

Date and Time: Saturday August 10 2013 1:45 - 7:40 pm

Weather: Pr 13 mm; RH 56%; BP 102.1 kPa; sun/cloud, NW 0-10 kmh, T 26° C

Activity: Maintenance, an environmental scan, and unusual plants

The term “environmental scan” may sound impressive, but it’s just a fancy way of saying, “We took a walk”. We had some heavy maintenance scheduled for today, but Steve Logan, our weedeater guy, developed back problems this morning. That left Darren Jacobs, our chainsaw guy and TTLT Steward, waiting for me in the Nook when I arrived -- late.

We removed about 25 to 30 young Black Walnuts, from 1 to 4 m height, from the Regeneration Zone (RZ), a one-hectare reforestation project, as shown below.



In the distant background is a mature Black Walnut, one of the parent trees for the dozens of saplings springing up everywhere in the RZ. In the foreground is one of

the young saplings we took out. We left about a dozen walnuts of 3 m height or more to preserve that component of the would-be forest. The RZ looks rather bare in the view above, but there are plenty of small saplings of oak, ash, maple, and aspen that simply aren't high enough to stand out, the veg here being waist-high. The RZ currently has over a dozen Tulip Trees, all of them thriving. In fact Tulip Trees are the only planted species to enjoy a 100% survival rate in the RZ!

About to head out, Darren and I spotted a small day-flying moth on a flower of White Snakeroot. It looked more like a colourful fly. Later at home, Pat took one look at the image. "It's a Sphynx Moth." I objected: "Whoever saw a Sphynx Moth that small?" But there it was on Tom Murray's moth galleries under Sphingidae. Well, at least it would be a new species. No? In the ATBI files I found "Tr PD J110/06" beside "Nessa Sphynx Moth". Pat had observed one seven years ago. It must have looked familiar. (See the note on rarefaction below.)

We walked to the River Bluffs to sit and enjoy the view, then continued on down into the Riverside Forest. Along the way, Darren pointed out a small clump of Bush Clover. At the time I didn't realize that it would be a new species for us.

In the Riverside Forest we came upon the "Giant Hogweed" mentioned in the previous issue. As official Ecologist at Moraviantown, Darren was already familiar with the Hogweed ID problem. He didn't think it was Giant Hogweed. I took several images. Continuing on to Bluebell Woods (a component of the Riverside Forest), Darren suggested we go off-trail to the river -- about 30 m north of us at that point. Here we found a curious open area with a thick river grape vine hanging loose from a tree and sporting a firmly attached pair of bicycle handlebars at the end! The bank there was about 3-4 m high. We quickly inferred that kids would use the vine-handlebar combination to swing out over the river, let go of the handlebars, and plunge into the water below. But what kids? Where would they come from? (Human Ecology)

Darren had enjoyed many tutoring sessions with Jane Bowles and today showed his enhanced talents as a botanist. In the midst of our ponderings over the swing, Darren pointed out a Green-headed Cone Flower. Would it be new? I collected it, being sure that several other individual plants were present.

We walked through the Riverside and Beech-maple Forests, then began to ascend the Hogsback. Near the top, Darren pointed to a small plant by the trail. "That looks like Wild Coffee." The name was not familiar to me, so I collected that plant, as well. We took another break at the top of the Hogsback. Feeling restless,

Darren soon got up from the bench and went off on a mysterious errand, returning with a plant he called Hellborine and a bit of lore. “Anyone who wanted to be chief would have to eat one of these. If he survived, he’d be the chief.”

Back in the Nook, I had Darren confirm that the fish he called a “Carp”, caught several weeks ago, was *Cyprinus carpio*, as shown in the Peterson *Guide to freshwater Fishes*. This yielded another new fish species.

After Darren’s departure, I cleaned up camp, chasing a Red Squirrel away from the seed bag, but showing a friendlier attitude to Peter Rabbit gleaning seed from the floor of the Nook. Although the maintenance operation was reduced, Darren had saved the day from being unproductive.

Back home Pat was delighted with the Bush Clover, but doubted the Wild Coffee specimen. The leaves were not “perfoliate”, so it must be Orange-fruited Horse Gentian, she says, and already known to be at Newport Forest.

Birds: (no report)

Phenology: Wingstem coming into bloom

Invasives Report: It’s not Giant Hogweed, but seems to be a Cow Parsnip!

New Species:

Slender Bush Clover	<i>Lespedeza virginica</i>	RB DJ Au10/13
Common Carp	<i>Cyprinus carpio</i>	TR DJ J115/13

Note on rarefaction: In the course of taking a life inventory or sampling within a given area, biologists invariably find themselves running into the same species over and over again, the number of new finds steadily declining. There are probably over a hundred articles on the subject of rarefaction in the literature of theoretical biology, most of them guesses supported by a few examples. Most of the guesses, however, indicate a logarithmic function. In other words, with a sampling effort involving n forays into the field, new species turn up at a rate proportional to $\log(n)$, a *very* slowly growing function (as we well know).

IMAGES:



Flowers and leaves of Slender Bush Clover blooming on the River Bluffs along the trail. Apparently a favorite food of deer, the plant is widespread and common, although not abundant on site, perhaps because of the deer.



A dangling vine of River Grape sports a pair of bicycle handlebars at the end. Obvious use: a diving swing used by kids. My final theory was that the swing dated back to the youthful days of the Newport brothers, Jim, Harvey and Lorne, in descending order of age. Tragically, the last two of the just-mentioned both died early, Lorne being the owner of the farm that would become Newport Forest. Half of his property had always been forested, the remainder being pasture for a beef herd.