

## Site Visit No. 807

Newport Forest Monday April 13 2009 1:50 - 6:00 pm

weather: prec. 0 mm; RH 58%; BP 29.3 KPa; N  $\leq$  20 kmh; ovcst; T 9° C

purpose: to plant trees, sample nematodes

participants: Kee, Pablo Jaramillo, Donald Craig

Don was already on site when we arrived, so we proceeded down to the trailer and inspected what Don had brought us in the way of trees from his home nursery. (See lists below) We decided to take the two Pawpaws (PP) to the Sand Bar (SB), along with two White Elms (WE) and a Black Maple (BM).

I found some Bloodroot flowers half opened at the edge of the SB, but forgot to photograph them. Don planted the PPs rather far apart since, if they took, each would eventually produce a clonal stand (as with Beeches, for example). The pawpaws I planted there a few years ago have been growing well and (somehow) avoided being crushed by ice blocks (What a violent place this is!) Don then walked downstream to examine the immense Blue Ash at the river's edge that I had told him about a while ago. He rejoined us in the Beech/maple division of the RSF in time to mention that we might just have the largest Blue Ash in Ontario and to point out two cankers: *Nectria* on a large Bitternut and *Eutypella* on a young maple. The *Eutypella* is specific (parasitica) to maples, but there are many species of *Nectria*, the most common being *E. galligena* in our context. Both are ascomycetes.

Don then returned to the RZ (Regeneration Zone) to begin planting his trees, while I took Pablo along the rest of the TRT over the HB and down into the BCF, where we paused to get another surface sample from a vernal pond. On the way out, we also planted about 3/4 of a bag of some 40+ Big Shellbark Hickory nuts that Don brought as a present to the forest. He said they like wet feet. (If they take, they take . . .)

Back at camp, I helped Don plant the rest of his trees at random locations in the western corner of the RZ, which needs more filling before the RZ project is complete. Don had some interesting remarks about the inhibiting effect of grasses & sedges on planted trees in old fields. They steal 99% of the nitrogen. This helps to explain why some of our trees are spinning their wheels. My idea about clearance disks was correct; I just didn't take it far enough. We'll cut wider disks later in the season and mulch everything.

Trees planted in RZ: 5 Bitternut; 8 White Elm; 3 Eastern Cottonwood; 4 Big Shellbark Hickory; 5 Hop Trees; 4 Blue Ash

Meanwhile Pablo selected five sampling sites at random in the RZ and took cores of the soil under grass roots, where the nematodes congregate. He anticipates sending us his species list in a few days, but warns that it's still early in the season and that better samples will be available later in May, when the soil has warmed significantly.

(Back at the lab, Pablo separated out the nematodes from the soil and identified some five of them, three reported here. He remarked that he had never run into predatory nematodes in his sampling at the UWO tree station, so he was pleased with his finds.)

birds: (11)

American Crow (HL); American Goldfinch (LM); American Robin (UM); Black-capped Chickadee (Tr); Chipping Sparrow (BCF/LM); Hairy Woodpecker (GF); Northern Cardinal (LM); Red-bellied Woodpecker (Tr); Turkey Vulture (UM); White-breasted Nuthatch (Tr); Wild Turkey (EW)

new species

*Nectria* Canker *Nectria* [galligena] DC RSF Ap13/09

*Eutypella* Canker *Eutypella* parasitica DC RSF/HB Ap13/09

Annulated nematode *Circonema* sp. LM PJ Ap13/09

Predatory nematode *Helicitylenchu* sp. LM PJ Ap13/09

Predatory nematode *Monochus* sp. LM PJ Ap13/09

### IMAGES:

(click on image to enlarge)



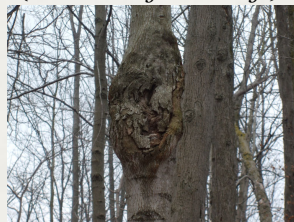
predatory *Circonema* has large stylet inside mouth (lower right) for impaling prey. Annulated cuticles are not a common feature of nematodes

(click on image to enlarge)



Pablo collects nematodes with coring tool in LM

(click on image to enlarge)



*Nectria* canker on a Bitternut tree

(click on image to enlarge)



Don Craig plants trees at the Sand Bar