Monitoring Nature

Date and time: Sunday September 18 2016 2:35 - 6:10 pm
Weather: Pr 18 mm; RH 62%; BP 101.4 kPa; sun/cloud; winds calm; T 25ºC
Contents: A visit from Steve Logan and the last ATBI visit of the summer.

The population of the Virginia Possum has been holding steady at Newport Forest since the year 2000 when we first came on to the property. We average about one sighting or sign per year, sometimes less, sometimes more. The Possum shown on Trail Cam #1 below is a subadult individual and was probably born there.

Arriving at the gate, I was in the process of swinging it open when Steve's grey Silverado pulled up. Steve, whom we hadn't heard from all summer, emerged with a grin. Phone problems, apparently. We drove in and settled into the Nook to get Steve's news from the Rez. **A bear sighting:** The big news is the recent bear sighting by a neighbour of Steve's. The neighbour didn't tell anyone about the sighting for a week. Meanwhile another neighbour saw a bear rooting through her garbage. The bear is reported to have two cubs with her, one of them later being found as road-kill on a highway nearby. Steve said the reports at the Rez stopped about the same time as new reports were emerging from the Ridgetown area. The last sightings to be reported on public media came from the Petrolia - Oil Springs area.

Steve has agreed to come back next Sunday for some serious trail-grooming. When

he drove off, I found myself free to begin once again the relentless pursuit of new species. I worked mainly by a combination of sweeping with the insect net and checking the "parking lots", leaves and other surfaces where an insect might be found sunning itself. As readers will see by glancing down at the New Species entries for this visit, no new species of arthropod turned up today. As readers will see by glancing at the Reappearances list at the end of this Bulletin, it wasn't for lack of trying, with some 22 species recorded on this visit. Insects were scarce.

After the recent rain, there were a few new fungal growths visible, including a nice *Xerula* mushroom growing in the grass at the edge of the Gallery Forest. I went to the river, noting yet another magnificent Marbled Orb Weaver had built a beautiful orb web across the trail. I tried to go around it, but my leg caught the anchor-plant. "Whoops!" Down came the web with an inaudible crashing noise, sprinkled with tiny spider curses: "Thanks! That web took me all *%$# day to put up." "Sorry!"

At the river, I encountered three notable events. First, I saw a Spiny Softshell Turtle dive into the river from the clay beach. Second, I spotted two Bald-faced Hornets checking some daisies beside me, as I went to change the sd card on the tripod-mounted trail cam. Third, I was serenaded by some musical Canada Geese at the other end of the beach. On the diatonic scale, I could write the notes as E-F-E-C (down a major third), or various combinations of those notes. I can't verify the pitch, just a guess, but the notes were remarkably "on".

The dominant grasshoppers of the day showed up during and after a walk through the Regen Zone, where I spotted a cooperative Red-legged Grasshopper. Back at the trailer, I found a Two-striped Grasshopper sunning on the trailer deck. Both specimens may be seen in IMAGES below, along with the bald face of our Hornet. I noted that one of the young oaks in the Regen Zone has already turned into its fall colours, although it could also be dying. We'll see.

Trail Cams: Two Virginia Possums at Hole; Silver spotted Skipper (!) at RL.

Phenology: Goldenrod turning brown, Asters peaking.

New Species: (0 % new)
(For "old" species see the end of this Bulletin.)

Species Notes:
This was only the second visit this year, where no new arthropod species showed up.

Readers Write: Insect Decline

UK Entomologist Adrian Plant writes, "The following link might be interesting to you. It provides evidence of recent decline across a wide range of taxonomic groups in the UK. I confess I forgot about this work, despite the fact that I supplied Charlie Outhwaite with ~150,000 Empidoidea records to help her analysis. She and her supervisor, Nick Isaac at BRC might be good contacts for investigating further. Isaac has a good reputation as a statistician dealing with this sort of data."

https://www.newscientist.com/article/2105677-more-than-half-of-uk-species-in-decline-some-may-soon-vanish/

Plant has sent a second link, this one to the journal *Nature*:

https://www.rspb.org.uk/Images/State%20of%20Nature%20UK%20report%20pages_1%20Sept_tcm9-424984.pdf

Honeybee Protocol: Final report for 2016:

To make this year's numbers consistent with those of 2009, I have eliminated all counting stations that are overshadowed with developing trees, leaving only open field flowering plants (mainly Goldenrod), comparable with the vegetation in 2009. The counts resulted in the following Honeybee density figures over a span of seven years, with three years omitted, owing to no counts being taken.

year	**density**	**visual comparison**
2009	0.49 HB/ha	**********
2010	0.58 HB/ha	**********
2011	N/A	
2012	0.31 HB/ha	**********
2013	0.26 HN/ha	**********
2014	N/A	
2015	N/A	
2016	0.29 HB/ha	**********

We conclude that a statistically significant decline of approximately 50% in Honeybee numbers (at Newport Forest) has occurred over the period in question.

IMAGES:

In the late summer Grasshoppers, Tree Crickets and Katydids dominate the insect fauna. Here are the two most common Grasshoppers on site, with a Twi-striped Grasshopper (*Melanoplus bivittatus*) above and a Red-legged Grasshopper (*Melanoplus femurrubrum*) below.

The “bald” face of this Bald-faced Hornet can be seen clearly in this image. The wasp is marked in a striking pattern of white stripes and bars against a black ground colour. Bald-faced Hornets live in oval nests of paper presided over by a queen. A fairly common insect.

Reappearances:
Nursery Web Spider (*Pisaurina mira*); Banded Argiope (*Argiope trifasciata*); Marbled Orb Weaver (*Ataneus marmoreus*); Bold Jumping Spider (*Phidippus audax*); Filmy Dome Spider (*Neriene radiata*); Northern Crab Spider (*Mecaphesa asperata*); Two-striped Plant Hopper (*Acalonia bivitatta*); ‘Black-backed Plant Hopper’ (*Pubilio concava*); Silver Leaf Hopper (*Athysanus argentarius*); Tarnished Plant Bug (*Lygus lineolaris*); ‘White-lined Stink Bug’ (*Neottiglossa undata*); Black-horned Tree Cricket (*Oecanthus nigricornis*); Red-legged Grasshopper (*Melanoplus femurrubrum*); Two-striped Grasshopper (*Melanoplus bivittatus*); Cabbage White (*Pieris rapae*); Eastern Tailed Blue (*Cupido comintas*); Question Mark (*Polygonia interrogationis*); Meadow Fritillary (*Boloria bellona*); Virginia Ctenucha Moth (*Ctenucha virginiana*);’Shiny Taxomerus’ (*Taxomerus politus*); Flower Fly (*Eristalis* [*interrupta*]); Bald-faced Hornet (*Dolichovespula maculata*).

Holdovers: A small, blue-spotted caterpillar; winged ant;