

JULY 15-31, 2016 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow

SILVER-SPOTTED SKIPPER



Silver-spotted Skipper, *Epargyreus clarus*,
on Bee Balm, *Monarda fistulosa* © Dick Harlow

This is probably the easiest skipper butterfly to identify. As it is a larger skipper with a flashy white spot under its hindwing and yellow spots on its forewing, it is easily seen energetically flying from one group of flowers to another. Although it is a strong and rapid flyer, males will remain in a general area hoping to show off for a mate or to repel other possible female suitors.

This is a very successful butterfly having an extensive range and a wide ecological tolerance to change. Ecologically it is considered a generalist. Its range extends from southern Maine to Georgia and Florida.

This species can be seen in any garden where nectar is prevalent. However, it prefers brushy second growth areas as well as the edges of marshes, roadsides or clearings.

JULY 15-31, 2016 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow



Silver-spotted Skipper, *Epargyreus clarus*,
on *Monarda didyma* © Dick Harlow

The caterpillars of this species have a large variety of plants on which they will feed, one of the reasons they are so numerous. The host plants of this species include a wide variety of legumes such as Black Locust, Wisteria, Tick-Trefoils and others further south.

Filamentous Algae



Filamentous Green Algae, Spring 2016
at EastView's South Retention Pond © Dick Harlow

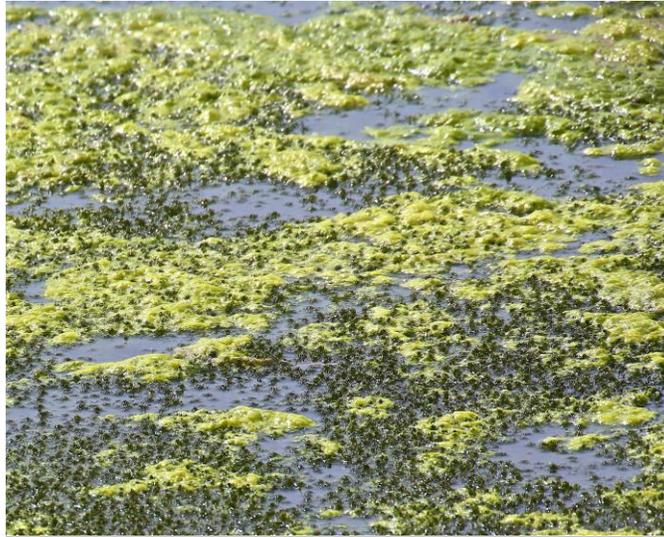
Filamentous algae are long strands of single celled plants that when matted together look like greenish-yellow matted wool either on top of or under the water. There are many species of filamentous algae that exist, yet their growth and physical appearance appear similar. All of these algal colonies start in early spring. If we have a warmer than normal winter as we did in 2016, then these algal colonies would begin to develop in late winter.

JULY 15-31, 2016 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow

A shallow pond or parts thereof that are three feet or less, plus sunlight and warm temperatures are the requirements these algal spores need to begin growth and reproduction. Because phytoplankton (plant plankton), single celled plants, reproduce very quickly, this appearance of color or physical appearance of many microscopic plants in the water is called a "bloom". When filamentous alga cells join together to form long hair-like strands, sometimes called colonies, they form large mats, both underwater and at the surface.

Is this a problem? Yes! Why? Because this condition is indicative of nutrient-rich, stagnant, warm water conditions. So? Our retention ponds are warm water, and for the most part they are stagnant pools of water. They become nutrient rich when fertilizer flows into them from rainwater runoff; not so much from the lawns, although they may contribute. Most of the runoff comes from water runoff over hard surfaces such as our streets and walkways. This allows the water to move quickly dissolving the fertilizer left on these surfaces to be quickly dispensed into drains that empty into our ponds. This runoff saturates the pond with super nutrients, which causes the algae to grow exponentially. Why is this a problem?



Filamentous Green Algae, along with other algae developing reproductive structures,
South Retention Pond © Dick Harlow

When you have an over abundance of living plant cells in a closed water system, those cells that can't absorb sunlight die. When these dead cells begin to decompose the bacteria that are decomposing the algae are using oxygen. Consequently, oxygen is robbed from other beneficial life in the pond. This then becomes an anaerobic sewer of decaying biological matter. Not healthy for pond life, for any associative organisms that use the pond, or for that matter our view here at EastView.

Is there a solution to the problem of an anaerobic water condition developing in each pond? Yes! Add oxygen to the water by putting bubblers on the bottom and allowing air (oxygen rich air) to bubble up through the shallow water column. This would result in fewer algal mats developing or none at all. Therefore, the ponds would be healthier and be more beneficial to the various organisms that use the two ponds.

JULY 15-31, 2016 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow

Is this expensive? Yes and No! Electricity needs to be brought to the ponds' edges so that the bubblers can be plugged into 115 volts. Then they could be unplugged during the winter allowing the ponds to freeze. The cost is bringing electricity to the ponds' edges and the purchase of the bubblers. Ideally each pond should have three bubblers, but could suffice with two each.

EASTERN COMMA



Eastern Comma, *Polygonia comma*, feeding on *Asclepias incarnata*, Pink Milkweed ventral view
© Dick Harlow

Look under the wing near the bottom in the center you will see a white crescent sitting on a brown patch with light brown in the middle of the crescent. Against a darker background it would be easier to see. That crescent is the comma that gives this butterfly its name.



Gray Comma, *Polygonia progné*, Dorsal view © Dick Harlow

JULY 15-31, 2016 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow

The Eastern is a common butterfly and widely distributed, but I have to admit that I did not see it that often until I moved to Vermont. However, its range extends from Maine to Georgia including northern Florida.

On the other hand the Gray Comma, which is a more northern species can be local in abundance. Even though this comma tends to be boreal, the species does extend its range south during the fall into New York, Pennsylvania and along the Appalachians into Virginia and North Carolina.

The host plants of these butterflies are nettles and elms, Wood Nettle and hops where hops are still grown. Commas' are a wary butterfly, and I was lucky to get these pictures.

OBSERVATIONS

BUTTERFLIES

Cabbage White
Clouded Sulphur
Eastern Comma
Gray Comma
Canadian Tiger Swallowtail
Pearl Crescent
Acadian Hairstreak
Monarch
Viceroy

DRAGONFLIES

Common Whitetail
Eastern Pond Hawk
Widow Skimmer

DAMSELFLIES

Marsh Bluet
Eastern Forktail

AMPHIBIANS

Gray Tree Frog
American Bullfrog
Leopard Frog

MAMMALS

White-tailed Deer
Coyote (calling)

JULY 15-31, 2016 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow

Gray Squirrel
Eastern Cottontail
Eastern Chipmunk
Deer/White-footed Mouse
Meadow Vole
Muskrat

Weather Tidbits

Month of JULY 1-31, 2016

All Measurements taken at solar noon (1230 EST).

PRECIPITATION

Total Precipitation: 74.4 mm or 2.9 inches (1.1" below normal for July) and 2.6 inches below normal in 2 months.

Overcast Days: 6

WIND

Highest wind gust: July 23, 44 MPH, Direction: North

Average Wind speed for July: 1.2 mph,

Dominate Wind Direction: North

Days w/wind gusts 20-30 MPH: 4 Days w/wind gusts >30 MPH: 1

TEMPERATURE

**Mean Temp: 21.4 C⁰/70.5⁰F
Temp: 11.3 C⁰/ 52.3⁰F**

High Temp: 29.7 C⁰/85.4⁰F

Low