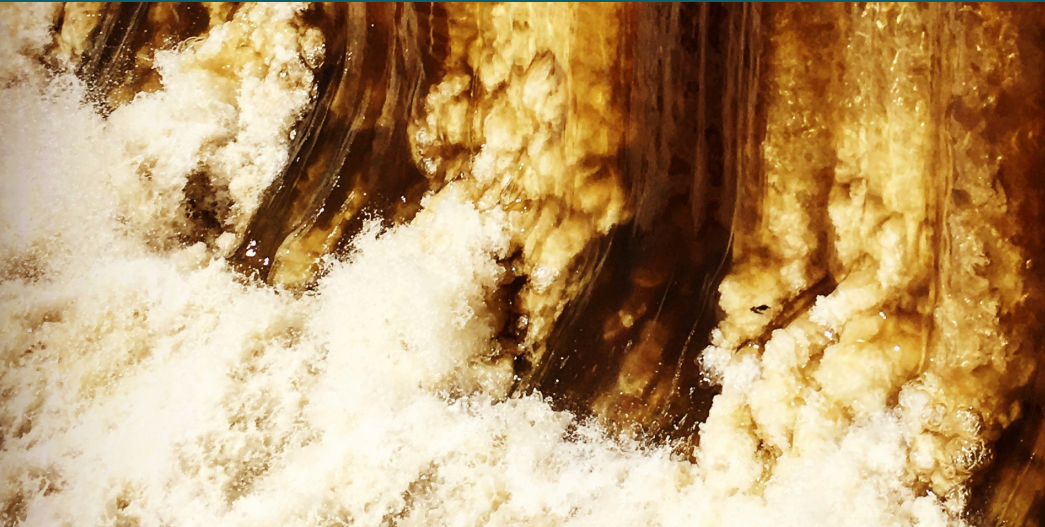


# RIVER CONNECTION



## Spring Celestial Events

by: Alan Holzer

Winter is my favorite time to go stargazing. The atmosphere is crisp and clear, the night-time world is quiet and the early evenings mean I don't have to sacrifice my goal of getting enough sleep to see the night sky. There are, however, amazing events to see in the sky all year round and this spring is no exception.

In late March, the full moon will pass through the outermost part of the Earth's shadow. This is called a 'penumbral lunar eclipse' and is not easy to see because the moon's light is only darkened somewhat, not blocked altogether. This eclipse will start a few minutes before midnight and wrap up around 4 a.m., so it's a good one for you night-owls out there.



Continued on page 2



## Bug Bios

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







## Spring Celestial Events, Continued.

This year's solar eclipse is getting most of the attention this spring. A solar eclipse happens when the moon moves between us and the sun, blocking its light either partially or completely. Eclipses have generated many myths and legends around the world with several different takes on why they happen. Stories from many cultures have a spirit or beast (a dragon or wolf, for example) causing the eclipse by taking a bite from the sun. Sometimes the only way to get the sun back is to promise to work harder or change one's bad habits. Other people see the sun and moon as lovers—they are very busy, but when they do have time to get together they turn the lights out for privacy. Still other cultures view an eclipse as a time of good luck.

While we won't see a total eclipse in Minnesota, there should still be a dramatic bite taken out of the sun on April 8. If it's clear, we'll see a drastic change in the light that afternoon, which in turn will affect bird and insect activity. Animals may take the change in light as a cue to head to a hive, roost or den and settle down for sleep. Others, like deer, may become more active as they usually do during the evening. Regardless, life will return to normal once the moon has moved on. This will be North America's only total solar eclipse for the next 20 years (there will be many lunar eclipses to enjoy, though!)



Meteor showers are the other night sky event to pay attention to this spring: the Lyrid meteor shower in April and the Eta Aquarids shower in May. April's full moon will be on April 23. This is unfortunate timing for viewing the Lyrid meteor shower (April 16–25), but if you like the very early morning you may still see some of the 'shooting stars' after midnight. This meteor shower is caused by the earth passing through a debris field left by the comet Thatcher, which last visited our solar system in 1861. Comet Thatcher will be back in the year 2278, but each April we can enjoy the sky show put on by its dust.  
Continued on page 3

## Dark Fishing Spider *Dolomedes tenebrosus*

### Arachnid Family:

Pisauridae

aka: Nursery Web Spiders

### Description:

7-26 mm long body. Males are smaller than the females. Leg spans are 50-90 mm. Their abdomen is dark with chevron like markings. Their face is black bordered by a white color, and their legs are long, thin, covered in hairs and have alternating dark and light bands.

Add a little bit of body text

### Habitat:

Often found near moving streams, ponds, lakes and swamps. But can also range as far as 100 meters away for hunting.

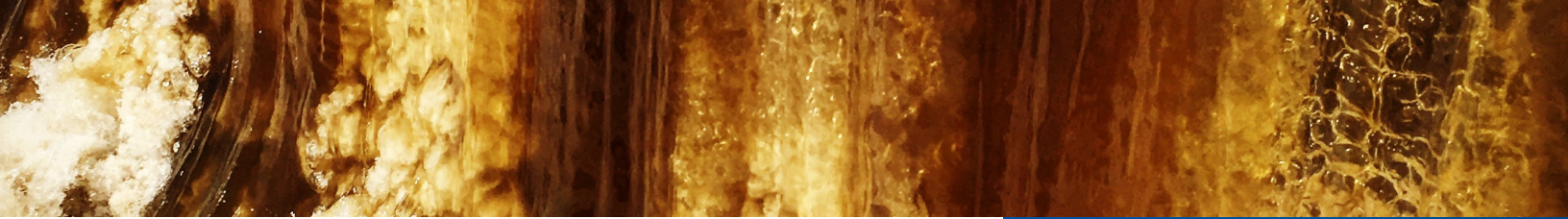
### Life Cycle:

Adults start mating in summer and an egg sack is produced. The female wraps this egg sack in silk, turning it into a sphere. She then carries it in her jaws until the spiderlings emerge and does not feed while carrying it.

### Interesting Fact:

This is one of the largest spiders found in Minnesota and often gets mistaken for wolf spiders. While mating, the females will often eat their mate. The males will sometimes sacrifice themselves to ensure a chance to mate.





## Spring Celestial Events, Continued.

In contrast, viewing should be great for the Eta Aquarids meteor shower in early May. A new moon will mean darker skies, and we should see an average of one shooting star every two minutes. This shower is caused by debris from Halley's comet, which has visited the area of the Earth every 75 years for thousands of years. The dust from this comet also causes the Orionid meteor shower each October. Halley's comet is the only comet that comes around often enough for a person to possibly see it twice in a lifetime. It last visited Earth in 1986 and will next appear in 2061.

So, if you prefer your sky-viewing warmer but later, this spring is for you! And please take time on April 8 to gaze at the sky (with appropriate eye protection, of course) and wonder at the unusual chance to see a solar eclipse in action.



## Volunteer Appreciation Dinner - Save the Date!

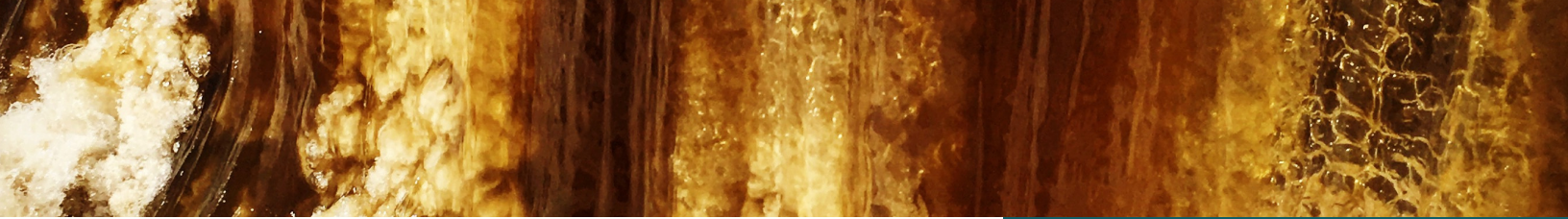
We are already thinking about our next Volunteer Appreciation Dinner. We've officially got it on the calendar, so make sure you get it in yours by saving the date for June 4, 2024.



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 to 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.

### Trail Cams

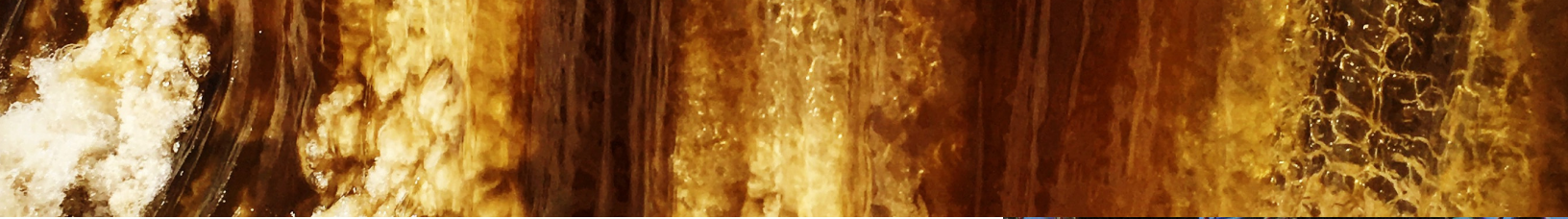
We are looking for someone to take our trail cams into the park and set them up in various places to catch some great wildlife shots. We will provide you with the trail cams and train you in on how to use them.

*More opportunities on the next page...*

"Changing  
the world  
always  
needs  
volunteers."







## Volunteer Opportunities, cont.

### Animal Paintings

We have wooden cut outs of animals that are in need of painting! We are looking for someone to paint them to look like the animal they are cut out to be. These animals range from 6 inches to about 2 feet in length. We will provide supplies unless you have your own that you would prefer to use.

### 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.LeVair@ThreeRiversParks.org](mailto:Ashley.LeVair@ThreeRiversParks.org).*

