

Insuring Quality Volunteer Data

Chris Riggert

Missouri Department of Conservation

Established In 1989

- Education
- Stewardship
- Advocacy



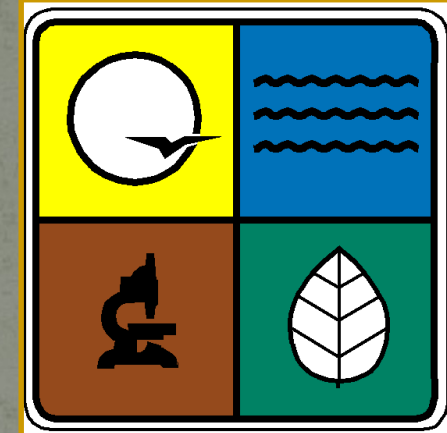
The Partners



CFM



MDC



DNR



MO Stream Team Program (2010 report)

- It is a comprehensive program offering over 30 types activities
 - Litter pickups, WQM, Photo Point Monitoring, Adopt-an-Access, and More!
- ST Academy Wks.
- Over 4,000 Teams
- Over 146,000 hours
- \$3.1 million of labor



Fulton Middle School ST #3098

Volunteer WQM

- One of the Stream Team activities
 - Second only to Litter Pickups
 - Began in 1993
- Only activity requiring training
- Five levels of training
 - Introductory Level
 - Level 1
 - Level 2
 - Level 3
 - CSI



Bill Miller ST # 2895

Level 2

- QA/QC workshop
- Check chemical equipment/methods against known standards
- Invertebrate exam
 - ID 75% of bugs
 - Miss no more than 2 EPT



Amy Jordan ST #3327

Level 3

- QA/QC “audit” on-site with ST Program Personnel
- Meet accuracy limits on 5/5 chem parameters
- ID 90% of inverts (100% EPT)



Wayne Davis ST #346

CSI

- Completed Stream Team VWQM training through Level 2 QA/QC
- Submitted consistent, credible data
- In conjunction with existing watershed project
- Complete DNR's "Basic Sampling" class



Spring on Eleven Point River

Photo by M. Cravens

Data Uses

- Inform and Educate
- Gather Baseline Data
- Identify Long-Term Trends
- Supplement Other Agency Data (MODOT, COE, USFS, etc.)
- Supplement Sponsoring Agency Data (MDC and DNR)

Data Uses (DNR)

- Intro and Level 1 – screening data
- Level 2 & 3, and CSI data – treated as agency collected data
- Evaluate Best Management Land Use Practices (BMPs)
- Planning and Permitting



Limnephilidae sp.



Delwin Johnson ST #1549

Data Uses (DNR)

- 303(d) list of impaired waters
 - Discharge data used for TMDL modeling
- 305(b) report to EPA
 - Stream classification and designated use



Fenton Stream Cleaners ST #1857

VWQM Validations

- Require Level 2 and above volunteers to come back every three years
- Attend regularly scheduled Level 2 training
- Attend VWQM Validation training
 - Weekday evening
 - Three-hour session covering
 - Chemical monitoring
 - Biological monitoring



Cynthia Cooper ST #1780

VWQM Validations

- Seven Validation Trainings across Missouri
- 36 Volunteers
- Replaced minimum of one piece of equipment for every one
- All equipment fell within range after replacement
- All volunteers passed invertebrate exam
- Positive feedback!



Cambarus maculatus

Challenges

- Time
- Resistance
 - Administration
 - 'Seasoned' volunteers
- Communication!



Mussels from the Lamine River

Questions?



MDC photo