Date and time: Sunday August 10 2014 1:45 - 6:10 pm

Weather: Pr 0 mm; RH 65%; BP 102.1 kPa; sun/haze; calm; T 28° C **Activity:** Searching for aquatic arthropods and whatever else shows up

It's high season in the temperate arthropod world. The Goldenrod and Aster is about to go into bloom as the sweep-and-spot quest continues. But the search is not confined to meadow or forest. What about aquatic arthropods, the very orders and families that our entomologist visitor Dan Bickel mentioned during his visit to Newport Forest on August 2? Fleming Creek has many treasures yet to yield up.



Erin Carroll is an aquatic biologist with the St. Clair Conservation Authority based in Strathroy, Ontario. Today she felt like a "Newport Break," so we met on site at two pm, assembled our kit, and took the bluffs trail down to the creek with its riffles and long pools. Schools of minnows drifted near the shore and further out a pond skater darted then drifted with the current. Erin caught two small fish, a rather featureless minnow and a Perch fry. "Look at this!" She brought a long, dark larva out of her fine-mesh net and dangled it in front of me. I pretended it was beautiful. "A Tipulid larva." Some Crane Flies can be identified from larvae alone.

"Let's check for Darters," I suggested. We kicked over two dozen riffle rocks with

no result. The same thing happened a week ago when I tried to show visitor Dan Bickel our marvellous Darters — small rapids-loving members of the Perch family. Embarrassingly none. Where have the Darters gone?

Riffle rocks held most of the invertebrate treasures we sought. Tiny prisoners of surface tension were deftly coaxed into vials from the bottoms of rocks. At one point Erin spotted one of the predacious larva in her vial attacking another. "Oh dear, they're starting to eat each other!" We climbed back up to the top and into the welcoming shade of the Nook, as we call it. We also brought up a large pickle jar aquarium filled with creek water and some foliage that had been immersed along the bank. I hoped to see some hydras deploy their tentacles, but none appeared. Another, smaller jar contained a large tuft of the ubiquitous alga *Cladophora*, always guaranteed to contain a community of protists, not to mention tiny swimming Crustaceans like Copepods, Ostracods and Amphipods. We put the jar in sunlight to marvel at the tiny bubbles of pure oxygen forming on the algal filaments as they went about the business of splitting carbon dioxide. Where else can you see atomic-scale chemistry in action?

Both before and after the visit to Fleming Creek, Erin logged some butterflies, finding Summer Azure, Cabbage White, Giant Swallowtail, Black Swallowtail, Hickory Hairstreak, and Great Spangled Fritillary, among others. She also took some sweep samples from the adjacent meadow, netting two new beetles. We walked through the Regeneration Zone, but found surprisingly few arthropods on display. Returning to the Nook, we were both startled when a *very* large moth fluttered overhead, larger than a Giant Swallowtail. It looked greyish and "ragged." Some of the Royal Moths (Saturniidae) will fly by day. Was it a Cecropia?

The final foray of the day was a walk to the river, but we were stopped by the web of a Micrathena Spider. We crawled under the web, like a rite of passage, while the Micrathena sucked the life out of a fly it had just caught. Would the river be low enough to expose the clay beach at the base of the bluffs? It was. We called out the tracks we spotted: Canada Geese, Deer, Herons, Raccoons, Sandpipers. I forgot to look for turtle tracks, specifically those of the Spiny Softshell. We came upon valves of the Three-ridge, Heel-spitter, Pocketbook, and other mussels. Erin spotted a Belted Kingfisher across the river and drew my attention to its rattle-call.

On way back, I happened to glance at the dew-decked web of a Funnel Spider. And there was the spider, an Agelenid. We teased the web and the spider retreated into its funnel. I changed the cards on the trail cams on the way out. Omigosh! It was six o'clock already. Time to leave!

Birds: (12)

American Crow (FC); American Goldfinch (LM); Bald Eagle (GF); Belted Kingfisher (TR); Blue Jay (GF); Canada Goose (Rd); Common Yellowthroat (LM); Gray Catbird (BCF/LM); Song Sparrow (LM); Red-tailed Hawk (FCF); Rosebreasted Grosbeak (LM/HBF); Turkey Vulture (LM)

New Species:

'Wide-tailed Sowbug'	Hyloniscus sp.	FCB oaKD Au07/14
'Protean Spittlebug'	Clastoptera proteus	LM ecKD Au10/14
Ant Mimic Beetle	Euderces picipes	LM ecKD Au10/14
Pecan Gall Curculio	Conotrachelus [elegans]	LM ecKD Au10/14

Notes:

- **1.** The Pecan Gall Curculio feeds on *Phlloxera* galls that occur on leaves of *Carya*, principally Pecan and Hickory. Although our specimen lies within the range of variation in the field marks for this species, one still has to be cautious in the case of large genera like *Conotrachelus*, which has at least 62 species of which only 15 or so are readily web-accessible to be examined by us. Hence the square brackets.
- 2. More species will appear here as Erin comes to grips with the specimens she collected from Fleming Creek. The same thing is true, hopefully, of my own microbial assessment of a "Cladophoran community" sample about to start.

Preliminary List: Erin collected Representatives of the following groups today:

Caenidae Squaregill Mayflies

Elmidae Riffle Beetles Empididae Dance Flies

Heptageniidae Flat-headed Mayflies

Megaloptera Dobson Flies and Fish Flies

Rhyacophilidae Caddis Flies Tipulidae Crane Flies

IMAGES:





Two recent mysteries appear on this page. The image on the left belongs to the Variable Dancer, *Argia fumipennis*. But is it not the subspecies A. *fumipennis violacea*? The image on the right seems to be an all-black morph of the Asian Ladybeetle, *Harmonia axydris*. Black morphs of this species are known to exist, but usually have a faint red spot on either side of the wing covers. This one has none. Have we missed a species in the constellation of lookalikes?



This Virginia Deer, possibly a buck, seems interested in Trail Cam #1. Several Images show it lurking about, sniffing (nice shot of muzzle) and browsing nearby.