The MiCorps Monitor: August 2009

The newsletter of the Michigan Clean Water Corps, Issue 7

Welcome!

Welcome to the August 2009 edition of the *MiCorps Monitor*! As always, this edition is full of updates and information on the activities and individuals of the Michigan Department of Environmental Quality's Michigan Clean Water Corps (MiCorps).

Please note: this PDF is a an archived version of the original, web-based newsletter. As such, some features (photos, captions, navigation) are not available, and links may be broken. We apologize for the inconvenience!

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MiCorps

Monitoring Michigan's Water Quality

www.micorps.net

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Article 1:
MiCorps Sampling Events Lure over 1,000 Participants in the Spring of 2009

Benthic macroinvertebrate sampling (or “bug” sampling) is the cornerstone of many volunteer stream monitoring programs, including MiCorps. The large variety of insect larvae and other invertebrates that live in running waters have a range of sensitivity to sources of stream degradation such as sedimentation, water pollution, and habitat loss. As a result, a sample of the macroinvertebrate community at a stream site can reveal much about the condition of the stream. Benthic macroinvertebrate sampling is particularly suitable for volunteer monitoring programs because the organisms are abundant and most of them are easy to find. The equipment and expertise needed to collect stream macroinvertebrates is fairly basic and inexpensive, and the organisms are relatively easy to identify to ecologically meaningful levels. These attributes, combined with the fact that a collection of bugs is far more fascinating to observe than a water sample, make bug monitoring an ideal activity for volunteer stream monitors.

The MiCorps Volunteer Stream Monitoring Program monetarily supports groups around the state who are interested in using volunteer labor to collect benthic macroinvertebrates. This is an effective program because the state benefits from having a large network of stream watchdogs looking for environmental problems, the stream groups benefit because they receive financial help in establishing and building their programs, and the volunteers benefit because they are able to participate in a unique and fun outdoor experience.

Stream monitoring groups connected with MiCorps typically organize a fall and spring monitoring event. These events are popular and attract a variety of different types of people, including children, students, retirees, fishermen, scientists, teachers, and people of all ages who love to be outside. In the spring of 2009, MiCorps monitoring groups around Michigan rallied more than 1,000 people to aid in their monitoring events. Because not all interested citizens are able to attend every event, it is reasonable to estimate that between 1,500 and 3,000 Michiganders are annually volunteering in a MiCorps related stream event.

The MiCorps Volunteer Stream Monitoring Program first provided grants in 2005, and since that time has aided 23 groups in establishing or expanding benthic macroinvertebrate programs. Thousands of Michigan citizens have learned how to enjoy and care for our streams as a direct result of this program. In these hard financial times, it can be difficult to foresee the future of any program supported by government money. It is our hope that the MiCorps program continues long into the future, aiding the health of our natural resources, inspiring our future scientists and environmental leaders, and teaching citizens how their actions affect the world around them.

Twenty-three groups have received a MiCorps grant since 2005. These groups are spread across the state and work with a variety of different types of people.

1. Barry Conservation District
2. Branch County Conservation District
3. Chikaming Open Lands
4. Clinton River Watershed Council
5. Friends of the Rouge
6. Friends of the St Clair River Watershed
7. Glen Lake Association, Inc.
8. Jackson County Conservation District
9. Kalamazoo Chapter, Michigan Council of Trout Unlimited
10. Lake Superior State University
11. Marguerite Gahagan Nature Preserve (GNP)
12. Central Michigan University/ Michigan Lake and Stream Associations, Inc.
13. Mid-Michigan Environmental Action Council
14. Muskegon Conservation District
15. Muskegon River Watershed Assembly
16. Pine River/Van Etten Lake (PRVEL) Coalition
17. River Raisin Watershed Council
18. Superior Watershed Partnership and UP Resource Conservation and Development Council (various locations across Upper Peninsula)
19. Shakey Sentinels Stream Monitoring Group (The Sierra Club Foundation)
20. The Watershed Center Grand Traverse Bay
21. Tip of the Mitt Watershed Council
22. The Nature Conservancy/Livingston County Drain Commissioner
23. MiCorps Program Manager- Huron River Watershed Council

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Article 2:
2009 Stream Monitoring Training Event

This year's workshop on stream monitoring methods for MiCorps Volunteer Stream Monitoring Program grant recipients and other interested parties was held on June 29, 2009 at the beautiful Devries Nature Conservancy in Owosso. This is the second year that the DeVries Nature Conservancy has opened their doors free-of-charge to the MiCorps Program. Our thanks go to executive director Ken Algozin for his hospitality and friendliness.

The event was well attended, with 17 participants attending. Participants came from all areas of Michigan. Groups represented include Branch County Conservation District, the Hiawatha Sportsmen's Club, Jackson County Conservation District, Michigan Trout Unlimited, Mona Lake Watershed Council, Muskegon County Conservation District, and the U.S. Fish and Wildlife Service.

A variety of topics were covered with indoor lectures and discussions, such as volunteer recruitment and retention, writing a quality assurance project plan, and macroinvertebrate identification. Pouring rain did not deter the participants from getting outside and into the raging Shiawassee River to learn the ins and outs of collecting macroinvertebrates. The trainees also had the opportunity to study their recently captured live bugs under scopes during the identification training session.

New to this year's training was the introduction of a revised comprehensive habitat assessment protocol and datasheet that will be used for new monitoring projects as of this year. This new habitat assessment is easier to navigate and understand than the old one and should be a useful tool for MiCorps groups. It also contains directions for obtaining some quantitative stream substrate measurements. Both the new and old datasheets are now available at www.micorps.net/streamresources.html, and MiCorps staff are working to update the MiCorps Data Exchange to accommodate this new data entry format.

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Article 3:
Focus on the Cooperative Lakes Monitoring Program (CLMP)

Seeking Invaders: the Exotic Aquatic Plant Watch

Healthy ecosystems include a diversity of animal and plant species that are adapted to live together in harmony. Sometimes, however, an invasive species that is not a natural part of the ecosystem invades the system and upsets this balance. Disturbed ecosystems are especially vulnerable to invasive species, which take advantage of the opportunity to gain a foothold in the system.

Familiar invasive species in Michigan's aquatic habitats include zebra mussels and purple loosestrife. These species have become highly visible where they have invaded, for example, entire Great Lakes beaches covered with zebra mussel shells, or wetlands dominated by a purple summer blanket of loosestrife blooms. Other invasive species in our lakes and streams are less visible because they grow primarily beneath the surface of the water and, therefore, may go unnoticed until they have spread to potentially unmanageable levels.

MiCorps' Cooperative Lakes Monitoring Program (CLMP) recognized the risk to our inland lakes from submerged aquatic invasive plants, and developed a pilot volunteer monitoring program that has been in the testing phases for the past three years. In the 2009 monitoring season (going on now), twenty-one lakes enrolled in the pilot program, and in 2010 the Exotic Aquatic Plant Watch will become a permanent part of the CLMP.

The Exotic Aquatic Plant Watch program is open to all lakes, regardless of their previous experience within the CLMP. Volunteers from enrolled lakes attend a training session during the annual CLMP Training held each April in conjunction with Michigan Lake and Stream Associations' annual conference. During the training, volunteers learn to identify invasive plants and how to differentiate between the invaders and similar native species. Volunteers also learn how to methodically search their lakes for the invaders and how to record and report their findings. After the volunteers complete their lake survey, MiCorps staff can provide expert identification of suspected invasive species at the volunteer's request. Data from the lake surveys are added to the MiCorps database and new discoveries of invasive species are reported to the Department of Environmental Quality's Aquatic Nuisance Control program.

The Exotic Aquatic Plant Watch currently focuses on three introduced (exotic) invasive plants of particular conservation importance: Eurasian water milfoil (*Myriophyllum spicatum*), curly-leaf pondweed (*Potamogeton crispus*), and Hydrilla (*Hydrilla verticillata*). Eurasian water milfoil already is widespread in many Michigan lakes, where it creates large mats that crowd and shade out other plants and interfere with recreation. It is difficult to

eradicate because it spreads easily. Curly-leaf pondweed is not always a nuisance where it is found, but in some lakes can become a serious problem if not managed, forming thick beds that crowd out other plants. Hydrilla has not yet been found in Michigan, but this aggressive invader has caused serious problems in inland lakes from Florida to California and has been found as close as northern Indiana. In all cases, lakes where the natural plant community has been disturbed by herbicide treatments, mechanical harvesting, or other forces are more vulnerable to invasive plants than undisturbed lakes.

The key to effective management of aquatic nuisance plants is early detection, followed by rapid response. As noted above, submerged aquatic invasive plants can easily be overlooked until they are so widespread that eradication is impossible. If detected early when the population is small, complete eradication of the invader may be possible. In many cases, eradication may be impractical, if not impossible, and the focus will need to be on management control of the plant to prevent its spread beyond parts of the lake where it is already established. Lakes that enroll in this volunteer program will be better prepared to recognize these invaders early and take appropriate action.

If you are interested in enrolling your lake in the 2010 Exotic Aquatic Plant Watch, or would like to learn more, visit the CLMP pages on the MiCorps web site at www.micorps.net/lakevolunteer.html, or contact Dr. Jo Latimore at Michigan State University (latimor1@msu.edu, 517-432-1491).

Summer CLMP Sampling Underway

The CLMP is experiencing another successful summer of secchi depth monitoring, water sample grabbing, and chlorophyll filtering. In July, chlorophyll samples were collected from 113 basins (including 110 unique lakes in 42 counties) and are now being analyzed by the DEQ laboratory. Late summer total phosphorus water samples and the final chlorophyll samples will be taken in late August or September, depending on the location of the lake. Click on the following links to see the monitoring schedule for late summer phosphorus and chlorophyll.

2010 CLMP Enrollment Announced

Enrollment for the 2010 season of the CLMP will begin again in September. Both online and paper enrollment will be available. People who subscribe to the MiCorps-news listserv will be informed via email when this enrollment opens, and reminder postcards will be sent to all current participants.

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Article 4:
Stream Monitoring with MiCorps Grantee, Huron Pines

Huron Pines, whose mission is to conserve the forest, lakes and streams of Northeast Michigan, has begun tapping into the growing momentum of volunteers as stream and habitat monitors. Within its 11 county service area, Huron Pines has already expanded its first program to include a second major watershed. Volunteers from the Pine River/Van Etten Lake (PRVEL) program and the Upper Manistee monitoring effort are also proving to be great ambassadors in spreading the value and ease of volunteer stream monitoring.

In 2007, Huron Pines began working with Michigan Clean Water Corps (MiCorps) on a project to monitor the Pine River watershed, which feeds into Van Etten Lake near Oscoda, MI. The first sampling event for the PRVEL watershed occurred in October 2008. A dozen volunteers were treated to very nice weather in the fall and collected samples for what would be the first data collected under the approved Quality Assurance Protection Plan, ensuring its inclusion in the MiCorps database.

Spring of 2009 saw volunteers return to monitoring coldwater streams in the Huron Pines service area. As with many volunteer stream monitoring programs, the PRVEL Watershed Coalition volunteers had to reschedule the sampling event this spring due to extremely high water levels. After a delay of nearly two weeks, the volunteers were able to revisit the five sites for the second sampling event. Though the samples from those events are still being identified, it is anticipated that the MiCorps stream score will be similar to those from the fall event. Those are as follows:

- Pine River (South Branch) - Campground: 48.7 (excellent)
- Pine River - Denolf Property: 45 (good)
- Pine River - Kings Corner Rd: 50.9 (excellent)
- Van Etten Creek - Barlow Rd: 35.2 (good)
- Van Etten Creek - Barlow Rd (state land): 35.6 (good)

Working with the Watershed Coalition in the PRVEL watershed was the first volunteer stream monitoring project of its kind for Huron Pines. Because of its success and appeal, there are many other groups in the Huron Pines service area that are interested in becoming involved with ways to monitor the streams of their watersheds. In fact, on May 30th, the first collection of macroinvertebrates for the Manistee River system took place. With the help of Huron Pines AmeriCorps member Kristin Thomas, serving with the Michigan Council of Trout Unlimited, 30 volunteers gathered to collect, sort, and identify macroinvertebrates from 4 sites in the Upper Manistee River system. Expanding the Huron Pines volunteer stream monitoring effort has, so far, yielded good results. The Upper Manistee sites scored as follows:

- Manistee River - Deward Area: 47.6 (good)
- Manistee River - Thorsen Property: 44.2 (good)
- Goose Creek - Goose Creek Rd: 44 (good)
- Portage Creek - Portage Creek Rd: 38.9 (good)

It was noted, however, that these scores are overlooking the wide variety of stonefly species present in the Manistee River system and it was recommended that much more knowledge would be gained if the samples were to be identified down to the family level.

There are several other citizens that have begun to express interest in conducting macroinvertebrate sampling and stream monitoring in their watersheds, and Huron Pines is always looking to strengthen and expand their programs. If you would like to join either of the existing programs or are interested in developing an effort closer to your home watershed, please contact Patrick Ertel, Huron Pines Project Manager, at 989-344-0753 ext.19 or by email at Patrick@huronpines.org.

About Huron Pines:
Huron Pines conserves the forests, lakes, and streams of Northeast Michigan. This mission is achieved by the organization's efforts to coordinate hands-on conservation projects while also helping grassroots conservation partners to be effective at the local level. For more information on watershed projects throughout the 11 counties of Northeast Michigan, visit www.huronpines.org.

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Article 5:
Volunteer Corner: An Interview with Gene Stagner

Wanting to learn from and recognize the volunteers who give of their time and energy to monitor the health and quality of our lakes and streams, the MiCorps team created a new section of the MiCorps Monitor dedicated to these individuals. For the August 2009 installment of the Volunteer Corner, the MiCorps team caught up with stream monitor Gene Stagner, a relatively new volunteer with the Pine River / Van Etten Lake (PRVEL) Watershed Coalition, to learn about his experiences thus far.

MiCorps Monitor: *First of all, thank you for your time and for letting us ask you a few questions. I see that you're a volunteer with the PRVEL Watershed Coalition, which received a MiCorps Volunteer Stream Monitoring grant last year to conduct monitoring within the Pine River / Van Etten Lake watershed. How long have you been a volunteer stream monitor with the Coalition, and what keeps you coming back?*

Stagner: Going on two years, now. I'm a fly fisherman and I wanted to learn more about the bugs in the river. There's so much more in there than you'd even know at first glance. The commitment to the group has kept me involved in the project, and I suspect that we'll continue the monitoring even after the grant ends next year.

MiCorps Monitor: *What is your role as a stream monitor?*

Stagner: Right now I'm leading the sampling for the project. I organize the sampling events and do most of the identification, which is quite time consuming, given that we sample at five different sites. If needed, I also help out with the sampling, as well. We do this twice a year at each of the five sites for the project.

MiCorps Monitor: *Sampling at five sites? That sounds like a busy group! Tell me about your monitoring team. Is it the same group of volunteers each time?*

Stagner: It's actually two teams. So I'll lead one of the teams if both groups are sampling on the same day, or both of the groups if they're sampling on different days. We have a list of 15 people and we need at least four per team for each event. We have some rotation, depending on who's available. The group is mostly retirees who live along the lake, although we have some middle-aged working people, too. Not many young people.

MiCorps Monitor: *How healthy is the river, in your opinion? How quickly would you likely see a change in conditions?*

Stagner: Well, we have Van Etten Creek which empties into the Pine River in Alcona County before that dumps into Van Etten Lake. Our monitoring is mostly on the Pine River, which I'd say is healthy to a point. However, Van Etten Creek is on the EPA's

non-attainment list, so it's not very healthy. The creek is pretty narrow and shallow and it runs through primarily a rural, agricultural area. The Pine River is pretty healthy upstream where it's cooler, but downstream, toward Van Etten Lake, it gets warmer and it's not really habitable from a fish standpoint. However, about a mile upstream from the lake at our monitoring point, the river is still fairly healthy from a macroinvertebrate standpoint. The lake is pretty healthy except for sand that comes into the lake from the river. So we have some good and bad stuff. However, there are lots of different bugs to find – it's pretty diverse in that respect.

MiCorps Monitor: *So tell me about the watershed. What kind of land uses are nearby that you might expect would impact these water bodies?*

Stagner: Van Etten Creek runs through a rural area, and it's pretty sparsely populated along the Pine River. Downstream of the river is national forest and state lands. There's really little or no development in the county. There are some farmers, but not everyone is actually farming. Some of them are taking measures to reduce their impacts to the water quality, so that's good.

MiCorps Monitor: *What words of wisdom do you have for others who might be interested in volunteering as a lake or stream monitor, or starting a volunteer monitoring program?*

Stagner: It's fun to get out and be in the river, and to learn. One volunteer told me he had no idea all this stuff was in the river. I think it's important for people to be more careful with water in the future. From a personal perspective, I hope to be able to train others in the identification process. There are literally hundreds of samples to identify - and I've definitely learned a lot since I started. The MiCorps training sessions are really helpful. Now, when I go fishing, I take my net and do some of my own sampling just to see what's out there.

MiCorps Monitor: *In your time as a volunteer monitor, what has been your most interesting find?*

Stagner: I think just the diversity of bugs. There are stoneflies that range in size from 1/8 inch to 2 inches long. And they're pretty ugly under a microscope!

MiCorps Monitor: *What is your favorite part of being a stream monitor?*

Stagner: I really like looking at the bugs. It's fun to sort and go through them and start identifying. In reality, they're not that hard to identify. Most things are pretty easy, like insect larvae. The hard part is identifying down into next level. At that point you're looking for subtle characteristics. But I ask a lot of questions of other experts and do a lot of looking in books. That's the fun part – expanding your knowledge.

About the Pine River / Van Etten Lake Watershed Coalition Monitoring Program:
Volunteers from the PRVEL Watershed Coalition, in conjunction with Huron Pines, applied for and received a grant through the MiCorps program, which provides grants for water

quality monitoring in wadable streams and rivers. The monitoring primarily includes an evaluation of benthic invertebrate communities and stream habitat. The essence of this project is to have volunteers that live or recreate in a particular watershed get out and collect aquatic insects at various sites. These insects, upon identification, will tell the story of the water quality in each stream reach because of their sensitivity to environmental conditions. Five sites, including two on Van Etten Creek, are monitored by the group. For more information on the Coalition, visit: www.huronpines.org/project/46.

Do you know an extraordinary volunteer lake or stream monitor? Please send your nominations for future installments of the Volunteer Corner to Laura Kaminski, MiCorps Program Administrator, at laurak@glc.org.

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Article 6:
MiCorps Updates

CLMP Volunteer Gets National Press

Longtime CLMP volunteer, Ralph Vogel, is slated to be featured in the upcoming Summer 2009 issue of the *Volunteer Monitor*, a national publication of the U.S. Environmental Protection Agency's Volunteer Monitor Project on volunteer water quality monitoring. Be sure to check it out and read about Ralph's work at: www.epa.gov/owow/monitoring/volunteer/issues.htm.

Great Lakes Restoration Initiative Funding

As mentioned in the last issue of the MiCorps Monitor, President Obama's FY2010 budget proposed $475 million in funding for Great Lakes restoration in the form of a new Environmental Protection Agency-led, interagency Great Lakes Restoration Initiative. Efforts under this initiative will target significant problems in the region, including invasive species, nonpoint source pollution, and contaminated sediment. The latest information from the EPA states that over $250 million of these funds will be awarded through competitive grants and project agreements to non-federal entities for implementation of restoration activities. Be sure to check out the EPA's website to learn more about this opportunity and to stay up-to-date on the timing of Requests for Proposals for possible funding to entities within the state. An anticipatory RFP is expected to be announced by EPA in late August. Community groups, local units of government, watershed councils, and other nongovernmental entities can apply. So start forming your project ideas and teams!

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Article 7:
Volunteer Monitoring Program Spotlights: Alabama Water Watch & Wisconsin's Citizen-Based Water Monitoring Network

Edited with permission from program sources by Ric Lawson.

In this issue, we are putting the spotlight on two programs that have goals that are similar to MiCorps, but which take slightly different approaches. MiCorps staff thought it would be instructive to periodically examine volunteer monitoring programs in other states to give us a basis of comparison and possibly learn about what has worked (and what has not) elsewhere. This article presents a snapshot of these programs as they compare to MiCorps. Take a look at their websites yourselves and let us know what you think. Is there anything in these programs that MiCorps should adopt or learn from? Send your comments to the MiCorps discussion list.

Alabama Water Watch

The first program, Alabama Water Watch (AWW), is similar to MiCorps in that it is a statewide initiative with a mission to develop volunteer monitoring of Alabama's lakes, streams, and coasts. The Alabama Water Watch (AWW) Program was initiated in 1992 with funding from the Alabama Department of Environmental Management (ADEM) and US EPA Region 4, and it is coordinated from the Auburn University Fisheries Department. The AWW Program model has been extended to several countries through a program called Global Water Watch, coordinated through the Auburn University, International Center for Aquaculture and Aquatic Environments.

AWW staff member, Rita Grub, prepared a summary of the program.

The program includes a custom-developed, relational database of volunteer monitoring data with a mapping interface, training workshops, technical support and educational resources. With a much longer history than MiCorps, AWW has connected with a larger number of volunteer groups and individuals than MiCorps. They also work with a different range of monitoring parameters, including chemical parameters and bacteria monitoring.

For more information about the AWW program, visit their website at: www.alabamawaterwatch.org.

Wisconsin's Citizen-Based Water Monitoring Network

In Wisconsin, the University of Wisconsin-Extension and the Wisconsin DNR worked together to develop a network of programs and volunteers. They work in partnership with

nonprofits, counties, nature centers, and numerous local interest groups across the state to implement the network. The network includes three levels to accommodate the varied interests and time availability of citizens. Everyone initiates participation in Level 1 (introductory programs). After that, citizens can choose to participate in Level 2 (status and trends) or Level 3 (special projects). Programs are available for stream, lake, and wetland monitoring. One unique aspect of the network is a plan that is integrated within the state's Water Monitoring Strategy. The Citizen Lakes Monitoring Network begins with secchi disk transparency measurement, much like MiCorps' CLMP and also includes a clean boats program. The Water Action Volunteers combines river monitoring with clean ups and storm drain stenciling. In that program, volunteers measure six parameters including dissolved oxygen, temperature, transparency, flow, habitat, and macroinvertebrates. They also have a database to store information and technical training and resources. Level 2 and 3 projects and programs utilize more technical procedures and are designed for volunteers with a proven amount of experience and commitment.

For more information about Wisconsin's Citizen-Based Water Monitoring Network, visit their website at: watermonitoring.uwex.edu/index.html

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