

**Date and time:** Wednesday July 19 2017 1:30 - 6:20 pm.

**Weather:** Pr 0 mm; RH 55%; BP 101.7 kPa; clear; winds calm; T 28° C.

**Contents:** We sample the creek, the Elbow, and the River Landing.

The weather was perfect: sunny, warm and calm. My assistant for the day, as I later realized, was also perfect. Layla Amer is an RN, a rock climber and a Yoga instructor with plans for medical school in the fall. Arriving in camp, we reviewed the day's plan in the Nook. First the creek, then the Elbow and last the River Landing.



We spent a good deal of time probing the rapids and dip-netting in the pool above the rapids. The image above shows Layla in her bare feet stalking Water Striders.

At the Lower Rapids, we did some kick-fishing. I caught a Johnny Darter and a Northern Clearwater Crayfish. She caught another crayfish of the same species and then what appeared to be a nice adult Shiner — a kind of minnow. I showed her the developing forests of *Cladophora* growing in the fast currents of the rapids. Soon I will be able to re-start the microbial part of the ATBI project. Back in the pool, Water Striders were in short supply and no Water Boatmen were in evidence, an unusual development. A sweep of the banks along the creek brought out several spiders, including a Long-jawed Orbweaver, as well as what I call the “Watermelon Spider” and two Meadow Katydid, not to mention a Forest Snail (as it is called).

On our way back up to the camp, I spotted some fan-shaped fungi and a very peculiar black ball-like object covered with spines the size of *Crategus* thorns.

After a short lunch break we headed for the Elbow on the River Trail. I have been sampling here consistently since the start of warm weather. At the Elbow, as at other favourite sampling venues, a confluence of differing habitat types almost guarantees a better sweeping haul. Among the finds here were the ubiquitous *Conocephalus* nymphs, a mature True Katydid that left the bag to pick its way gingerly across my hand, a Nursery Spider, several hoppers, including a new Flatid Planthopper, a beautiful dappled Fruit Fly and a White Moth that turned out to be a Virginia Tiger Moth. (See the Image Gallery. )

It seemed like a luxury to walk along the trench-like path made by Will (in our last visit) through the massive drift pile that had previously blocked our way to the river. I showed Layla how the clay beech at the base of the river bluffs is now half emerged from the slowly subsiding water. Our sweep at the River Landing produced a beautiful *Enoplognatha* spider with a dark green folium on its back. Then a mayfly emerged from the bag, deciding to perch for a while on my bifocals to make sure that I didn't miss it — a new species, as it turned out. .

Finally, a sweep in the Lower Meadow brought us a Japanese Beetle, a colourful grasshopper nymph, and an Ebony Bug, among other things. All in all, it had been a very productive visit, with special thanks to our new assistant. .

**Phenology:** Mayflies breeding. Monarda bloom finished, river 1' above normal

### Biological Inventory (ATBI)

**New Species:** (19% new)

'Band-legged Sheetweb Spider	<i>Drapetisca alteranda</i>	FC/ KD J119/17
Common Burrower Mayfly	<i>Hexagenia bilineata</i>	RL KD J119/17
Citrus Flatid Planthopper	<i>Metcalfia pruinosa</i>	BCF KD J119/17
'Diamondback Grass Bug'	<i>Phlegyas abbreviatus</i>	FC/ KD J;19/17
'Black Cladosporium'	<i>Cladosporium</i> sp.	FCB kd/GT J110/17

**Species Notes:**

The Grass Bug is our first species in the family Pachygronthidae of grass-eating bugs. The image is not quite up to par for presentation in these pages. The long list below represents the first instalment of the many species of nematode found on site

by specialists Tom & Kris Powers last August. This makes 24 new species for the list, with many more to come, apparently.

**Nematode species: (24)**

Anatonchinae	<i>Anatonchus tridentatus</i>
Belondirinae	<i>Belondira apitica</i>
“	<i>Metaxonchium vaginatum</i>
Boleodorinae	<i>Basiria duplexa</i>
“	<i>Boleodorus thylactus</i>
Caloosiinae	<i>Hemicaloosia nudata</i>
Cephalobinae	<i>Acrobeloides dubius</i>
Hemicycliophorinae	<i>Hemicycliophora litorea</i>
“	<i>Hemicycliophora macristhmus</i>
Laimydorinae	<i>Mesodorylaimus bainsi</i>
Macroposthoniinae	<i>Mesocriconema xenoplax</i>
“	<i>Xenocriconemella macrodora</i>
<i>Paratylenchinae</i>	<i>Paratylenchus straeleni</i>
“	<i>Paratylenchus straeleni</i>
Psilenchinae	<i>Psilenchus hilarulus</i>
Qudsianematinae	<i>Eudorylaimus carteri</i>
Rotylenchoidinae	<i>Helicotylenchus mdihystera</i>
“	<i>Helicotylenchus platyurus</i>
Swangeriinae	<i>Oxydirus oxycephalus</i>
Tylenchinae	<i>Filenchus orbis</i>
“	<i>Filenchus quartus</i>
“	<i>Filenchus thornei</i>
	<i>Tylenchus naraensis</i>
<i>Tylencholaiminae</i>	<i>Tylencholaimus constrictus</i>
“	

(location, date and finder information to be added later.)

**Recurring Species:**

Northern Clearwater Crayfish (*Orconectes propinquus*); ‘Variable Longjaw’ (*Tetragonatha versicolor*); ‘Red-headed Dwarf’ (*Hypselistes florens*); Crenellated Nursery Spider’ (*Pisaurina mira*); Cobweb Spider (*Enoplognatha ovata*); Ebony Jewelwing (*Calopteryx maculata*); Common True Katydid (*Pterophylla camelifolia*); Meadow Katydid (*Conocephalus* sp.); Two-striped Grasshopper (*Melanoplus bivittatus*); Four-lined Plant Bug (*Poeci-locapsus lineatus*); Ebony Bug (*Corimelaena pulicaria*); Tarnished Plant Bug (*Lygus lineolaris*); Japanese Beetle (*Popillia japonica*); Seven-spotted Lady Beetle (*Coccinella septempunctata*);

Virginia Tiger Moth (*Spilosoma virginica*); 'Red-spotted Green Midge' (*Axarus festivus* gp); 'Dappled Fruit Fly' (*Eutreta novaboracencis*).

**Holdovers & Discards:**

One mayfly adult, an aquatic larva; fluffy aphid; cryptic spider.

**Current ATBI counts by kingdom:**

Plants	491
Animals	1339
Fungi/lichens	285
Protists	200
Eubacteria*	24
Total	2339

\*includes cyanobacteria.

**Readers Write**

Allen Woodliffe, a well-known naturalist, comments on mosquito scarcity: “Regarding the mosquitoes: it must be all in the timing, in between hatches or something, depending on how many species have been found at Newport. I've been in Lambton County on several occasions in the last couple of weeks, including today, and while some sites seem to have no mosquitoes at all during that particular visit, at other sites there seems to be no end to them!”

Naturalist Sandy Levin writes on mosquitoes and crayfish: “. . . still a seasonal amount of mosquitoes in the city. Crayfish: Sure it wasn't a terrestrial crayfish?”

Brother Chris Dewdney writes on mosquitoes and cicadas: “At any rate, the cicadas have just started to call here. (July 10th). Apparently only the males call, which is why (as I witnessed last year) you can see a cicada on the wing before you hear any calls. As for mosquitoes, well, it's hardly the "year of the mosquito" that Environment Canada called for in late May. It's been quite wet here in Toronto (though not on Pelee Island . . .) and yet there are not very many mosquitoes either on Pelee or here in Toronto.”

**Image Gallery**



I hold my bifocals up while Layla takes this closeup of a *Hexagenia* Mayfly that found my glasses a perfect perching spot — while I was wearing them! Two long caudal filaments sprout from the Mayfly's rear end. Males find them useful (somehow) during the mating dance. The life of the adult form is very short, “ephemeral” in a word. Hence the name for this order of insects: Ephemeroptera.



A mid-stage nymph of the Two-striped Grasshopper\*, *Melanoplus vitiatus* looks good enough to eat. Colour patterns on grasshopper nymphs are often wildly different from their adults, making it difficult to guess the species.

\*An outside possibility for the ID would be *M. differentialis*.



A Virginia Tiger Moth admires Layla's ring then poses for her camera. This moth is very common and sports an abdomen with orange bands and black spots — just visible below its "chin".