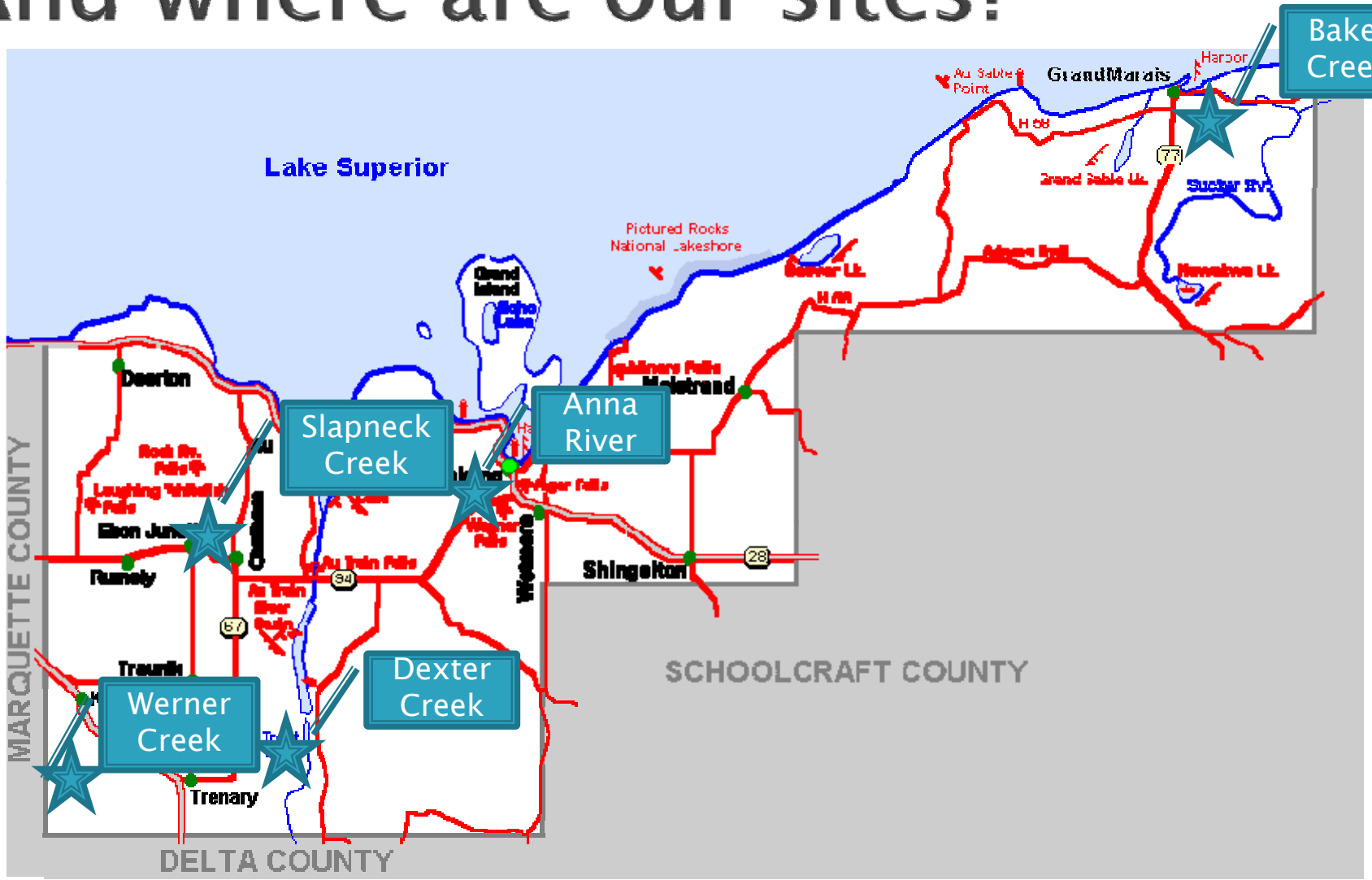
Alger Waters Stream Team Monitoring Project

Teri Grout
Alger Conservation District

So…where exactly are we?

Da Heart of Da U.P.!

And where are our sites?



All Over the County:
11 Sites, 5 Watersheds

Why so many?

Sometimes we wonder, too. But we have our reasons.

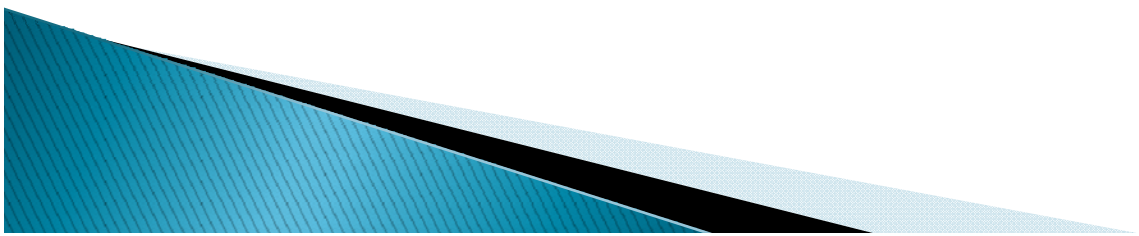
- Baker Creek: *Perched culvert; candidate for replacement, if funding can be found. Gives us pre-restoration data.*
- Anna River: *Near paper mill, poorly-maintained gravel roads, culverts and RR grades, urban contamination. Part of existing Munising Bay Watershed Plan.*
- Slapneck Creek: *Potential contamination from gravel roads, recreational trails, agricultural runoff, brownfield sites.*
- Werner Creek: *Heart of Alger ag; plus surrounded by the usual gravel roads & inadequate bridges & culverts.*
- Dexter Creek: *Ag, gravel roads, and identified brownfield sites.*

Mostly, it complements our existing work.

- Road-Stream crossing inventory
- Road Commission partnership in culvert restoration
- Watershed planning (Munising Bay, Au Train)
- Aquatic invasive species EDRR and control

What are our goals?

- Educate youth and adults about potential threats to our waters *(Non-point source pollution? What's that?)*
- Recruit citizens, students, and partners into a cohesive effort to identify threats and monitor stream health
- Acquire useful data and incorporate it into watershed planning
- Figure out a way to make the whole thing sustainable. *(Sounds easy on paper, eh?)*



And how's it working?

Step in and find out!

A few challenges…

Well, it's the U.P., after all.
We DO XC Ski into May.

Mosquitos the size of Brazil nuts

There are faces behind those nets. Really.

915 square land miles

(5000+ if you count Lake Superior. That's hardly fair, though.)

Limited population

(9,500 in 2013, or 10.5 people per square mile)

1.5 hour drive from Trenary to Grand Marais

(But only if you really gun it down the Seney Stretch)

Strengths
(Besides normal Yooper sisu)

Our partners!

Marquette
Conservation District

Northern Michigan University
lab and interns

Good Press

tdoors

FRIDAY
OCTOBER 10, 2014 1C

'MACRO' MANAGEMENT

Stream life monitored

Above from left, AmeriCorps volunteer Dan Watt, Northern Michigan University student Justin Linn, Alger Conservation District conservation technician Josh Forrester and NMU student Kevin Heynig search for macroinvertebrates at Werners Creek in Alger County. The project focuses on local stream health. Below, many kinds of macroinvertebrates are being collected from Werners Creek. (Journal photos by Christie Bleck)

By CHRISTIE BLECK
Journal Staff Writer

TRENARY — Counting tiny animals that squirm, swim and float in creeks and streams has a purpose beyond just getting a close-up view of these animals. It can determine the aquatic health of these waterways and point to future good management practices.

Call them "squigglies," "creek creatures" or whatever, but macroinvertebrates are considered good environmental indicators. Because of this, the Alger Conservation District, with a grant from the Michigan Clean Water Corps, has been undertaking a stream-monitoring project at 11 sites at five waterways — Werners Creek, Baker Creek, the Anna River, Slapneck Creek and Dexter Creek — sampling the small aquatic animals many people don't notice.

Forrester spent part of Tuesday in Limestone Township at Werners Creek. The forested stream is a tributary of the Whitefish River with smooth bedrock and riffles, and is a good fishing area with several road crossings, he said.

The project's focus is to make sure these road crossings are being maintained and there are no problems with sediment pollution, according to Forrester, and that's where the documenting of macroinvertebrates comes into play.

"We identify and count them to gauge the health of the stream," Forrester said.

Certain organisms are sensitive to pollution, and if they're absent, something is wrong, he said.

"I do stuff like this in the off-time anyway," Linn said.

It's easy to see why macroinvertebrates fascinate people. Dragonfly nymphs look nothing like their winged adult forms. Water snipe fly larvae twist and gyrate more than Cirque de Soleil performers. Giant water bugs, which bear the ominous nickname of "toe-biters," can be the size of people's palms.

Beyond the fascination factor, the collected macroinvertebrates have a scientific purpose. Forrester said data will be submitted to the Michigan Clean Water Corps at micorps.net.

"Everybody who participates in this program posts their data on there so that it can be accessed by anyone — any interested parties, general public, anybody — to see how their local

The Stream Teams

Alger Conservation District seeks volunteers

By CHRISTIE BLECK
Journal Staff Writer

MARQUETTE — Scuds? Sideswimmers? Gilled snails? If these and other macroinvertebrates — basically, animals without backbones — are your thing, consider volunteering with the Alger Conservation District's stream monitoring program this year.

Josh Forrester, a conservation technician with the district, talked to potential volunteers Wednesday at Northern Michigan University during National Wildlife Week.

"The ultimate goal of this program, basically, is just to protect our fresh water through engaging citizens, educating the public and creating stewardship," Forrester said.

The program is made possible through a grant from the Michigan Clean Water Corps, a network of water-monitoring programs in the state, created to help the Michigan Department of Environmental Quality.

Volunteers look at and collect aquatic life found in streams, marking their findings on data sheets. It is hoped, after two years, volunteers can monitor the streams on their own, he said.

The program allows volunteers to make contributions to science.

"This is something that's just custom made for that," said Teri Grout, Alger Conservation District executive director.

"Why collect bugs?" Forrester asked. "They're scientifically useful. They're good indicators of streams."

By that, Forrester meant the looking at the diversity and numbers of macroinvertebrates, such as crayfish, clams, worms and the like, that indicate habitat loss, sedimentation and chemical pollution, for example.

"It's designed to be a cheap, easy and fun way to actually get real data you can use without having to do all this chemical analysis and that kind of thing, to see what's actually living there, and go by that," Forrester said.

There's the scientific aspect, of course.

"It's basically a great opportunity to see an ecosystem, pretty much a complete ecosystem, just quickly and easily, see how they all interact, you know, and to see a microcosm of a much larger biosphere in a way," Forrester said.

Last but maybe not least, it can be just plain fun.

"It's also fun to splash around and play with bugs too," Forrester said.

A person also could get lost in collecting scientific data is the nicest of settings.

Grout said," I mean, I can't think of anything better to do on a nice day after dinner than standing in waders in a nice, clear stream. It's not just work."

A training session is offered to volunteer before they hit the field. Forrester said the animals they'll collect typically are larval and nymph stages of insects such as dragonflies and mayflies, which can look nothing like their adult forms. However, those grown-up insects eventually will have an impact on the local habitat.

"It gives you a really good glimpse of the whole area," Forrester noted.

The types of macroinvertebrates volunteers might come across are varied. Caddisflies, for example, create cases from stream debris, Forrester said. Stoneflies have two tails and "cool" back patterns, he said, while water pennies are tiny and cling to rocks.

Then there is the aptly named sideswimmer.

"They are called sideswimmers for a reason," Grout said. "They just scuttle along, like they're doing the sidestroke. I mean, as soon as you see one, you know you got it."

There is some danger, although minor.

"Hellgrammites have been known to bite," Forrester said.

However, special tools can come in handy to combat the dangers of the deep.

"Forceps are a really good tool for picking these up," Grout said.

Challenges also can come in the form, for example, of "true bugs," which Forrester called escape artists, being hard to catch and hard to keep.

"They don't always make it into the jar," he said.

Reed Saam, an NMU student majoring in environmental science with an emphasis in water resources, has volunteered with the Yellow Dog Watershed Preserve, with 2013 marking his third year with this project. He expressed an interest in taking part in monitoring streams for the Alger Conservation District.

"I'm a fly fisherman, so I've always been interested in bugs," Saam said.

Generating that interest in a program such as the stream monitoring effort also could provide a lot of environment benefits down the line.

Forrester said, "It doesn't take much time. It doesn't take a whole lot of effort."

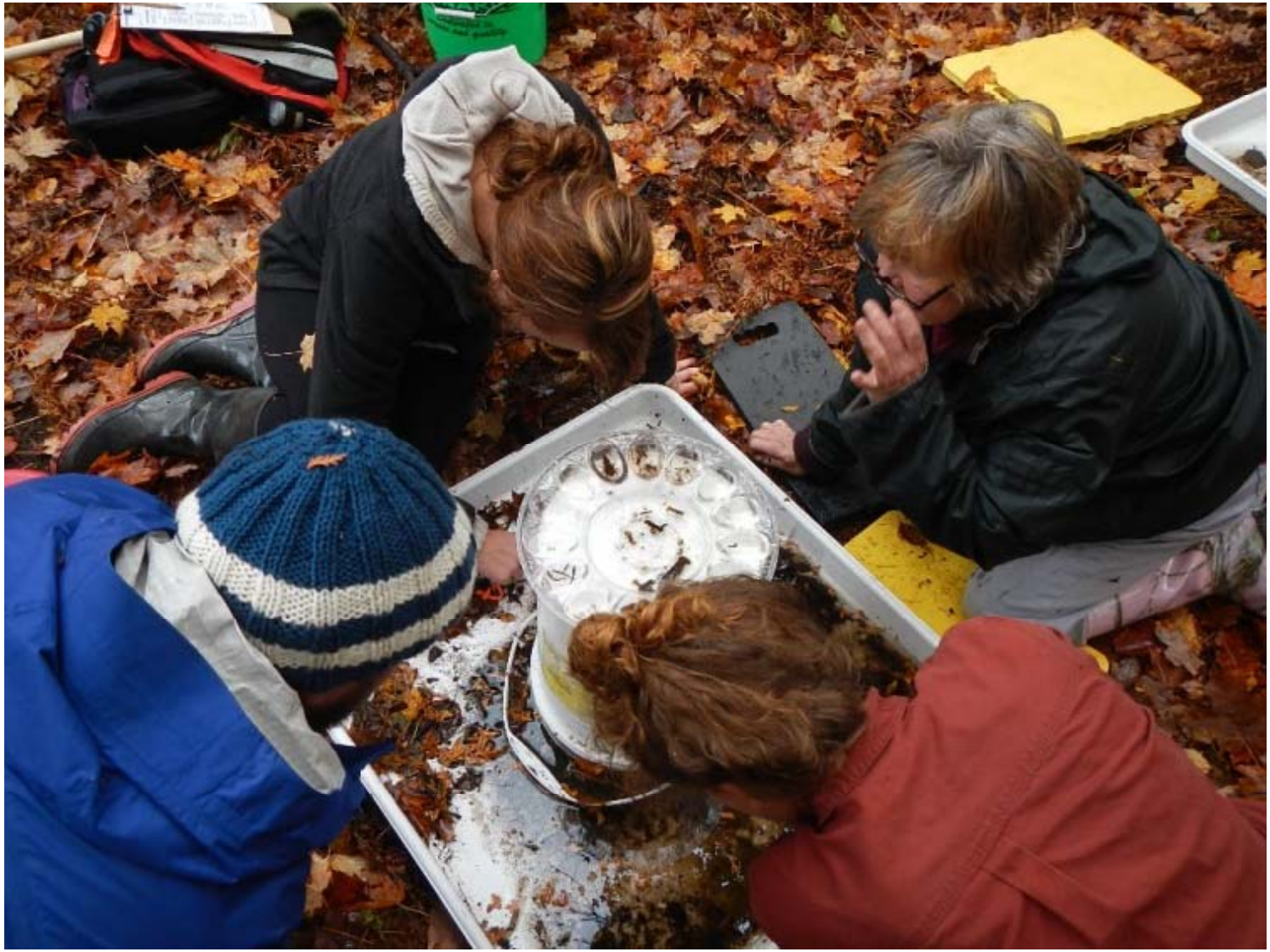
People interesting in volunteer with the stream monitoring program can call the district at 906-387-2222.

The program, Forrester said, should ramp up sometime in late April or early May.

Christie Bleck can be reached at 906-228-2500, ext. 250. Her email address is cbleck@miningjournal.net.

Stuff that works

The $1 Deviled Egg Tray
(Yay, Dollar Store!)



Washing machine trays:
Lots of picking space, less head-butting

Keeping our volunteers comfy

(Pickin' and grinnin'?)

Indoor picking, where available

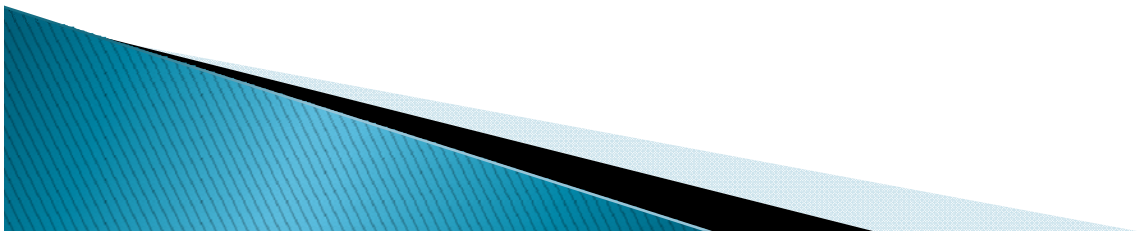
Volunteers can be hard to find

Some crustaceans, however, are smart and fairly cooperative. Sometimes we let them record data before we put them back in the water.

What have we learned?

(Besides that we need to double check that crayfish' s data recording)

- Early June is a safer bet than May for spring collections. *(Our mayflies are more like June flies.)*
- Even Yooper volunteers can be deterred by a certain density of mosquitos.
- Volunteer recruitment and retention: Harder and more time-consuming than we predicted. *(Much more varied and personalized communication and retention strategies are required, depending on the individual and his or her motivation.)*



Where do we go from here?

- There is no perpetual motion machine. How much staff input is required to:
  - Recruit and retain volunteers
  - Oversee program and ensure data quality
  - Expand program (dare we think it?)

    We're working on figuring that out with this grant.
- Who will fund?
  - Township/county contracts for services?

    Do they value data for their watershed planning?
  - Millage?

    Countywide survey shows strong support for monitoring and watershed protection. Will they put their money on it?

…And how do we find the resources to incorporate this data into broader watershed planning?