

JULY 15-31, 2015 NATURAL HISTORY NOTES FOR EASTVIEW

By Dick Harlow

ROSE (SWAMP) MILKWEED



Rose (Swamp) Milkweed, *Asclepias incarnate*

Photo © Dick Harlow

What a beautiful flower, intricate, precise, and fragrant. Besides being good looking, it is also beneficial even though it can be toxic.

It is found throughout Eastern North America, as far north as Labrador, west to Nevada and south to Texas. The native Indians of the Chippewa and Iroquois' tribes medically used parts of the plant, but if taken in large quantities or doses it can be toxic.

Some interesting facts: According to Norman A. Berg National Plant Materials Center, Beltsville, MD: The tough stringy stem fibers of milkweed have been used to make twine, rope and rough textiles. The downy parachutes (comas) that are attached to each seed are six times more buoyant than cork and five times warmer than wool. Large quantities of milkweed were grown for use as stuffing in pillows and lifejackets during World War II.

For those who would like to provide food for Monarch Butterflies, nectar for hummingbirds, and provide a colorful backdrop to your garden, this plant is an excellent alternative. For us here at EastView who are surrounded by clay soils, this plant tolerates heavy clay soils very well. And, because of its toxic nature is deer-resistant. This particular milkweed is more easily managed in the garden than Common Milkweed and in my opinion is better looking plus it has a pleasant odor, almost fragrant!



Rose (Swamp) Milkweed, *Asclepias incarnate*

Photo © Dick Harlow

Its other name is Swamp Milkweed because it is found along the shore of ponds and lakes and tolerates wet soil.

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BUCK MOTH – IO MOTH

Believe it or not there is a great deal of beauty in critters that primarily come out at night. There are some very interesting and beautiful moths whose colors are not drab, whose sizes are not small or tiny, whose lives do not revolve around getting into clothes or wheat bran or other cereals you might have on the shelf. Some of these moths have evolved a means of protection that is quite unique, and can result in a false perception by a predator.

The IO Moth, *Automeris io* is found in North America from southern Canada to Florida and from Montana to the east coast. It is sexually dimorphic, which means simply that there is a difference in color between male and female.



Automeris io. Female top and Male bottom
© Wikipedia

The yellow color is very apparent on the male and when the male opens his wings each of the hind wings has a definite eye spot. Whereas the female is gray, rusty brown or rusty pink on the dorsal side, such as the picture above, but when she opens her wings and shows the hind wing she too has the eye spot on each hind wing as seen below.

It is thought that eye spots have evolved to dissuade predators.



Photo © 2004 [Cotinis](#) BugGuide (female)

The host plants for this moth in our Vermont neck of the woods are birch, clover, blackberry, elms, oak, poplar and willow. The sole purpose of an adult is to breed. Adult Io Moths do not feed, but basically emerge from their cocoon to immediately find a mate. Once found and mated the female lays her eggs and dies. Adults are nocturnal and usually fly in the early evening. This is a common moth, but is becoming relatively less common in the east. Notice the striking and rather good looking caterpillar of the Io Moth.

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The sixth-instar IO Moth caterpillar.
Photo © by Andrei Sourakov

As good looking as it is, one needs to beware when viewing striking looking caterpillars. When there are bold bright marks on caterpillars those marks should be a sign, DON'T TOUCH! Youngsters can pick up a Woolly Bear caterpillar and not be harmed, but if they were to pick up an IO Moth caterpillar they will receive fierce bee like stings and venom that is potent. In other words look, don't touch!

POISON USE BY ORGANISMS

Poison, used in some form by an organism, has evolved over time as a means to compete for food or protection from predators. It can be in the fangs of a snake, in the bite of a spider or in the spines of a caterpillar.

As an example, northern climates have fewer animals that have evolved poison as a means of defense or offence, compared to the tropics. Maine does not have poisonous snakes. In the north, animals needed to evolve to find ways to protect against cold winters. Evolution has directed the energy of northern animals to find ways to hide, burrow, turn white in the winter, etc. In the south, there is no real winter, no lasting freeze or below 0⁰ temperatures or lasting snow. The further south you go, there is an abundance of organisms looking to compete for living space and food. Therefore, there is ample opportunity for predators to find food unless the food they are going after is poisonous! The use of poison as a defensive or offensive mechanism for survival has evolved more appropriately in the tropics. Therefore, even though there will be overlap, if you were to move from north to south you would find a steady increase in poisonous organisms. Consequently, the IO Moth whose range exists from Canada in the north, Florida and Louisiana in the south, east to Maine and west to Montana, has evolved its larval stage to have poisonous spines as a means of protection from being eaten. Although the caterpillar has spines the adult as it emerges from its cocoon does not.

RUBY-THROATED HUMMINGBIRD

By the third week of September the Ruby-throated Hummingbird will be on its way south and end its stay at East View for another year.



Ruby-throated Hummingbird, (F) *Archilochus colubris*
Photo © Dick Harlow

This tiny, 5-6 gram bird, will double its weight in fat reserves for its flight to southern Central America. To help it on its way, many human hummingbird lovers will be sure to have feeders filled and ready for them when they arrive. Just like we do here in Vermont in the spring!

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Watching hummingbirds zip about their territories, defending their nesting and feeding territories from other hummingbirds, attacking, chasing, with amazing flight acrobatics, one has to marvel at the high energy output, and their phenomenal metabolism.

According to Wikipedia, Ruby-throats heart rate is as high as 1280 beats per minute and breathing of 250 breaths per minute even while at rest. The oxygen consumption per gram of muscle tissue is approximately 10 times higher than that seen for elite human athletes.



Ruby-throated Hummingbird, (M) *Archilochus colubris*

Photo © Dick Harlow

Banding records show that the oldest banded hummingbird lived to 9.5 years. The older hummingbirds tend to be females, while the males live only to be around 5 years old because of the high energy output they produce defending territory, and the fat they lose during migration. This all takes its toll on males.

Due to their size they are most vulnerable to predators, such as hawks, crows, ravens, snakes, predators of all kinds that are slightly larger. However these predators will have a tough time trying to out maneuver a hummer.

OBSERVATIONS FOR MONTH OF JULY

MAMMALS

- Eastern Cottontail Rabbit
- Muskrat
- Meadow Vole

AMPHIBIANS

- Leopard Frog
- American Toad
- American Bullfrog

BUTTERFLIES

- Cabbage White
- Clouded Sulphur
- Orange Sulphur
- Monarch

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- Viceroy
- Common Wood Nymph
- European Skipper
- Least Skipper
- Dun Skipper
- Delaware Skipper

MOTHS

- Hummingbird Clearwing Moth
- Snowberry Clearwing
- Luna Moth
- Western Furcula

DRAGONFLIES & DAMSELFLIES

- Common Green Darner
- Common Whitetail
- Widow Skimmer
- 12-spotted Skimmer

DAMSELFLIES

- Eastern Forktail

July Weather Tidbits

All Measurements taken at solar noon (1130 EDT).

PRECIPITATION

JULY 2015 Total Precipitation: 51.0 mm or 2.0 inches which is 1.5-2" below normal for Middlebury.

Overcast Days, July: 11

Overcast days are any day when the sky is 95% covered by clouds at 1130 AM

WIND

Highest wind 8 JULY: 28 MPH, Direction: North

Average Wind speed for JULY 2015: 1.1 mph,

Dominate Wind Direction: South

Days w/wind gusts 20-30 MPH: 8

Days w/wind gusts 30 MPH: 0

TEMPERATURE

Mean Temp: 23.9 C⁰ 75.0 °F

High Temp: 34.1 C⁰ 93.4 °F

Low Temp: 11.8 C⁰ 53.2 °F