



Loudoun Wildlife Conservancy

Stream Monitoring Program

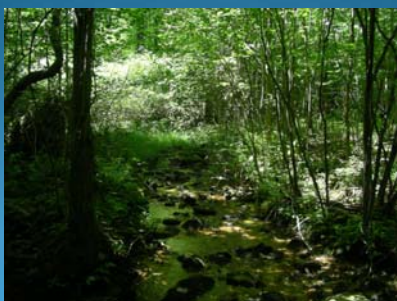
Today's Agenda

- What is a healthy stream?
- Why are macroinvertebrates good indicators of stream health?
- How do we sample benthic macroinvertebrates?
- Where do we sample?
- How can you participate?

Short Break

- Introduction to Macroinvertebrate Identification

Why is this a healthy stream?



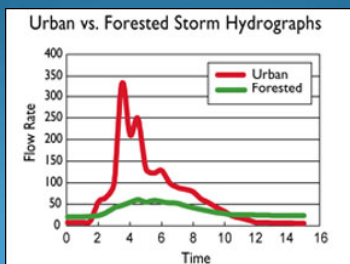
Healthy?



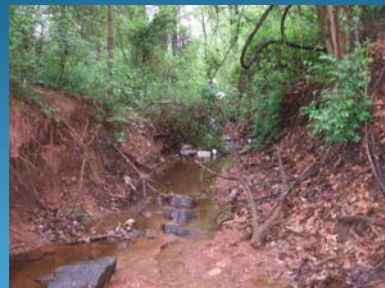
Could this be a problem?



Urban vs. Forested Hydrograph



Too much water?



What is a Benthic Macroinvertebrate?

Benthic = lives on the bottom

Macro = visible without magnification

Invertebrate = no backbone

Why are they good indicators?

- Spend up to one year in the stream.
- Have little mobility
- Generally abundant
- Primary food source for many fish
- Wide variety of tolerances to pollution

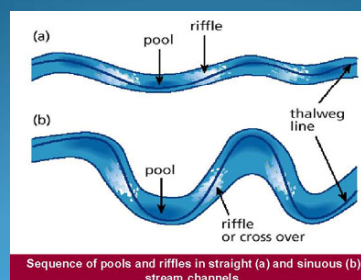
Pollution Tolerances

Group 1 - pollution sensitive
(require higher DO, neutral pH, cold water)
Ex. mayflies, stoneflies, caddisflies

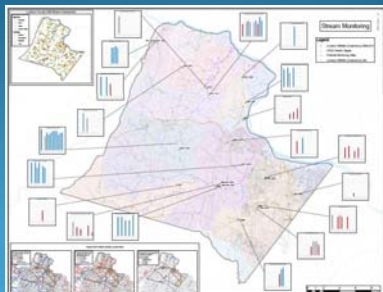
Group 2 - somewhat pollution tolerant
Ex. scuds, dragonflies, damselflies

Group 3 - pollution tolerant
(can tolerate low oxygen, lower/higher pH, warmer water)
Ex. aquatic worms, midge larva

How do we sample?



Where do we sample?



How can I participate?

Help and practice in the field with an existing team

- Sign-up sheets
- Check our calendar:
<http://www.tinyurl.com/loudounstreammonitor>

Become a certified stream monitor

Upcoming Monitoring Events

Sycolin Creek – Scott Sandberg – Sun, Mar 17, 2pm
 Goose Creek – Zoe Irwin – Sun, Mar 24, 10am
 Broad Run – Robert Bavis – Sun, Mar 31, 2pm
 Crooked Run – Phil Daley – Wed, Apr 3, 4pm
 Milltown Creek – David Ward – Sun, May 19, 1pm

Certification Training - May

Break

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Loudoun Wildlife Conservancy
 Loudoun Watershed Watch