

FRIENDS



OF THE FOX RIVER™



The Fox River

You paddle it.

You bike it.

You fish it.

You enjoy it.

WE protect it.

Our outreach educators
lead 5,000 students into
the stream every year.



Join us and become a watershed watchdog.

FriendsoftheFoxRiver.org

Volunteerism

- Community Creatures
- Helping = Dopimene
- No: Resume, Interview, Firing, Pay
- Genetic
- Gray Eagles
- Cultural
- Givers vs Takers
- Essential for many initiatives



Our volunteers
removed boatloads
of trash in 2014.

We keep fixin' the Fox.

Learn how you can help.
Join • Volunteer • Support
friendsofthefoxriver.org

FRIENDS OF THE FOX RIVER™



Future ILMA Members

FRIENDS OF THE FOX RIVER™



- Protect, Preserve, Restore
- Fox River Watershed's Resources
- Connecting People to Nature
- Education, Recreation, Restoration, Advocacy



What We Do

- Create a Watershed of Caretakers
- Stream Monitoring Network
- Fox Rescue Cleanups
- River Habitat Improvement
- Research - Fox River Study Group
- Water Quality Protection Initiatives

How Can We Help Preserve and Protect the Fox River Watershed's Diversity now?

Get
Involved!



Become A Water Quality Steward



Join Fox Rescue Cleanups





Participate in River Habitat Restoration

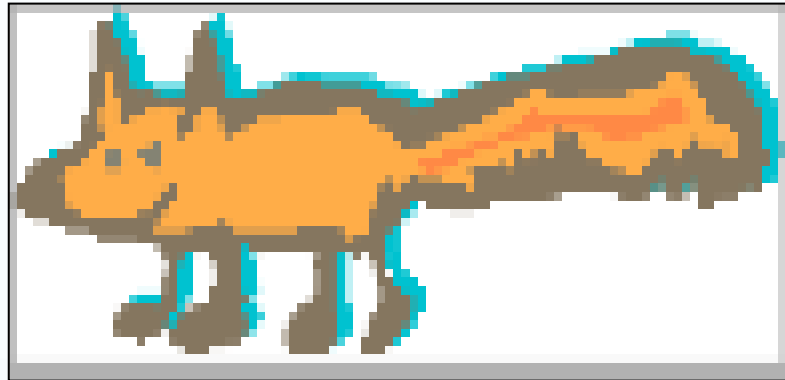




Recreation



The Fox River Watershed Monitoring Network



- Environmental Education for Action
- Providing Data for Decisions

Citizen Science

- Water Quality Monitoring
 - 350 Groups
 - 20 Volunteer Service Providers
 - 1350 Efforts
 - Total in the US - 1750
- Many other initiatives
 - Flora
 - Fuana

Monitoring History

- 60' s Izaak Walton League - visual
- mid 70' s Maryland - 3 taxa, SOS
- ' 83 Ohio & IWL
- 90' s - 45 states; FOFR & Illinois Rivers Project
- ' 94 CTAP
- ' 95 IL River Watch
- EcoWatch - prairie, forests, wetlands & more
- "99 FRWMN
- ' 05 EcoWatch cut
- ' 09 FRWMN Expansion

Why Watch a Stream?

- To check its health
- To identify changes
 - in conditions (trends)
- To collect data for
 - decision making
- To prepare for action



So,
what
exactly
are
we
looking
for
down
here?

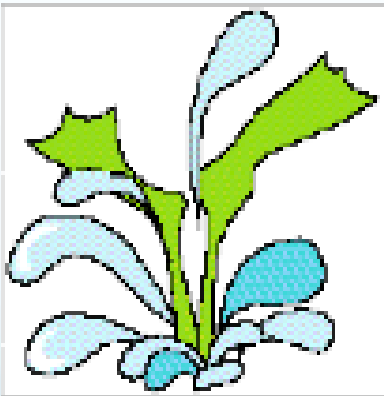
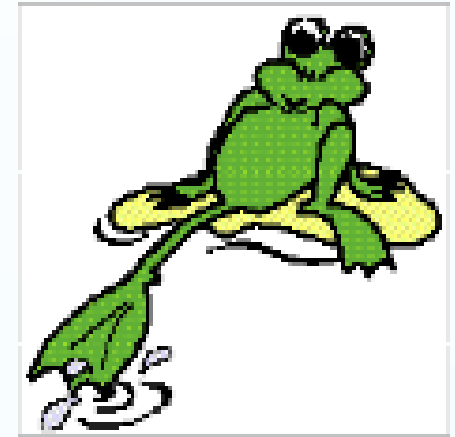


Why Watch a River?

The Frog Parable

Drop into Boiling Water -
It will jump out!

Boing!!



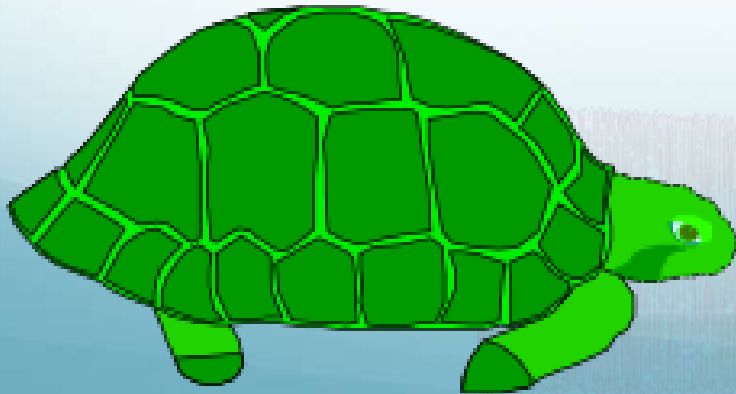
Put in cool water and gradually heat it....

Boiled frog legs!!

What is River Monitoring?

SAMPLING INDICATORS

- *CHEMICAL - Temp., pH, DO
- *PHYSICAL - Habitat, Flow
- *BIOLOGICAL - BMI's



Hey, is this a healthy place?

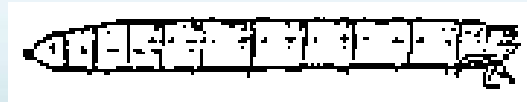


Biological Monitoring



Or

What Stream Life
Tells Us About Water Quality







Stonefly



- **Nymph:**
- **Two pair claws** on each of three jointed legs
- **Two pair of developing wing pads** present on thorax
- **Two distinct “tails”** called cerci, which are actually sensory feelers
- *Color:* Tan, brown, gold, or black
- *Length:* varies, up to 1 inch

Very Intolerant

Moderately Intolerant

Tolerant

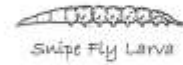
Very Tolerant

Macroinvertebrate Picture Key

PT GROUP 1



Stonefly Nymph

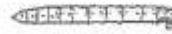


Snake Fly Larva



Dobsonfly Larva

PT GROUP 2



Crane Fly Larva



Dragonfly Nymph



Caddisfly Larva



Water Penny Beetle



Mayfly Nymph



Damselfly Nymph



Riffle Beetle Larva



Riffle Beetle Adult



Clams and Mussels



Crayfish

PT GROUP 3



Midge Larva



Black Fly Larva

Right-Handed Snail

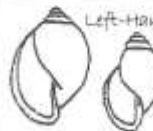


Sowbug



Scud or Side-swimmer

PT GROUP 4



Left-Handed Snail



Aquatic Worms



Leech

Friends of the Fox River Biological Monitoring Data Sheet

SITE INFORMATION

Date ____/____/____ Time ____:____ am or pm Site # _____

Collector(s) Name: _____ Organization Name: _____

River or Tributary Name: _____ Latitude/Longitude: _____

Nearest City/Town: _____ County: _____

HABITATS SAMPLED AND METHODS USED (CHECK TWO HABITATS)

Riffle/Kick Sample
 Undercut Banks/D-Net
 Snags/D-Net
 Sediment/D-Net
 Leaf Packs

MACROINVERTEBRATE INDEX

PT GROUP 1	PT GROUP 2	PT GROUP 3	PT GROUP 4
Stonefly Nymph _____	Damselfly Nymph _____	Midge _____	Left-Handed Snail _____
Snake Fly _____	Dragonfly Nymph _____	Black Fly Larvae _____	Aquatic Worms _____
Dobsonfly Larva _____	Mayfly Nymph _____	Scud _____	Leech _____
	Caddisfly Larva _____	Sowbug _____	
	Crane Fly Larva _____	Right-handed _____	
	Riffle Beetle _____	snail _____	
	Water Penny _____		
	Clams/Mussels _____		
	Crayfish _____		
# of Taxa _____	# of Taxa _____	# of Taxa _____	# of Taxa _____

Weighting

Factor **X 4** _____ **X 3** _____ **X 2** _____ **X 1** _____

NON-NATIVE MACROINVERTEBRATES (Enter Number Present)

Chinese Rusty
 Mystery Snails Crayfish
Zebra Mussels Asiatic Clams _____ _____

TOTAL TAXA RATING

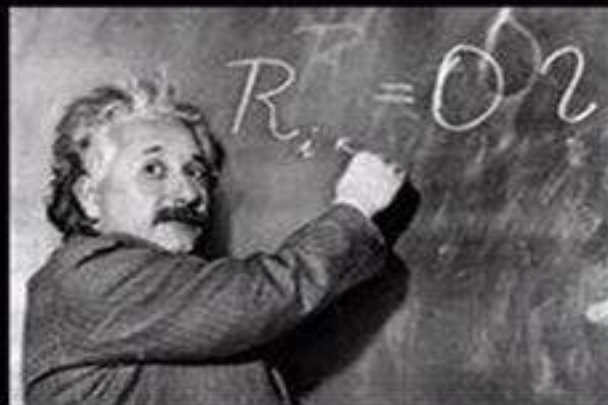
WATER QUALITY INDEX VALUE

33 or more = Excellent
 23-32 = Good
 13-22 = Fair
 12 or less = Poor

TEACHER



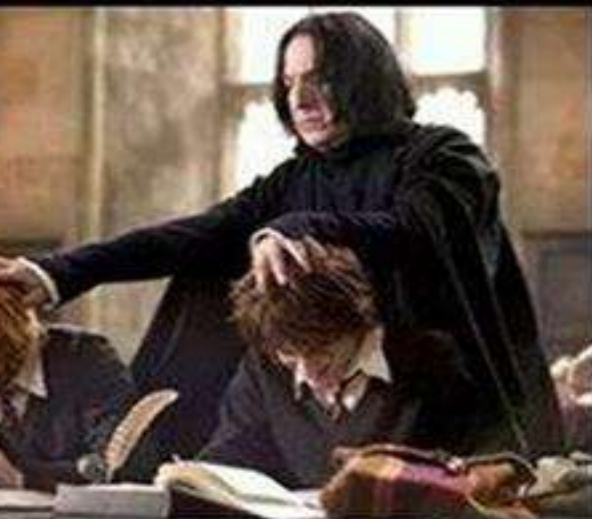
What my friends think I do



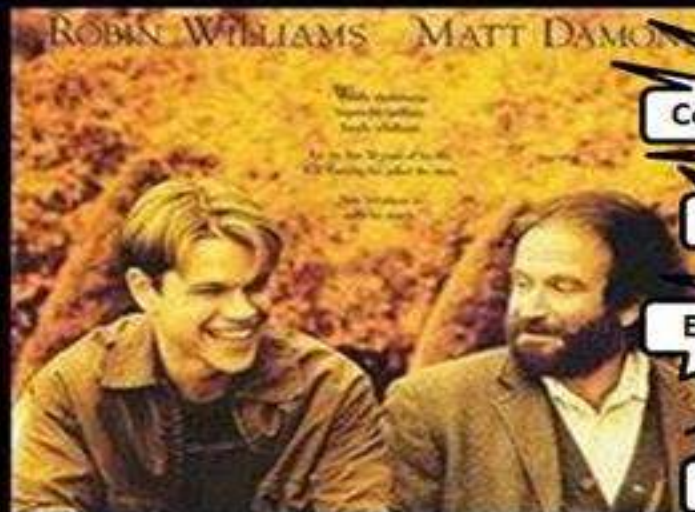
What my Mom thinks I do



What society thinks I do



What kids think I do



What I think I do



What I really do

Educational Continuum

- * Awareness
- * Understanding
- * Appreciation
- * Action

Creating a Watershed of Caretakers

It's fun!

It's education at its finest!



It's necessary action for an endangered river!

Student Slavery vs Stewardship

- Not more to do
- A vehicle to do it more effectively
- Cross curricular
- Engaging
- A Sense of Place
- Community Connection

Wanted: Watershed Watchdogs

HELP!



Schools

Citizens and Families

Scouts

Home Schools

Organizations

Become a Watershed Watchdog

- Wagging.
 - Identify what's not normal. Sniff, listen & look.
- Bark
 - Attract attention. Investigate.
- Snarl
 - if you are not respected. IEPA.
- Bite
 - if you must protect. Legal Action.

Monitoring Network Tools

- Train the Trainers
- Outreach Educators
- Monitoring Guide
- Equipment Loans
- Partner Organizations
- Sites of Concern
- Fox, River Guardian Curriculum
- Enrichment/Recognition
- Train, Outfit, and Support Monitors



How it Worked

- Train the Trainers
- Equipment Loan Stations
- Training Workshops
- \$\$\$upport – Bus, equipment
- Non-supported field experiences
- Enrichment/Recognition
- Partners – ROE, KCFPD, Agencies, Friends

Student Conference



Monitor Appreciation Dinner



Join Students and Professionals in the.....

Fox Map Project

GPS Collecting & GIS Mapping Data
Linking Land Use to Water Quality



To protect the

**Fox River
Watershed**

Monitor with Your Mother Mothers Day



Concert in the Creek



Where it is Now

- 319 Stimulus
- Outreach Educator – Retired Teachers
- Curriculum incorporation
- Student support
 - Peer teaching
 - Membership
- Elgin Contract
- NPDES/MS4 Satisfaction contracts

Education -----> Action

- * Outreach Educator ---> Teachers
- * Teachers -----> Students
- * Peer Teachers -----> Students
- * Students -----> Data ----> Trend Analysis-----> Action
- * Students -----> Literacy -----> Educators
- * Students -----> Stewards ----> Engaged Citizenry

Funding the Experience (Bus)

- LEAP Grant – Steve Kolsto
- IDNR Biodiversity Grant
- Partner Sponsor\$ – Municipality, business
- Talented Teachers



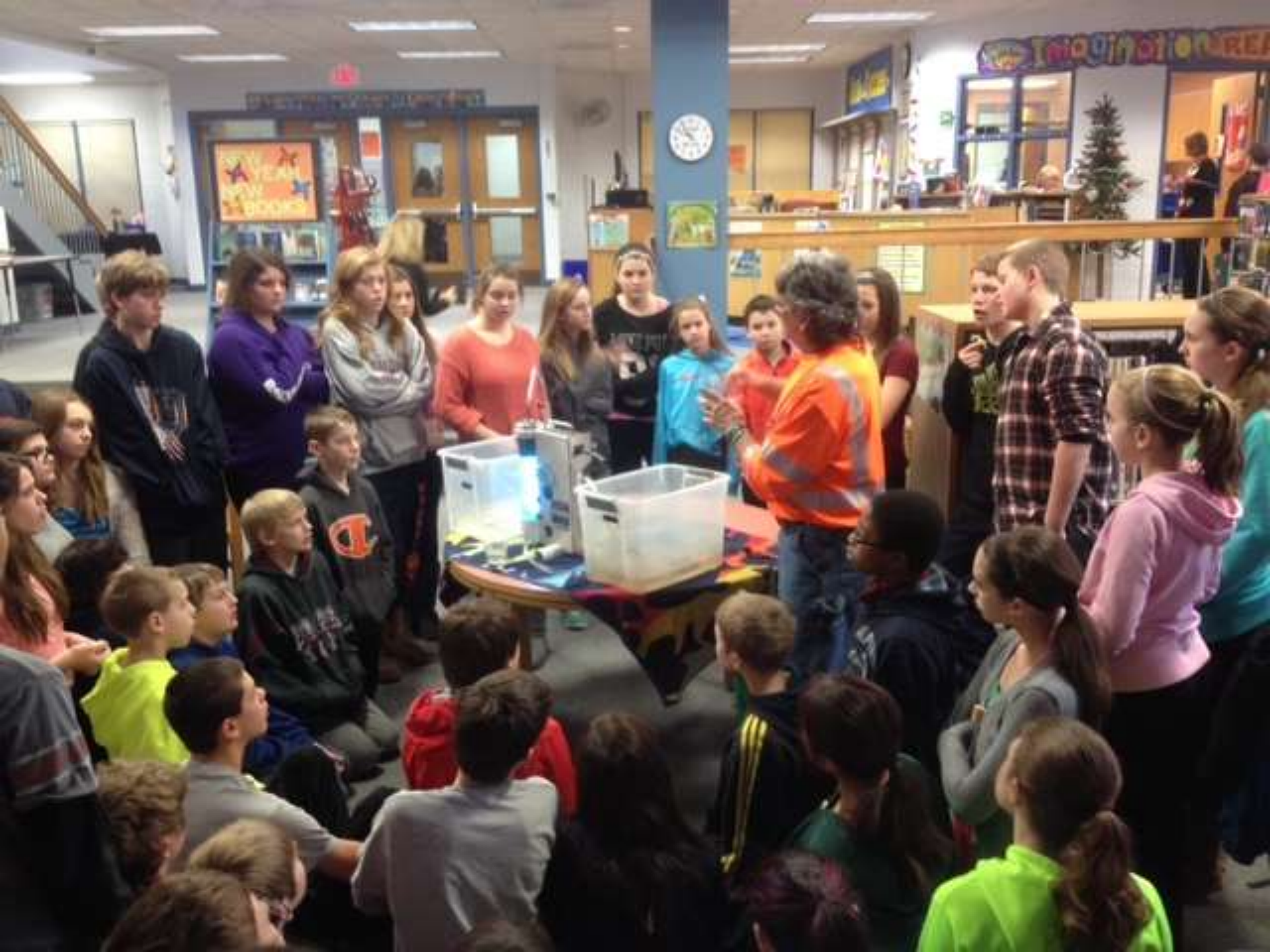
The Cool Bus





- Train
- Motivate
- Immerse

28,000+



Arrival...



Preparing for “The Work”



In the water...



Chemistry...





A Great Day...



Measurable Success!



Here's a unique opportunity for your organization to sponsor local school students as they learn how to be stewards of our very own Fox River Watershed.

Sponsor at \$100 to \$5000 & get your name on our t-shirts for kids in the stream.

T-Shirt Sponsors



“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it’s the only thing that ever has.”

-Margaret Meade

