

Newport Forest

Friday August 26

3:25 - 8:35 pm

Weather: prec. 16 mm; RH ; BP ; calm; sun/cld; T 27° C

Purpose: to collect plants and arthropods

Participants: Pat. Kee

We arrived late, but quickly made up for lost time. Pat sat on a bench by the old Snag (a long-dead Bitternut on the edge of the Gallery Forest), her favorite birding spot. I took the Nikon for a walk along the farm track (Edgar's Road) and zeroed in on a milkweed plant, knowing that it might harbour some unusual species. Bingo. Under a leaf there lurked a brownish spider with what looked like extraordinarily thick forelegs. Then I realized that the legs were doubled. For some reason I could not get the Nikon to focus properly, so had to be content with a shot with my Coolpix all-purpose camera.

The problem with the Nikon and other "feature-loaded" cameras, is that every button serves multiple functions and if you're in the wrong mode, you get the wrong function when you press that button. In any event, I discovered that briefly touching the focus button would set an autofocus function in motion, but pressing the button for more than a second starts a 10-second timer. (!)

Today was a good day for galls. Patrolling the Regeneration Zone, I came upon a bunch gall at the top of a white oak sapling, about one metre tall. (Later at home, I went through over a dozen "gall galleries", but found no bunch galls at all for Oak.) Further along the trail, I found a dense concentration of round galls on some hickory leaves. Later, wandering under a Red Oak on my way to see Pat at the Snag, I found a series of pea galls growing serially from a long, thin terminal branch. Again, no luck later with my gall-eries. The hickory leaf galls did, however, produce a match, giving us a new species of (minute) fly or midge, the maker of the gall. Morphologically and by host, most galls are specific.

Relaxing in the Nook, we spotted a Striped Chipmunk, allowing us to breathe a sigh of relief. Last week's feral cat did not get ALL the chipmunks! Just outside the Nook, I was nearly struck on the forehead by a Giant Swallowtail that was probably obsessing on nectar and not looking where it was going. Later, a Black Swallowtail also showed up nearby.

Pat proposed a walk to the creek. In the shade of the Gallery Forest, the temperature dropped from 27° C to a comfortable 22° C. At the creek we noticed a yellow powder covering the ground, the leaves of lower plants and, ultimately, our shoes.

The pollen evidently all came from Giant Ragweed, towering over us up to nearly 4 metres in height! Pat remarked that there had never been this much Giant Ragweed growing along the bank before. She collected what appeared to be more than one species of Joe-pye Weed, including what she thought was Eastern Joe-pye Weed (*Eupatorium dubium*) along the bank. Near the rapids I found a new-looking Sagittaria with very small white flowers for Pat to examine. She then returned the favour by finding some sawfly larvae chewing on a plant at the edge of the creek. Teamwork! Together we watched a Spotted Sandpiper bobbing along a log above the rapids.

After another break in the Nook (these breaks become more frequent every year!), we set out for the river. Heavy vegetation choked the trail to Mussel Beach and, since the beach was flooded from recent rains, we did not go very far. Surveying the vegetation around us, Pat found last year's Groundnut plant, now become several, all of them about to open pretty red and white flowers. But what were those podlike things sprouting in multiples from the tops of very tall stems nearby? Lilies on steroids? We thought perhaps Canada Lilies gone to seed. Were they even supposed to be in the area? It's a pity that we didn't see them when they were in flower.

Back at camp, Pat and I squeezed some more action out of the steadily declining sun by taking a few more stabs at new species. I found a large Harvestman crawling across a plant in the Nook and got a clear enough shot with the Nikon to find a match later on (a good half-dozen Harvestman galleries are now posted on the web) with a species of the genus *Leiobunum*, but could not be certain that no lookalikes existed, since these sources tend not to be exhaustive.

I did not have such luck with a spider that had concealed itself in a rolled-up leaf (also in the Nook). The Nikon refused to cooperate on this occasion and we were left to conjecture that it was a Clubionid.

We waited until sunset for raccoons to visit the baited areas. Nada. This is highly unusual and we can't explain it. Closing the gate on yet another busy day, we were greeted by a glorious display of shafts of light shooting up into the twilight from below the horizon.

Birds: (15)

American Crow (EW); American Goldfinch (RZ); American Robin (LM); Black-capped Chickadee (GF); Blue Jay (GF); Canada Goose (TR); Common Flicker

(BCF); Common Grackle (GF); Eastern Wood Peewee (GF); Gray Catbird (GF); Great Blue Heron (LM); Mourning Dove (GF); Red-bellied Woodpecker (GF); Spotted Sandpiper (FC); White-breasted Nuthatch (Tr)

New Species:

Nursery Web Spider 'Red Harvestman'	<i>Pisaurina mira</i> <i>Leiobunum [vittatum]</i>	LM/ER KD Au26/11 Nk KD Au26/11
Hickory Leaf Gall Willow Sawfly	<i>Caryomyia [caryae]</i> <i>Nematus ventralis</i>	GF KD Au26/11 Gf/FC pd/KD Au26/11

Phenology: Shagbark Hickory nutfall in progress; Giant Ragweeds spewing yellow pollen everywhere

Note on the Collectors Curve:

When conducting a species inventory within a particular group of organisms, biologists invariably encounter diminishing returns in the form of the “collectors curve”, also known as a “rarefaction curve”. It is thought to be logarithmic by most theorists. In other words, the number of species one collects is a logarithmic function of sampling effort. For example, for a curve of the form,

$$\text{Num(spp)} = 5.71 \times \ln(\text{hours spent}),$$

a sampling effort of 50 hours would net, on average, some 22 species, whereas another 50 hours would produce only 4 more, for a total of 26. Another 50 hours would produce only 2 more, and so on.

Being statistical in nature, the curve gives a rough idea of what to expect. Over the long term, however, experience tends to converge with statistics.

In the ATBI project at hand, we feel the heavy presence of this rule in groups that are already fairly well inventoried, like plants; Pat is having a tough time finding plants that she is sure are new. In other groups such as arthropods, it is still early days, so to speak. We are obviously having little trouble finding new species in this group.

IMAGES:



Nikon 995

Our second species of sawfly larva in as many visits. These distinctive Willow Sawfly larvae are nibbling away at what appears to be a Heartleaf Willow on the bank of Fleming Creek. Sawfly larvae may often be distinguished from caterpillars by having more pairs of prolegs (blue in this image).



Nikon 995

Two-striped Grasshopper on a *Helianthus* (?) in the Regeneration Zone. The stripes are dorsal and the edge of one (white) stripe can be seen at the top of the pronotum (neck) of the insect.

Below: An unusually large lily (either a Michigan Lily or a Canada Lily) sports impressive seed pods that are a good 2 m above the ground. Two of these plants were found at the River Landing. This provides yet another example of the gigantism encouraged by the unusually heavy rainfall we have received this year.





With apologies for sending more images than we normally would, we couldn't resist sharing this sunset with a shaft of light going up, in contrast to the last Bulletin that showed a beam of light going down. It must mean something, but we can't think what!