Observations From Nature

August, 2011

Photographs by
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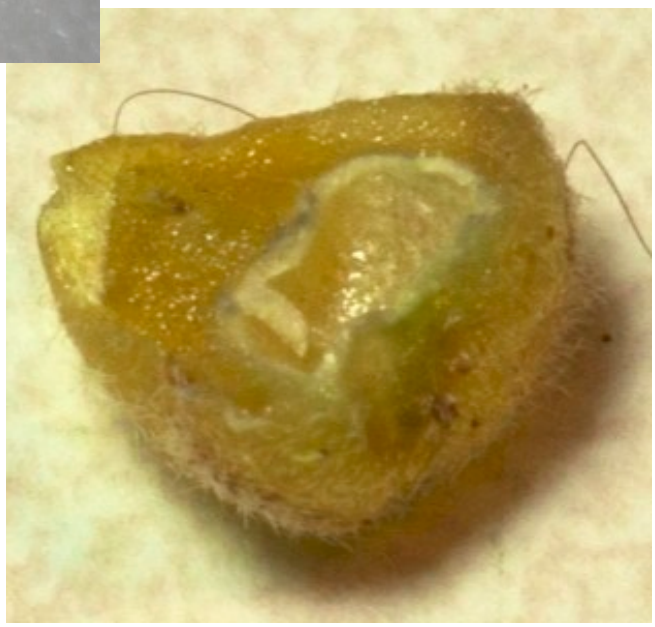
August 1

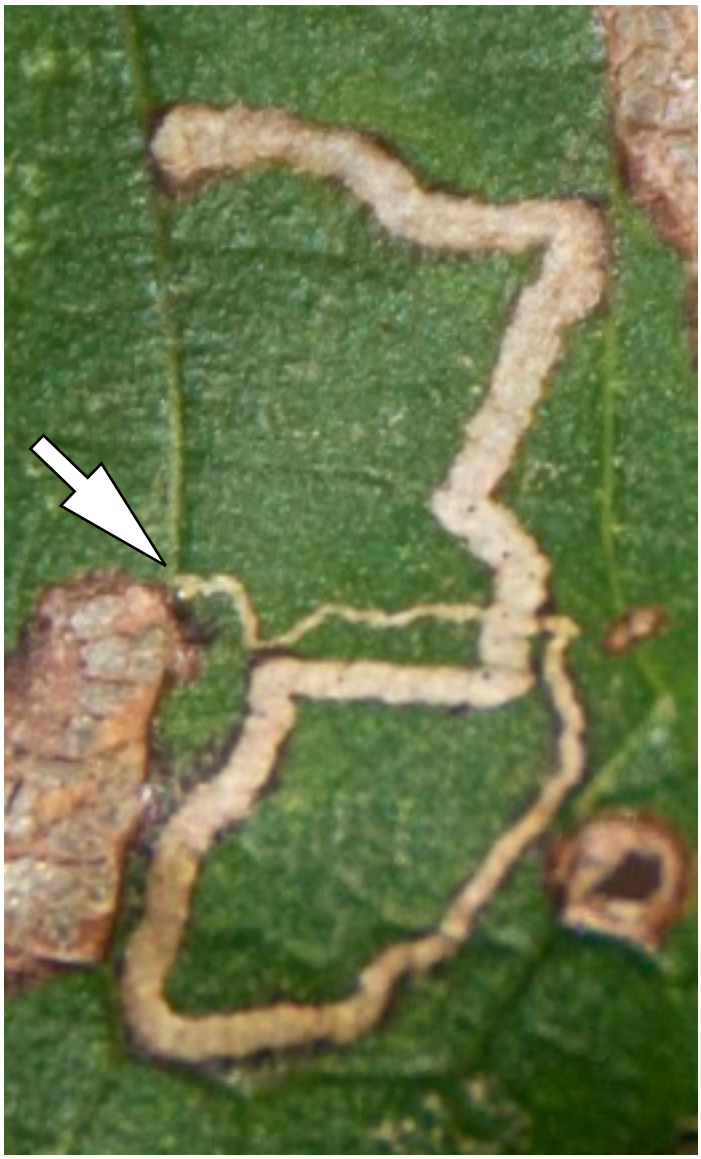
By this time of year, the leaves on deciduous trees have been around long enough to have suffered many cruel turns of fate. Insects eat

them, fungi invade them, and in some cases creatures form interesting growths called galls on the leaves. Above is shown the top of a Shagbark Hickory (*Carya ovata*) leaflet. Lesions in various states of formation are shown. The underside of the same leaflet (right) reveals some galls. These look like little onions, and are called Hickory Onion Galls. They are caused by a type of insect called the Hickory Onion Gall Midge (*Caryomyia caryaecola*). I have never seen an adult. In the photo below, I have sliced the gall on the left open to show the cavity within where the larva lives.

Here are two views of galls that I have sliced open. You can see the tiny larva inside the cavity of each gall.

Chemicals that the larva secretes cause the plant tissue to grow and produce the gall. This then provides nourishment for the developing larva. In some ways, a gall is like a tumor in animals.





August 2

The left photo shows some more leaf damage. This is the scar left by a leaf miner on a hickory leaflet. Leaf miners start as an egg laid by an insect. The egg hatches, and the larva then eats its way along the leaf making a tunnel between the upper and lower epidermis of the leaf. In this case, you can see where the tunnel started out very small(arrow), and it got progressively larger as the larva grew. I don't know what happened to this larva at the end of its tunnel. It seems as if it got stuck up against a vein of the leaflet.

August 3

A pair of Bluebirds (*Sialia sialis*) have been visiting our bird bath. Here is the male; he is really a nice dark blue this time of year.

August 4

Countless insects come to our windows at night attracted to the lights This Spiny Oak Moth (*Anisota stigma*) has landed in a crowd of tiny midges. These are non-biting midges of the family Chironomidae. When you go near an aggregation of them, such as the ones on this window, you can hear a humming sound.I don't have a great picture of a midge, but below is one that landed when I had my sheet and UV light outside for moths. It is probably a species of *Chironomus.*

August 4

I went down to the boat dock to do some more photographs of water striders, but I saw a water **spider**. The spider was very wary, and I only managed to get one reasonable picture of it as it skittered across the surface of the water and headed for shore. It was fairly large for a spider, about 1.5 inches across, including legs. I was able to identify it as a Six-Spotted Fishing Spider (*Dolomedes incanta*). There are clearly more than six white spots on its back; in fact there are 12. It is named for the six dark spots on the underside of its abdomen, which you cannot see in this view. Fishing spiders can go underwater, also. They can climb down an underwater plant, carrying a bubble of air with them. They eat insects (such as water striders) that they catch either on the water, under the water, or on land. They can also eat small fish and amphibians.

August 5

Above is a caterpillar that was crossing our driveway. It is quite a bristly little (about 1.5 inches long) creature. It is the caterpillar of the Agreeable Tiger Moth (*Spilosoma congrua*). The moth is almost pure white and is very striking.

August 8

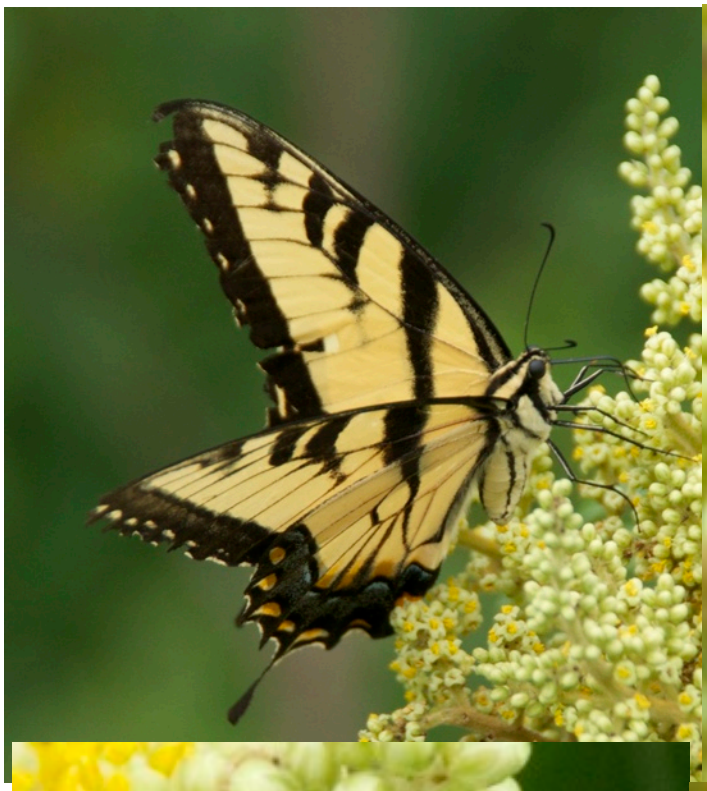
On the right is a young Five-lined Skink (*Eumeces* fasciatus) that was crawling up the wall of my house. The tail is a nice intense blue on the young lizards. It fades with age.

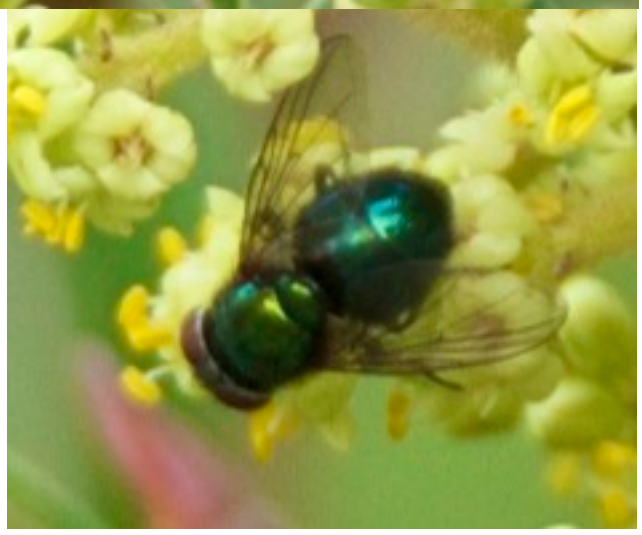
August 12-15

The Winged Sumac (*Rhus* copallinum*)* shrubs along my driveway have come into bloom now, and they are attracting a number of interesting pollinators.

In the closeup of the flowers shown to the left, the yellow pollen can be seen at the base of the flower clusters. The individual stamens with pollen can also be seen in the pictures on the following pages.

Many insects have been coming to collect pollen and nectar from these flowers. The following pages show some of these creatures.

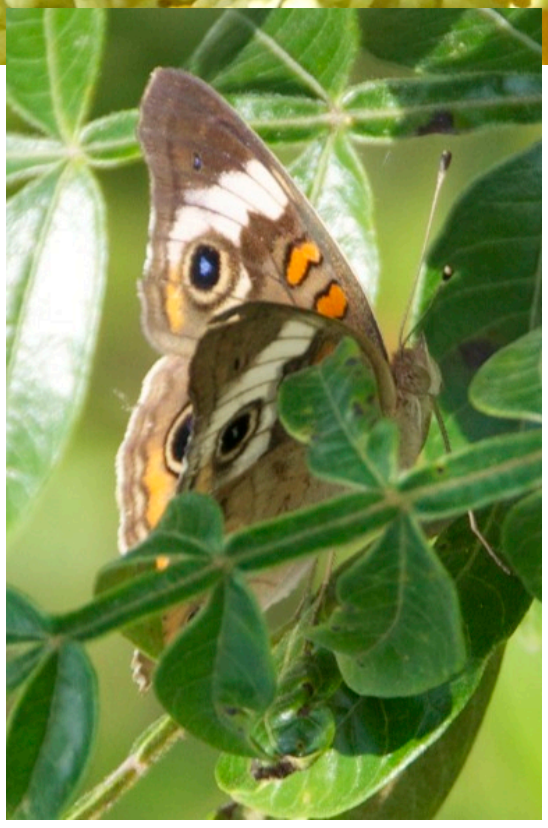




Top left is a Tiger Swallowtail Butterfly (*Papilio glaucus*); Top right is a Bee Fly (*Exoprosopa albifrons*); the two middle pictures are a leaf-cutter bee (*Megachile sp.*). Notice the large amount of pollen that has been gathered by this bee and stored in special hairs on its abdomen. These bees cut semi-circular pieces out of leaves and use them to provision their nests. To the right is a Greenbottle Fly (*Lucilia sericata*). These bottle flies are usually seen on garbage, excrement, or carrion. Their eggs hatch into larva called maggots, which feed on dead or dying flesh. Study of how much the maggots have grown can help to determine how long a body has been dead.

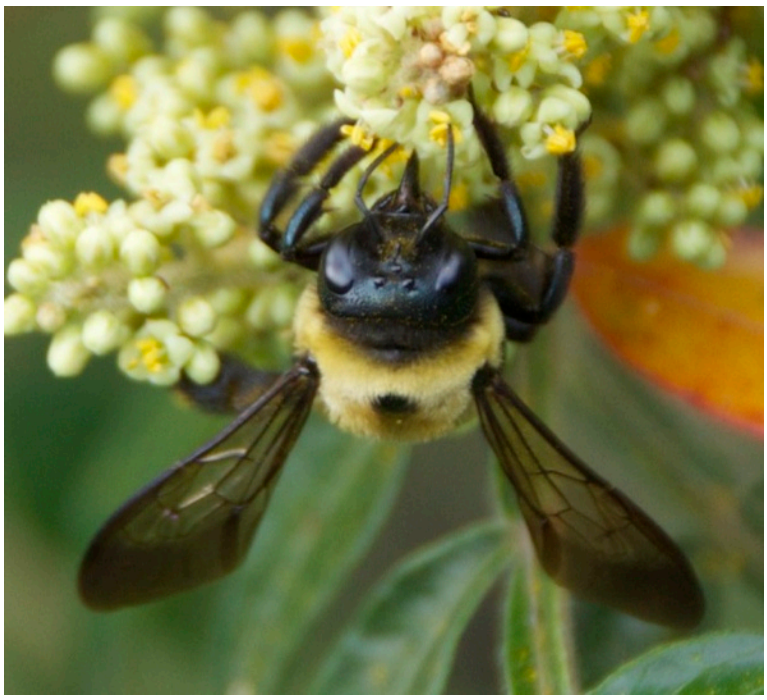
Here are some more collectors of sumac pollen. To the right are two views of a sand-loving wasp (*Tachytes sp.*) with very interesting green eyes. Sand-loving wasps are solitary creatures who dig burrows in the ground and provision them with insects, often flies.

Immediately below is a Great Black Wasp (*Sphex pensylvanicus*). It is also a solitary species. This specimen was about 1..5 inches long. It typically equips its burrow with grasshoppers or katydids.



To the left is a Buckeye Butterfly (*Junonia coenia*) Their larvae eat a big variety of plants. In this photograph, the "wings" on the side of the rachis of the leaf can be seen. These flaps of tissue are what gives this plant the common name "winged sumac".

More sumac pollinators: the first row below shows two views of a Carpenter Bee (*Xylocopa virginica*). These are the ones that drill the neat round holes into wood such as deck rails. Females provision these holes with a paste made of pollen an nectar which the developing larva eats. There are more than 500 species of carpenter bees world-wide, but we have only two types in the eastern U.S. Superficially, they look like bumble bees, but bumble bees have hairs all over their abdomen, whereas *Xylocopa*, as you can see has a shiny, hairless abdomen



The two bottom photographs above show a Black Thread-waisted wasp (*Eremophila aureonotata*.). These wasps dig burrows and typically provision them with a moth or butterfly caterpillar for their larva to eat.

August 18

Here is a very large spider found on the garage steps. This is another species of fishing spider closely related to the one I pictured above in the notes for August 4. This one is *Dolomedes tenebrosis*, I think. This one was about 2.5 inches across. These spiders do not make webs, but actively pursue their prey.

August 21

Last night I put out a sheet and a light for attracting moths. In addition to clouds of midges, several small moths appeared. Pictured below is a Grape Leaf-roller moth (*Desmia funeralis*). Larvae of this species roll up grape leaves and hide inside while they eat.

This one is the Friendly Probole Moth (*Probole amicaria*). I like its swept-back antennae. The larva of this creature is sometimes called the Red-cheeked Looper, and it is a member of the inch-worm group of caterpillars.

August 24

We saw these nice Angus (one Black Baldy in the back) cows along the road to Statesboro. The Cattle Egrets (*Bubulcus ibis*) accompanying them are really interesting birds. The generic name, *Bubulcus*, is Latin for "herdsman" and well describes their habit of associating with large mammals such as cattle. They prey on insects and other small creatures that the large animals flush during their feeding. These birds are great wanderers. They were originally found in Europe, Asia and Africa. Cattle Egrets were first spotted in the Americas in 1877 in South America. They apparently flew across the Atlantic Ocean from Africa. Since then, they have rapidly expanded their range across South America and into North America. I even saw one (unfortunately dead) at Brown's Bluff on the continent of Antarctica.

August 28

This is a Milkweed plant (*Asclepias viridiflora*} growing along our driveway. It is a single stalk about three feet tall, and it is quite top-heavy from the unbels of flowers near the top. I hope some of the flowers are pollinated so that the pods will appear later on. So far, I have not seen any pollinators on this plant.