

### **Creature Feature** **Fireflies**



Fireflies, or lightning bugs, are a treasured part of summer in Michigan. These insects are beetles, in the family Lampyridae. There are about 170 species in the United States and Canada, but only about 30 species can be found in the Great Lakes Region.

We notice fireflies because of their ability to light up. This phenomenon is called bioluminescence, and in this case, produces light, but not heat. The light show that we witness is actually the courtship process for these beetles. In most species, the males fly around flashing a specific pattern with a specific frequency. The females, perched in the grass, watch the show, and respond with the species specific pattern when they are ready to mate. In one species, after the female has mated with a male of her own species, waits in the grass and flashes a pattern for a different species. When an interested male lands, hoping to mate, she eats him.

Once a female has mated, she lays eggs in the soil. After 3 or 4 weeks, the eggs hatch and the firefly larvae move to the surface of the ground or onto trees where they hide under bark ridges. The larvae eat earthworms, terrestrial snails, and slugs. They will also eat small dead animals and other organic matter. Fireflies overwinter as larvae, digging into the ground or hiding under loose bark. The larvae also glow, warning predators of their toxicity. Fireflies can spend 1-3 years as larvae, depending on their species.



As you enjoy the summer evenings, be sure to check grassy areas for these unique beetles. Count their flashes and patterns and see how many species are hanging out in your backyard. If you're interested in helping scientists track populations of fireflies, check out Firefly Watch at [www.mos.org/fireflywatch](http://www.mos.org/fireflywatch).

### **Nature Notes**

Scientists are concerned that the firefly population is declining. There are a few things you can do to help fireflies make your yard their home.



Minimize the use of chemical fertilizers and pesticides in your yard.

Fertilizers can add lethal salts to the soil, while many pesticides are indiscriminate and kill the eggs and/or larvae.

Mow as little as possible and maintain a few areas with long grass. Mowing disturbs adult fireflies while they are resting and short grass is less appealing than long grass.



Add trees and shrubs to your landscape and allow dead leaves to accumulate in some areas of your yard. These elements help ensure a food supply for the larvae as well as providing hiding places for them.

**Visit the Visitor Center Office for program information.**

This inSTALLation is available online at [www.chippewanaturecenter.org](http://www.chippewanaturecenter.org) under the Naturalist Section.