



Join us in documenting emergence of mayflies!

We are seeking observers along the Mississippi River to track the timing of seasonal mayfly emergence. You can join this effort by learning to identify the two species we are tracking and report at the Mayfly Watch phenology monitoring sites or your own location.

The US Fish & Wildlife Service is interested in tracking the timing of mayfly emergence along the Upper Mississippi River. Our hope is that our neighbors of the river, armed with their mayfly identification, will learn to notice the seasonal changes that occur on the river during the summer.

Better predictive models will help inform managers when to take measures to ensure the public's safety - such as turning off lights on bridges and encouraging people to stay off the roads - during the spectacular mayfly emergence. Also, the number of mayflies in a particular year shows just how healthy the waters of the Upper Mississippi River are, and how much food is available to all of the other animals who rely on mayfly nymphs for food.

Here is how to get started:

1. **Join *Nature's Notebook*.** See our specifics of observing (www.usanpn.org/nn/guidelines) if you need more details on getting started.

2. **Join Mayfly Watch.** During registration, check the box next to Mayfly Watch, under USFWS, Region 3 in the Partner Groups list.

If you have already registered a ***Nature's Notebook*** account, go to your **Observation Deck**, click the link to My Account Details, and add yourself to the group.

3. **Check your Observation Deck.** Under Sites you will be able to switch back and forth between My Sites and Mayfly Watch Sites.

- For observations made at one of the **Mayfly Watch Sites**, be sure you select Mayfly Watch from the dropdown and you will see the sites for the group.
- For observations made at your own site, set up a site under My Sites and add mayfly to your site. Follow these instructions (www.usanpn.org/nn/guidelines) on how to create a site and add animals.

4. **Find your pool.** If you will be monitoring at one of the Mayfly Watch Sites, view the navigation pool maps (at www.usanpn.org/fws/MayflyWatch) to find the pool that is closest to where you live.

4. **Observe mayflies.** Report what you see (yes/no/not sure?) for mayflies following the instructions for mayflies (www.usanpn.org/nn/Hexagenia_bilineata) or giant mayflies (www.usanpn.org/nn/Hexagenia_limbata). You should survey the area within 5-10ft of where you are standing. You may need to walk around the area, inspecting the vegetation along the shoreline for several minutes. *Remember, mayfly abundance may change hourly - you can report multiple observations in one day by reporting the time at which you made the observation.*



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We are interested in the following phenophases for this project. **If you observe mayflies, report "yes" to the phenophase that represents the majority of the mayflies you see.**

	mayfly, <i>Hexagenia bilineata</i> (brown or black in color)	giant mayfly, <i>Hexagenia limbata</i> (yellow in color)
Active subadults: One or more subadults are seen moving about or at rest. Mayfly subadults (subimagos or "duns") are duller in color than adults, and have cloudy wings with a fringe of small hairs.		
Active adults: One or more adults are seen moving about or at rest. Mayfly adults (imagos or "spinners") are brighter in color than subadults, and have clear, glassy wings		
Dead adults: One or more dead adults are seen, including those found on roads.		

Then, report how many mayflies you see of each species using the abundance options on the datasheet:

Johnson Mayfly Emergence Scale

1 = Slight



Total individuals in immediate observation area (within a 5-foot radius) range from 1-99.

2 = Light



Total individuals in immediate observation area range 100-500.

3 = Moderate



Consistent coverage of surfaces (pavement, windows, walls, vegetation); small groups of individuals under lights.

4 = Heavy



Thick coverage of surfaces. Notable groups of individuals under lights form small- to medium-sized "piles".

5 = Very Heavy



Very thick coverage of surfaces with minimal surface area exposed. Large groups of individuals under lights form large-sized "piles".

For more information, contact **Cindy Samples**, Upper Mississippi NWFR, 507-494-6216, Cindy_Samples@fws.gov.