Monitoring Nature

Date and time: Monday October 14 2013 2:10 - 7:45

Weather: Pr; RH 57%; BP 102.9 kPa;

Activity: A search for invertebrates and a visit from the Snail People

I planned to spend much of the day searching under the power lines in a place we call, naturally enough, Powerline Meadow. Pat has suggested we call it "Argiope Meadow", since we always find our Argiope spiders there. But alas, always the Black-and-Yellow Argiope, never the Banded Argiope. Today, all that changed with the first arthropod to volunteer for the net, as in the image below. Thus en-



couraged, I ventured deeper into vegetation that was now browning and crisping as the days shorten and nights grow colder. In what follows I will pretend that I knew what I had each time I netted it, even though most IDs occur later, at home.

Thus the Star-bellied Orb Weaver was a delight to "find" again. In the net they

manage to scrunch up and look cryptic. Pat found our first specimen only two years ago. And then a Pygmy Grasshopper which I thought too late to be a nymphal form. It looked new. A praying Mantis flew away from me with its typical flutter of ghostly green. Was that new narrow fellow in my net a damsel bug? As usual I took five to 10 images. In my case, quality only emerges from quantity.

Back out on the road, I netted a Spotted Cucumber Beetle and a Two-stripe Grasshopper with an ovipositor as long as it was. Was she about to deposit her fall egg mass? Checking a remnant log (Bitternut) by the Snag, I found two small white mushrooms fruiting on its wood. They looked new. Heading back to the trailer I found a Meadow Mushroom (*Agaricus campestris*, at a guess) fruiting on the grassy track. The final goodbye of the now vanishing warm seasons was made by a Summer Azure butterfly, sunning itself by the trailer steps.

The next foray would take me down to Fleming Creek to check the condition of the bottom for clarity after the recent flood. The soft mud just above the rapids, had settled completely and now sported a golden hue. I imagined millions of diatoms motoring to the surface to catch some sun to work magic on their golden pigments. To check this possibility, I took a sample of the mud, as well as a mossy stone. On the way back up the bluffs, I nearly missed a white mushroom with a freckled cap hidden under the leaf litter. The name "Lepiota" popped into my mind. We would see.

A final excursion took me into Blind Creek Forest to change the batteries on the trail cams after which I raked the leaf litter from a portion of Vernal Pond A (now dried out) to see what millipedes or centipedes I could find. Nothing there, but an old log caught my eye, so I turned it over to find several healthy-looking earthworms (all *Lumbricus*, at a guess) and four slugs (all *Derocerus*, at a guess), respectively. Both genera are well-established aliens and permanent residents nearly everywhere in our area.

The sun was setting. I sat in the trailer for a coffee break, when I heard a vehicle pull up and people talking. Who could be coming in at this hour? Ready to turf out some misguided trespassers, I was relieved to find Annegret Nicolai, our snail expert, come to do a nocturnal census in the company of two of her UWO grad students. (See the image below.) Once they had departed into Blind Creek Forest, I left for the Upper Meadow for a wee astronomy session with the new telescope my son Jonathan gave me for my birthday. (a 4" Cassegrain reflector). I suspected that the bright object just above the horizon was Venus. It was. (See IMAGES.)

BIrds: (10)

American Crow (WM); American Robin (GF/E); Blue Jay (GF); Canada Goose (TR); Common Flicker (EW); Common Grackle (GF); Red-bellied Woodpecker (GF); Song Sparrow (LM); Turkey Vulture (HBF); White-breasted Nuthatch (BCF)

New Species:

Banded Argiope Argiope trifasciata PLM KD Oc14/13
'Smoky Marsh Fly' [Scoliocentra tincta] GF/LM KD Oc10/13

Species Notes: Heliomyzid flies (last entry) feed on rotting organic matter. They have no particular connection to marshes, although they are sometimes called "Marsh Flies". This one has smoky wings. Thanks go out to Seteve Palero, a U of Guelph entomologist who remarked that what I thought wasn't a nymphal grasshopper really was!

Diatom Report: I was surprised to find the diatom flora heavily dominated by a single genus, a filamentous diatom called *Melosira*, usually a minor component of most microbial samples from the creek. I have never seen it so plentiful. And of course, the golden colour comes from the yellow pigment of this species which, like other diatoms, uses a mix of different photosynthetic pigments, from chlorophylls a and b (green) to beta carotene (yellow), flucoxanthin (brown) and other minor pigments. The net colour is sometimes greenish, but usually the golden colour seen in the cells of *Melosira* and other species.

Fungus Bioblitz: Things are looking up for the fast-approaching Fungus Workshop and Biobitz, to be conducted by Dr. Greg Thorn, consulting mycologist for Newport Forest. Not only have we had some decent rain lately, but the coming week has mostly rainy days in the forecast.

Nature in Ontario's Banana Belt: Catch up on Erin Carroll's latest splendid nature images at http://erintown.blogspot.ca/ and read about her recent kayak trip down the Upper Thames.

IMAGES:



The "Snail People" referred to above are these intrepid souls who came for a nocturnal snail-hunt. Malacologist Annegret Nicolai brought two of her UWO grad students, Litza Coello (L) and Tanya Dann (R) to assist in the search. Annegret's dog "Loma" came for the adventure. I couldn't help thinking, as the three donned headlamps and plunged into the forest, that if the recently reported cougar was still in the area, it would keep its distance from three talking lights in the company of a shaggy dog!



These days, the planet Venus is a bright evening object right after sunset, to the left of the sun and higher in the sky. Through a wonderful telescope that my son Jonathan gave me for my birthday, I enjoyed a view of Venus hardly different from the web image above -- a miniature moon at the distance of Venus, but a much larger object in absolute terms.

The image tells us that Venus is on the "near" side (to the Earth) of its orbit around the Sun. According to the lit portion of our sister planet, the Sun was not only just below our horizon, but at a point where the right bisector of the crescent (an imaginary diagonal line pointing down and to the right) intersected the track of descent. Gotta love geometry!