Monitoring Nature

Date and time: Sunday July 26 2015 1:20 - 5:15 pm
Weather: Pr 10 mm; RH 72%; BP 101.7; cloud/sun; W 0-5 kmh; T 29ºC
Activity: Collecting more arthropods and checking tree diseases.

Shortly after arriving on site today, I went to read the rain gauge. A large female jumping spider, *Phiddipus audax*, had unfortunately drowned in the gauge and, when I went to dump it, I found several dozen baby jumpers in the socket of the gauge, scurrying about on their silken nursery bed and possibly the offspring of this female. After the corpse had dried out, I admired her turquoise fangs.

Momma!

Today would be yet another day spent hunting for arthropods before the arthropod season begins in earnest — when the Goldenrods and Asters all come into bloom.

This time I supplemented my sweeping with passive collecting, setting out baits of rotting fruit smeared on a large log in the Nook and a can of spam emptied into a white lab tray out in the sun. Would I get anything? It didn't take long for a large number of Bluebottle flies to appear over the tray, buzzing about, landing briefly, then buzzing about some more. Hard to photograph, but I got a few useable images of a species of the (common) Greenbottle Fly which, I was sure we already had on the list. Nope. New! This kind of happy ID experience compensates for the disappointment of a "new" species which turns out to be already on the list.

Sitting in the Nook, I noticed brown blotches on the leaves of a White Elm just down the bluffs from the Nook. Doing a quick survey along the Gallery Forest, I found a Basswood and White Oak similarly afflicted. I sent images off to Donald Craig, our Forestry consultant. Is it a drying-out problem or a pathogen?

Checking the fruit-smeared log, I found only Carpenter Ants. One pair of them caught my eye. Together they carried a large fragment of banana between them. (See IMAGES.) This observation provided another happy ID experience.

I swept along the edge of the Lower Meadow, discovering at one point a gigantic harvestman of a size that I had never seen before. Although the legs were no longer than those of ordinary harvestmen, the body was a good three times the diameter. Later I read that gravid females could reach much larger sizes. So I changed my thinking to "harvestwoman" — just in case. I took the trail through the Regeneration Zone with indifferent results, then repaired to the Nook for another break. There I heard a strange call that sounded like a woodpecker. Later I listened to woodpecker calls at the Cornell Ornithological website and found the same call under "Northern Flicker", a bird I had heard that very day, but with a different call.

Back home, two sets of images gave me trouble. The False Milkweed Bug (See IMAGES) was easy to identify, but I thought it was new. On the other hand, I put an enormous amount of trouble and time into identifying a bug that we had found just last year, but had forgotten all about: the 'Bordered Stink Bug', *Normidea lugens*. Why did it take so long? It looks very much like a beetle and was slightly out of focus, so I ended up not seeing the scutellum and going through a lot of beetle material before I thought, "Hey. Maybe it's a bug!" Then, when I had nailed the ID owing to its distinctive markings, I went to the ATBI list for a routine check before posting. To my astonishment, it was already there. It's not easy to retain a memory of 1400 arthropod species or so.

As against the five new species, we had a residue of five unidentified ones (a Crane Fly, a Dictyna spider, the Harvestwoman, a Flesh Fly, and a cryptic black and white nymph) and seven "oldies" (the Seed Bug *Lygaeus turcicus*, a *Neoscona* spider, the Twice-stabbed Stink Bug, the Three-striped Mangora, the Plant Hopper *Lepryona* sp. an immature Meadow Katydid, and the *Normidea* Stink Bug). Thus 30% of the species were identified and new, 40% were identified and old and 30% were just plain unidentified. The resulting ratios aid in locating progress along the rarefaction curve. (But see the message from Dan Bickel below.)

Birds (8):
American Crow (BCF); American Goldfinch (LM); Blue Jay (GF); Common Yellowthroat (LM); Northern Cardinal (BCF); Northern Flicker (GF); Rose-breasted Grosbeak (GF); Song Sparrow (LM).

Phenology: Goldenrod flower buds now forming. Mosquitoes remain plentiful.

New Species:

'Black-headed Jumper'	*Evarcha* sp.	LM KD Sp25/15
Silver Leafhopper	*Athrysanus argentarius*	LM KD Sp26/15
Common Greenbottle	*Lucilia* [*sericata*]	KM KD Sp26/15
American Carpenter Ant	*Camponotus americanus*	Nk KD Sp26/15
'Blue Cuckoo Wasp'	*Caenochrysis* sp.	Tr KD Sp26/15

Species Notes:
The jumping spider is our first encounter with the genus Evarcha. We should have recorded the next three species long ago. Caenochrysis is only our second Cuckoo Wasp, a brilliant metallic blue, with metallic pebbling over the thorax.

Readers Write:

Dan Bickel is an entomologist at the Australian National Museum: "There is a conservative estimate of 90, 000 species of insects in North America (let's say morpho-species, and not count molecular species), so your . . . location would have a potential of some 10, 000 species. With only 1154 species of "Animalia" . . . you have not even started. To begin with you are seriously underrepresented in micro insects (say less than 2.5 mm) – tiny flies, wasps, microleps, etc. if you really want a representative list, you need to set up a few Malaise traps, a light trap, and do some Berlese extraction. Be prepared for some serious sorting and identification, and to be overwhelmed by diversity."

Chistopher Dewdney has sent along this link to a fascinating slowed-down video of the Snowy Tree Cricket "stridulating" to make its night call: <https://www.youtube.com/watch?v=iK8C5U5znZA&feature=youtu.be>

Bruce Parker is an expert on the Monarch Butterfly: "In answer to [questions about Monarch abundance], the spring weather in the American mid west was too cool and wet for optimal reproduction and egg laying. There was too much rain in Texas and Oklahoma in the early spring which delayed the Monarchs from traveling to areas further north. Cooler temperature in states beyond delayed the species from entering Ontario in good numbers. As a result, sightings are reduced and on a larger scale the migration south from Ontario in September will contain [fewer] Monarchs. The migration may also be delayed by a few weeks."

IMAGES:

If you look closely at this rather poorly focused image, you will see two ants in the upper right and one in the lower left. The pair of ants have a large fragment of apple in their jaws as they make their way walking sideways down the log to their nest at the bottom. Further along, the lone ant carries a much smaller piece in her jaws. Cooperation gets five times the amount of food back to the nest as the individual effort does.

This False Milkweed Bug (*Lygaeus turcicus*) had me quite excited until I consulted the ATBI files and found it under last year's entries. And don't be fooled by imitations. The Milkweed Bug (*Lygaeus kalmi*) sits below.