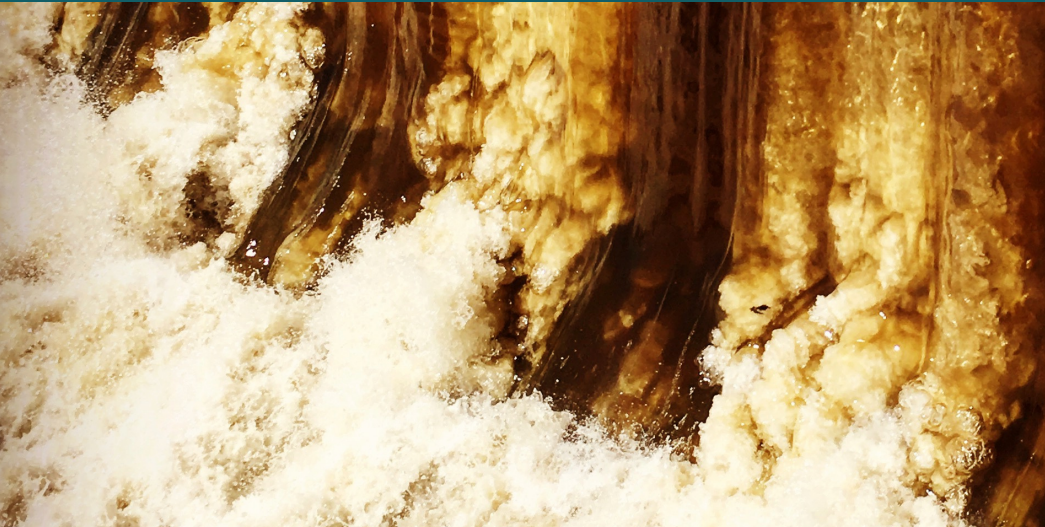


# RIVER CONNECTION



## Bug Bios

It's the Big Year of Bugs, so let's learn more about some of them!

### Early Spring Bugs

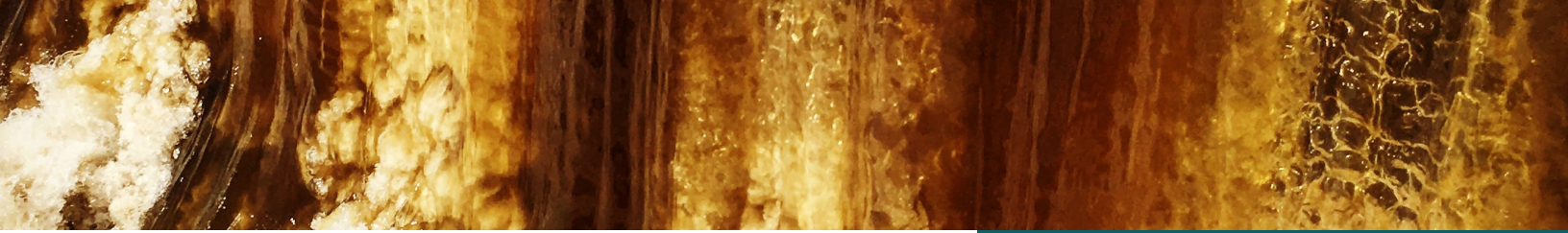
by: Anders Hanson

As you may know, it is the Big Year of Bugs. It has also been record breaking warm this winter so we have seen more small, multi-legged critters than we usually do at this point in the year. As a result, our team is extra intrigued by all things bugs.

Let's back up...what are bugs? The answer depends on who you ask. I generally group any small critter without a backbone in the non-scientific category of bugs. Bugs often have lots of legs, too. Entomologists use the word bugs to refer to true bugs which are a specific group of insects in the order hemiptera. True bugs include cicadas and shield bugs. Some insects with the word bug in their name are not technically part of this order. Lady bugs are in the coleoptera order with beetles. Lightning bugs, which are also called fireflies, are not bugs or flies. They are also a type of beetle and are in the coleoptera order. The Park District's Big Year of Bugs is focusing on the looser and more commonly accepted use of the word bug and this article will be farther reaching than just the hemiptera order and insecta class. Back to winter...even during "normal" (whatever that means) or "cold" winters, insects and spiders and other bugs can be observed in Minnesota. This is contrary to what most of us grew up thinking and learning about insects.

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## Early Spring Bugs, Continued.

Most adult spiders die in the winter but some spiders can be seen on snow on mild winter days (~25°–35°F). Larry Webber, who is kind of the expert on Minnesota spiders, says that spiders are rarely seen on the snow when it is below 20° or above 40°. Wolf spiders tend to be more diurnal in the winter, which makes their active schedule line up with more humans. Dwarf spiders are a tiny but common winter spider and they are actually more active hunters in the winter than they are in warmer seasons.



Winter crane flies resemble mosquitoes but are a type of fly. They are sometimes referred to as winter gnats and winter midges. Winter crane fly adults can be seen when it is cold and they prefer the cold (but not frigid) temps due to lower risk of predation. Male winter crane flies group up and can even form swarms to do an aerial dance in the hopes of attracting a female mate. If these flirty dances are successful, mating will occur and the females will lay eggs. Occasionally eggs are laid in or under the snow!

Snowfleas are a type of springtail. They can jump but cannot fly. They can be found in the soil and leaf litter. They have a special antifreeze protein that gives them higher tolerance to cold temperatures than most insects. As a result, they can be observed on top of the snow as snow melts and openings appear. Sometimes they are seen in large numbers near the bases of trees and since they are attracted to sap, they can be found in sap buckets. I am curious how these non-flying critters can get up to a bucket; they must be decent climbers, too.



Continued on page 3

## Eastern Eyed Click Beetle *Alaus oculatus*

### Insect Order:

Coleoptera  
aka: The Beetles

### Description:

1–2 inches long. Black with white speckles over most of their body. And large oval patches on the thorax that function as “false eyes” to trick potential predators into thinking they are much bigger than they are.

### Habitat:

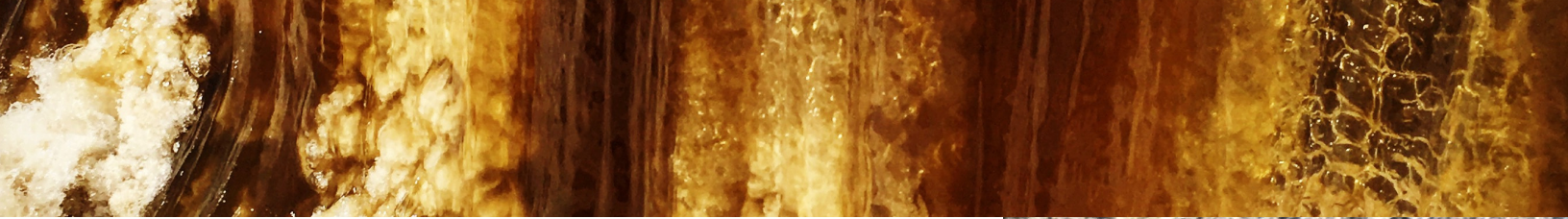
Found in deciduous and mixed forests/woodlands in North America and Central America.

### Life Cycle:

Eggs are laid in the soil or in decomposing wood and continue to live there as larvae. As larvae, they predate other larvae that eat decaying wood. The larvae then pupate in rotting logs and emerge in spring.

### Interesting Fact:

They have a spine on the underside of their thorax that they can use to catapult themselves out of danger by “clicking” or flicking that spine using stored up energy.



## Early Spring Bugs, Continued.

Mourning Cloak butterflies are one of the only butterflies that hibernate as adults. They stay cozy nestled under bark and in small crevices in trees. They can be seen flying around even when there is still snow on the ground. Look for them slurping sap in holes on trees created by yellow bellied sapsuckers. These butterflies mate in March or April.



These examples of late winter and early spring bugs are another reminder that nature is seldom simple or binary. There are almost always complexities and exceptions to the black/white and oversimplified rules or trends we learn and assume about nature. Bugs aren't just a summer thing, so keep your eyes and ears open this time of year if you are a bug lover like most of us.

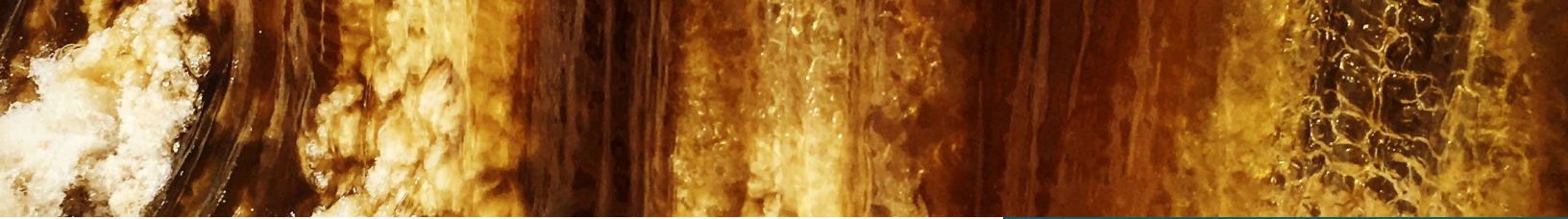
## Volunteer Appreciation Dinner - Save the Date!

We are already thinking about our next Volunteer Appreciation Dinner. We've officially got it on the calendar, so make sure you get it in yours by saving the date for June 4.



We will be going on a hard hat tour of our new building as well as sharing good food, good company and celebrating the amazing work you do for us here at Mississippi Gateway! More details to come as we get closer to the date.





# Volunteer Opportunities

## Weekend and Evening Program Support

Volunteers are needed for a variety of weekend and evening programs. There is a link with more information in the same email that this newsletter was sent as well as dates, times and sign up information.

## Phenology Community Science Project

Winter may have just begun but we are already thinking about spring! Our Phenology Community Science project is getting ready to start back up again. This is a project that includes going out into the park and making observations about specific species of plants and animals. Volunteers can expect to come once a month (April–November) and spend about 1–3 hours making observations, although you can come more often if desired. Our training will be Saturday, April 6, 1–2:30 p.m. There will be a link to the sign up in the same email that this newsletter was sent.

## Water Quality Community Science Project

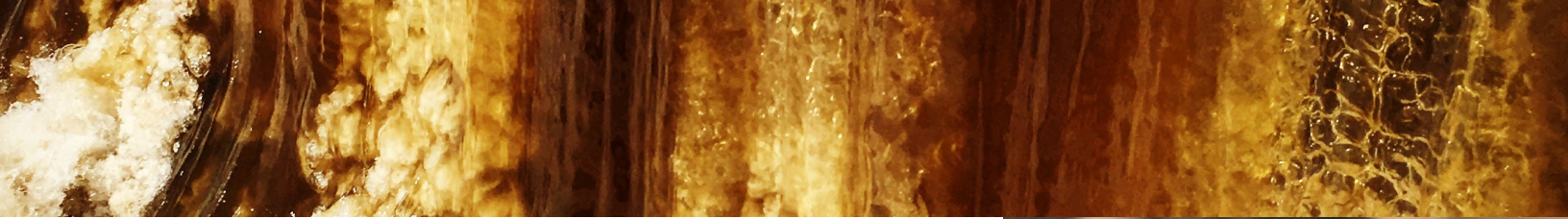
We are starting up our very own Community Science project on the Mississippi River. We are looking for volunteers to come out April–November, about once a month, to do water quality testing. This will help us gain a baseline of how the river is doing, and how it changes throughout the year. This testing will include physical and chemical tests throughout the entire season, and the biotic index (catching and identifying the invertebrates found in the river) when the river is low enough. We expect about 1–2 hours each time you come out. Volunteers must have access to a smart phone or tablet and be comfortable using their own data for this project. Our training will be Saturday April 6, 3–4:30 p.m. There will be a link to the sign up in the same email that this newsletter was sent.



*More opportunities on the next page...*

"Changing the world always needs volunteers."





# Volunteer Opportunities, cont.

## Educational Insect Order Posters

We need a new set of insect order posters created. We are looking for posters that are about 18 x 24 inches with each poster depicting an insect order. Each poster would include the name of the order (e.g. hemiptera), the common name for the order/groups of insects found within the order (e.g. True Bugs), pictures with examples of insects found in that order (could be photos or hand drawn), and then some info on the back about the order and major identifying features. We will provide materials.

## Bug Photography

We are looking for volunteer help to get some great bug photos for our Big Year of Bugs. These photos would be used on our social media platforms and potentially other things like fliers, educational tools or even future Volunteer Newsletters.

## Park Photography

We are looking for volunteers to get out into our park and take cool, interesting or just plain pretty photos. These photos could be landscapes, animals, plants, rocks...really anything related to the nature in our park. These photos would be used on our social media platforms and potentially other things like fliers, educational tools or even future Volunteer Newsletters.

*If you are interested in being a part of any of these opportunities, or have any questions, please contact Ashley at [Ashley.LeVoir@ThreeRiversParks.org](mailto:Ashley.LeVoir@ThreeRiversParks.org).*

