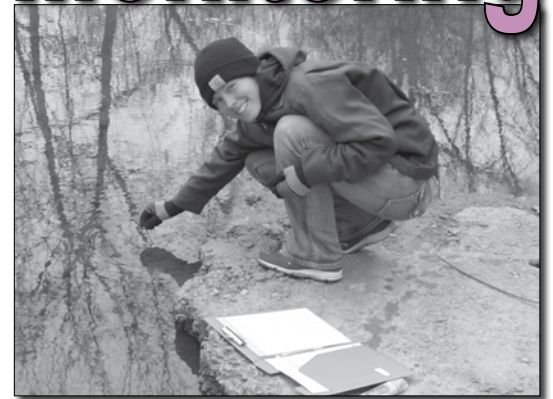
Winter Salt Monitoring

By Darlene Haun, Stream Team Assistant

St. Louis streams carry a heavy burden each winter when salt that is applied to the streets trickles in along with the melting snow. Native freshwater fish, as well as the small invertebrates that are food for the fish, cannot withstand chloride concentrations exceeding 860 mg/L for more than a few hours, depending on the size of the stream and concentration of other dissolved substances. Concentrations exceeding 230 mg/L can kill them after a couple of weeks.

In the winter of 2010, some Stream Team volunteers recorded salt concentrations far exceeding these levels following several snow events. In Grand Glaize Creek, a measurement of over 1000 mg/L was observed. However, no one knew how long those high concentrations lasted. Coordinated efforts are now taking place in St. Louis to document winter chloride concentrations in area creeks.

In the winter of 2011, a group of Stream Team volunteers decided to sample their adopted creeks weekly to determine how long elevated salt concentrations persist. They are interested in how many miles of stream are affected, to



Sarah Wilson (Stream Team 4413) takes her weekly chloride measurement at Gravois Creek.

what extent, and how long it takes the streams to flush out the salts. The sampling itself is easy and can be completed in a five minute stop at the creek. Most volunteers make their weekly creek visits on their way to or from church, exercise classes, or work. Volunteers measure air and water temperature, conductivity, and chloride concentrations at seventeen locations. In 2011, ten streams were visited weekly from mid-December to mid-March.

However, there was very little typical winter weather this year. The St. Louis area had only two snow and ice events. But, both events showed that road salts have the potential to impact aquatic life in at least four of the ten streams sampled. The data gathered this year will serve as a baseline and can be used for comparison during future sampling seasons when winters with more snow and ice prevail.

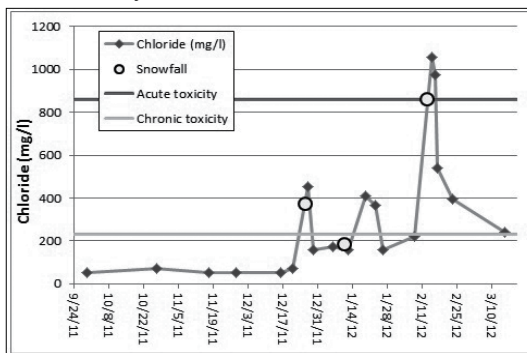
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PRIZES
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Would you like to receive Channels and Streamgrams by E-mail instead of U.S. mail?

Let us know if we should change your mailing preference by contacting us at streamteam@mdc.mo.gov. Be sure to include your name, e-mail, and phone.



Data collected by Danelle Haake (Stream Team 3745) shows the relationship between snowmelt and chloride concentration in Deer Creek.

Did you know ...?

Continued on page 2

Invasive, Alien, & Nuisance Species

Oh My!

By Kat Lackman, Stream Team Biologist

On March 3rd, as the first ever National Invasive Species Week drew to a close, the Springfield Conservation Nature Center was teeming with Department of Conservation volunteers ready to learn about invasive and nuisance species.

Over 60 volunteers representing Stream Teams, Master Naturalists, Forestkeepers, and Nature Center and Range volunteers enjoyed a day filled with informative talks on everything from Asian Carp to Pets Gone Wild. Talks were organized into concurrent sessions which repeated at three time slots, allowing volunteers the opportunity to view as many presentations as possible. Sessions focused on aquatic and terrestrial species as well as the management of urban wildlife.

This was the third year that this workshop has been offered to MDC program volunteers and it has been well received at each location. In the future, it is hoped that a similar workshop can be offered in the Central Region.



Frances Main, MDC Resource Forester for the Southwest Region, presents information on the potential impacts of the Emerald Ash Borer (EAB).

...dragonflies can extend...

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Monitoring Minutes

By Suzy Higgins, DNR Stream Team VWQM Coordinator

Check It Out!

With spring monitoring behind us, it is a great time for volunteer monitors to check their equipment. Are you still using that tired old net you got at your Intro Workshop five years ago? It might be time for a new net. Picking bugs off the net with sharp forceps can create small holes that, over a period of time, can become large enough to let macroinvertebrates escape. Also, go through your field kit and clean things up. Check for worn out items and let us know if you need replacements. We are always happy to replace well-used equipment.

If you have not yet made it to the stream this spring, there is still time to get out before the weather gets too hot. Although many macroinvertebrates will have reached adult stage and be flying around while you work, there should still be enough in the water for you to do your biological monitoring.

But, don't just look at your biological equipment. Check out your chemical kits as well. Give the glassware a good cleaning and clear out any reagent wrappers from the kit. Check your reagents to see if you need to order more, and replace those that may expire before your next monitoring trip. Remember that while we want biological and visual survey data sheets twice a year (spring and fall), we would like chemical monitoring data four times a year, if possible. Be sure to measure stream discharge any time you do chemical monitoring. It is very important to know how much water is flowing in the stream because it gives us an idea of the concentrations of potential pollutants in the water.

Once all of your equipment is in order, don't despair! There are plenty of other Stream Team activities to keep you busy all summer. As always, feel free to contact us with any questions you may have. You may e-mail us directly, or use the new StreamTeam@dnr.mo.gov e-mail address.

Team Snapshots



Diane Oerly (Teams 523 & 2489) accepts the Citizen Award from Darren Thornhill of the Missouri Chapter of the American Fisheries Society at the 2012 Missouri Natural Resources Conference.



Volunteers pose with their haul, removed from the Missouri River floodplain in Kansas City during Missouri River Relief's (Team 1875) Big Muddy Clean Sweep.



Activity Prize Drawing winner Bob Temper (Team 31) ready to take home his brand new kayak. Look at that smile! And, you could be next!



Members of the Cane Creek Crawdads (Team 3857) out for an early spring cleanup on Cane Creek in Taney County.

The Riffle Review

a bi-monthly glimpse of Stream Team activities

Since our last issue of Channels, Stream Team members reported:

- 402 total activities
- 43.37 tons of trash collected
- 8,485 total participants
- 107 water quality monitoring trips
- 33,510 total hours
- 1,175 trees planted

Check out more highlights below . . .

Team 401 The Joachim Stream Team collected 30 bags of trash, 200 pounds of metal and 4 tires from Joachim Creek during their 36th Biannual Cleanup. Nice Work!

Team 1008 The Twin River Rangers have been making their voices heard on the issue of selling and closing parks in St. Louis County, many of which border streams. They attended a rally and contacted their County Councilmen, voicing their opposition to the proposal.

Team 1444 The Show Me 4-H Club spent a beautiful day cleaning up Steer Creek where it flows through Rotary Park in Kirksville. Some of the 14 volunteers who participated were also lucky enough to see minnows, crayfish, and water snakes!

Team 1741 Rebecca Jamieson took a fresh group of students out to Pearson Creek in Greene County to try their hand at chemical monitoring. Keep at it, Streaminators – practice makes perfect!

Team 2215 The James River Outfitters hosted three cleanups for YMCA Youth Groups from Springfield and Monett. Ellen Benham says, "I was amazed at some of the trash these kids pulled from the river and loaded in their canoes. They floated 5.2 miles and each canoe was loaded with trash, tires, and large pieces of metal."

Team 2961 The Hinkson Creek Neighborhood Stream Team has been helping out their adopted stream in Columbia. They participated in the 8th Annual Hinkson Clean Sweep, where their group hauled in 40 bags of trash, and attended a training to help them in their role as members of the Hinkson Creek TMDL stakeholder committee. Sounds like the Hinkson is in good hands!

Team 3348 The City of Excelsior Springs held their 2nd Annual Cleanup on Fishing River in Ray County. Brent Bishop reports that 150 volunteers helped remove 164 tires, one ton of metal, and a dumpster full of trash from three miles of river. Well done!

Team 3481 The Big Piney Tie Rafters found scuds for the first time ever while monitoring the Big Piney River in Pulaski County. They also found cased caddisfly and gigantic stonefly larvae!

Team 4123 Members of the LaBarque Creek Watershed Association have been making improvements along LaBarque Creek in Jefferson County, removing invasive species and planting trees. They have already planted twenty trees, with plans for more to come this spring.

Team 4330 The Bonnie View Stream Team combined forces with the Columbia Audubon Society for their first joint cleanup. Twenty-two volunteers worked together to remove large farm implements, 30 bags of litter, a pink flamingo, and half a ton of miscellaneous junk from Scott's Branch in Bonnie View Park and the Audubon Nature Sanctuary in Columbia.

... their bottom lip to almost ...

Continued on page 4

Taking the Scenic Route

By Mike Heimos, Stream Team 3517



Every year Mike Heimos, Stormwater Educator for the City of Columbia, takes students from the University of Missouri out with Public Works staff members to collect litter from local roadways. He is all too aware of the impact of trash in the watershed on local waterways. On March 10th, 25 young men and women from Alpha Phi Omega (APO) and Alpha Tau Omega (ATO) came out to Rock Quarry Road scenic roadway in Columbia to clean up trash. Hinkson Creek

runs alongside the road in sections, a pointed reminder of the importance of their task.

Students and Public Works staff spent the early morning hours picking up litter along the road. The usual suspects were found in abundance, including many tires, plastic bottles, cans, and plastic bags. There were also some interesting finds this year, including a brand new cooler, miscellaneous clothing items and an intact twenty dollar bill! Heimos has taken this group out at least once a year for the last three years to clean this busy roadway. "It is good for the public to see our volunteers taking on such a hard, yet interesting task," says Heimos. He believes that events like this are a great way to promote the Stormwater Education Program in Columbia.

All told, they collected about 2,500 pounds of trash in two hours on a stretch of road less than one quarter of a mile long. That is compared to a grand total of 1,600 pounds collected at the same location last year. It is an especially impressive number when you consider that the bulk was made up of ordinary, small trash items.

You can view their efforts in a short, time lapse video on Stormwater Columbia's YouTube page. You can also follow the City of Columbia Stormwater Education Program on Facebook, or keep up with all of their great projects on their blog.

Visit www.gocolumbiamo.com/PublicWorks/Stormwater for more information.



Above, members of APO & ATO continue down Rock Quarry Road, picking up trash that resulted in a 2,500 lb. haul (shown on left)!



TEAM CALENDAR

May

- 6 **Fishpot Creek "GO" Day Litter Pickup, Valley Park.** Contact Chris Shank at swatson282@att.net or Tom Wiley at tom.wiley@charter.net.
- 6 **Missouri River Monitoring Blitz, St. Charles.** For more information, e-mail greenwaynetwork@gmail.com or call Larry Ruff at 636/498-0772.
- 8 **Big Muddy Speaker Series, Les Bourgeois Bistro, Rocheport.** For more information, go to www.riverrelief.org/updates/entry/big-muddy-speaker-series/
- 13 **Maline Creek Monitoring, Ferguson.** Contact David or Mark Kuechenmeister at 314/388-1423.
- 19 **Intro Level VWQM Workshop, Blue Springs.** Register online at www.mostreamteam.org.
- 19 **Missouri & Grand River Cleanup, Brunswick.** For more information, go to www.riverrelief.org.
- 31 **Deer Creek Chemistry Water Quality Monitoring, St. Louis.** Contact Danelle at 314/961-4410 or danelle@litzsinger.org.

June

- 2 **Jacks Fork Annual Cleanup, Eminence.** For more information, contact Pat Haviland at 417/932-4363 or tednpat@gotrain.org.
- 2 **Great Outdoors Meramec Greenway Trails Day, Wildwood.** For more information, call 636/451-6090.
- 9 **Grand Glaize Creek Chemistry Monitoring, St. Louis.** Contact Darlene at 636/225-3946 or darlene.haun@mdc.mo.gov, or Bob Jung at 314/494-8432.
- 9 **14th Annual River Rescue & Dam Jam, Springfield.** Go to www.jamesriverbasin.com for more information.
- 12 **Big Muddy Speaker Series, Les Bourgeois Bistro, Rocheport.** For more information, go to www.riverrelief.org/updates/entry/big-muddy-speaker-series/
- 16 **7th Annual Upper Current River Cleanup, Salem.** Contact Mary Ficker at 573/729-7065 or jackmaryficker@hotmail.com.
- 16 **Upland Prairie/Wetlands Walk, St. Louis.** For more information, call 314/615-5270.
- 20 **Scenic Rivers Stream Team Association Meeting, Mountain View.** Contact Ted or Pat Haviland at 417/932-4363 or tednpat@gotrain.org.
- 23 **Upper Big Piney River Cleanup, Boiling Springs.** Contact Debbie at drmiller55@yahoo.com.
- 28 **Deer Creek Chemistry Water Quality Monitoring, St. Louis.** Contact Danelle at 314/961-4410 or danelle@litzsinger.org.

Have an event?
Submit online at
www.mostreamteam.org.

...a third of ...

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ACTIVITY PRIZE DRAWING

Activity Prize items will change every three months.

If you would like to be included in our "Activity Prize Drawing," please check box at right and **attach a list of participant names**. Please print clearly. The more activities you submit, the better your chances! New prizes will be drawn every three months. Attention teachers and youth group leaders: For a youth group prize, please check the box at right, but you do not need to include a participant list for group prizes. New prizes will be available and drawn every three months.

Activity Prize
 or
 Youth group prize

THANK YOU ITEMS

You may request these free items in any combination.

ITEM:	Number requested:
Bookmarks (dragonfly)	
Bookmarks (spring peeper)	
Bumper Stickers (Quality Water, 3 1/2" x 9 1/4")	
Buttons (Stream Team mini-buttons 1 1/2" pins)	
Colorbook (Stream Team Most Wanted, Grades 4-6)	
Colorbook (Stream Team Superstars, Grades K-3)	
Koozies (Stream Team)	
Mood Cups (Stream Team, 17 oz. plastic)	
Patches (Stream Team, 3" round, embroidered)	
Pencils (Get Into Missouri Streams, blue sparkle)	
Post-it Notes (Stream Team, 3" x 4")	
Scratch Pads (Stream Team, 5 1/2" x 8")	
Stickers (Get Into Missouri Streams, 3" round)	
T-Shirts (Stream Team, adult sizes only)	S _____ M _____ L _____ XL _____ XXL _____



ACTIVITY SUPPLIES

These free supplies are available for your activities.

ITEM:	Number requested:
First Aid Kits (limited availability)	
Litter Pickup Bags (green mesh 24" x 36") for larger trash	
Litter Pickup Bags (red mesh 14" x 26")	
Work Gloves (adult size)	
Work Gloves (youth size)	

Missouri Stream Team Activity Report

This report can be turned in after only 1 activity. Stay active -- you make a difference for Missouri streams!

Stream Team Identification:

Team Number: _____

Team Name: _____

Reporter Name: _____

Business/School: (if applicable) _____

Shipping Address: (no PO Box please) _____

City, State, Zip: _____

Home Phone: () - - - - - Work Phone: () - - - - -

Updated E-mail: _____

Contact Person for Team: _____

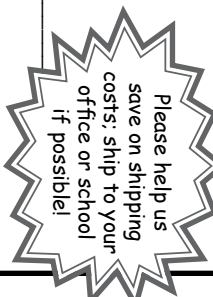
Is there a change in Contact Person? Yes No

Is there a change in Contact Person address? Yes No

If yes, new address: _____

Please check one:

Commercial
 Residential



Please provide details about your activities on the reverse side.

Mail this Activity Report to:

MISSOURI STREAM TEAM
PO BOX 180

JEFFERSON CITY MO 65102-0180

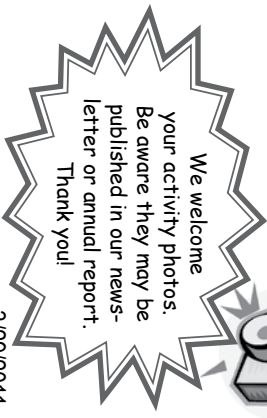
For more information, contact us at:

Phone: 1-800-781-1989 (voice mail)

E-mail: streamteam@mdc.mo.gov

Web site: www.mostreamteam.org

Fax: 573/526-0990



3/29/2011

Stream Team Activity Report

Stream Team Activity 1

Type of activity: (see code list at right) _____
 Activity date: _____
 Stream name: _____
 Activity county: _____
 Activity basin: _____
 Miles of river covered: _____
 Number of volunteers involved: _____
 Hours spent on project: _____

Measurement : Please list number of monitoring trips, bags of trash collected, letters written, trees planted, events held, etc. See code list at right.

Location Description: Please provide a detailed location for your activity. (Example: 100 yds. upstream from Hwy. 63 bridge.) Include township, range, and section if possible. A good resource for maps can be found at www.USGS.gov.

Project Description: Please include as much information as you can about your activity. Include facts about the project not covered above. (Example: "Held 4th Annual litter pickup and picnic at Dry Fork Creek.")

Stream Team Activity 2

Type of activity: (see code list at right) _____
 Activity date: _____
 Stream name: _____
 Activity county: _____
 Activity basin: _____
 Miles of river covered: _____
 Number of volunteers involved: _____
 Hours spent on project: _____

Measurement : Please list number of monitoring trips, bags of trash collected, letters written, trees planted, events held, etc. See code list at right.

Location Description: Please provide a detailed location for your activity. (Example: 100 yds. upstream from Hwy. 63 bridge.) Include township, range, and section if possible. A good resource for maps can be found at www.USGS.gov.

Project Description: Please include as much information as you can about your activity. Include facts about the project not covered above. (Example: "Held 4th Annual litter pickup and picnic at Dry Fork Creek.")

Stream Team Activity 3


Type of activity: (see code list at right) _____
 Activity date: _____
 Stream name: _____
 Activity county: _____
 Activity basin: _____
 Miles of river covered: _____
 Number of volunteers involved: _____
 Hours spent on project: _____

Measurement : Please list number of monitoring trips, bags of trash collected, letters written, trees planted, events held, etc. See code list at right.

Location Description: Please provide a detailed location for your activity. (Example: 100 yds. upstream from Hwy. 63 bridge.) Include township, range, and section if possible. A good resource for maps can be found at www.USGS.gov.

Project Description: Please include as much information as you can about your activity. Include facts about the project not covered above. (Example: "Held 4th Annual litter pickup and picnic at Dry Fork Creek.")

Stream Team Activity Code List

Activity	Code	Measurement
Litter pickup	LPU	Number of litter bags
Water quality monitoring	WQM	Number of trips
Pre-activity planning	PLN	Number of events
Stream Team meeting	MTG	Number of attendees
Stream workshop attended	WKS	Number of attendees
Education project	EDU	Number of events
Letter written on stream issue	LET	Number of letters
Article written for newspaper, etc	ART	Number of articles
Media contact/interview	MED	Number of interviews
Tree planting	PLT	Number of trees
Presentation to groups	PRE	Number of presentations
ST display at school, fair, etc.	DIS	Number of events
ST Inventory Guide submitted	INV	Number of inventories
GPS Reading 	GPS	Number of trips
Zebra mussel monitoring form	ZEB	Number of trips
Storm drain stenciling	SDS	Number of drains stenciled
Monofilament recycling project	MRP	Weight of line recycled
Streambank stabilization project	SSP	Number of events
Habitat improvement	HAI	Number of projects
Advocacy on stream issue	ADV	Number of events
Photo Point Monitoring	PPM	Number of photos
Greenway development	GRE	Number of projects
Recruited new Team/members	REC	Number of people recruited
Stream Team mentoring	MEN	Team mentored & events
Stream Access Maintenance	SAM	Number of litter bags/events
Adopt-An-Access	AAA	New Accesses Adopted
Forestkeepers monitoring	FOR	Number of events
ST Association activity	ASC	Number of events
Award received	AWA	Number of awards
Grant applied/received	GRT	Number of projects
Watershed mapping	WAT	Number of trips
Assisted MDC fish stocking	FIS	Number of events
Other, please describe	OTH	Number of Projects



Activity Prize Drawing

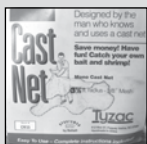
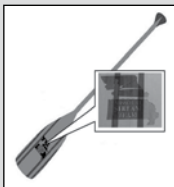
Our first quarter
prize winners will be
announced in the next
issue of Channels.

First Quarter Prizes Won

- ★ Olympus 10mp Waterproof Digital Camera
- ★ Igloo Island Breeze 48-quart Cooler
- ★ Outdoor Hydration Waist Pack
- ★ Ozark Trails Battery Lantern
- ★ Shrubs & Woody Vines Field Guide
- ★ Chinook Technical Outdoor Backpack
- ★ Youth Prize: Bio-Bubble Animal Habitat

NEXT Prize Drawing

- ★ Colorado Canoe
- ★ Maglite (2 D-cell)
- ★ Missouri Wildflower Book
- ★ Eureka Sleeping Bag
- ★ Cast Net (3.5-ft. radius)
- ★ Stream Team Engraved Paddle
- ★ Youth Prize: Discovery Channel
"Life on Earth" DVD Collection



Please keep sending us
your Activity Reports . . .
YOU might win NEXT!

DUMPED:

Dangerous Trash in Your Neck of the Woods?

By Naomi Gebo, Stream Team Biologist

Cleanup season is upon us and I know you are eager to get out on Missouri's many streams and rivers. But, this is also a good time to think about safety. During cleanups you are likely already taking many precautions, like avoiding deep water and high flows and watching your step on slippery rocks and banks. However, you also need to be watchful of the trash you collect. Work gloves provide good protection, but some items are too dangerous to be handled at all. This includes so-called "meth trash," an increasingly common sight in Missouri.

Missouri has led the nation in the number of meth lab busts since 2001. With the advent of simplified production methods, such as the "one pot" or "shake and bake" method, the range of locations where meth is made and waste is found is growing. Hazardous and often explosive materials may be dumped along roadsides or waterways, in the woods, or in public use areas, especially in rural areas. Common meth trash items include tanks with altered or corroded fittings, brightly stained coffee filters, sealed glass containers or soda bottles containing clear liquid and rock solids, containers with hoses attached, and large amounts of empty cold medicine blister packages.

Protect yourself! Be sure you know how to identify meth trash and what to do when you find it. Never handle, smell, or examine suspected meth waste. These items may be contaminated with chemicals that can cause skin burns and respiratory damage, and may even explode! If you find meth trash, note the location and notify your local law enforcement agency.

For more information, see the updated fact sheet "Missouri is Number One?" at www.mostreamteam.org or contact 1-800-781-1989 to request a paper copy.

Don't forget to utilize your 2012
**Stream Team Float Outfitters
Discount Directory
this float season!**

Electronic version can be found at www.mostreamteam.org

**Discounts are available to
Stream Teams across the state!**

... their body length to ...

See page 8



COALITION CORNER

News from the Missouri Stream Team Watershed Coalition

Warm Welcome to Ozarks Water Watchers

By Holly Neill, Executive Director, MSTWC

The Missouri Stream Team Watershed Coalition extends a warm welcome to the newest Stream Team Association, Ozarks Water Watchers. The Association is comprised of four watershed groups: James River Basin Partnership (Stream Team 1365), Ozark Water Watch (Stream Team 4325), Table Rock Lake Water Quality, Inc. (Stream Team 2247), and Watershed Committee of the Ozarks (Stream Team 1395).



By becoming an Association, Ozarks Water Watchers hopes to get to know other Stream Teams in the watershed and share experiences, form a network of local Stream Teams to assist with large-scale projects, be available as a mentor for new Stream Teams in the watershed, become a local resource for schools and other groups interested in stream education, and have a larger voice in local watershed issues.

Here are some examples of these Teams in action!



The James River Basin Partnership hosts the annual River Rescue Cleanup. In 2011, volunteers removed 5.4 tons of trash and 200 tires from the James River!



Table Rock Lake Water Quality, Inc. works with landowners to install properly functioning wastewater systems.



Watershed Committee of the Ozarks educates thousands at the newly established Watershed Center at Valley Water Mill Park in Springfield.



Ozark Water Watch is working to develop a volunteer water quality monitoring program focused on the Upper White River Basin utilizing Stream Team volunteers.

...catch prey?
See the Fact Sheet in this issue for more information.

All four of these Teams bring a variety of great resources and people to the table for the benefit of stream resources. Combined, their efforts are sure to have a great positive impact on Ozark streams.