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Citizen Science & Monitoring Nature

Date and time: Sunday October 29 2017 1:15 - 4:30 pm
Weather: Pr 33 mm; RH 83%; BP 100.4 kPa; cloud/sun; N 05-00 kmh; T 09º C
Contents: Cleaning up walnuts and foraging for fungi

Steve Logan holds a partially filled bag.

For today's visit I teamed up with Steve Logan to combine maintenance with a search for fungi. Thanks to the recent generous rain there were plenty of the latter, including mushrooms, brackets, and even cups of sac fungi. But first the walnuts.

As mentioned in the last issue, walnuts seem to be having a bumper year. The trails have been turned into something of a hazard, with feet rolling out from under one at almost every step. Call it a safety measure, although I have developed a certain antipathy for walnut trees owing to their poisoning effect on the young trees in the Regeneration Zone (RZ) where we have many young trees planted, some already adversely affected.

In any case Pat and I had planned the RZ with an ultimate mature forest in mind and the Black Walnut is not generally found in such forests. The reason is simple; baby walnuts are shade intolerant and after the first generation, die in a developing forest. On the other hand, the Black Walnut is a magnificent tree of open spaces, along roads, field edges, stream banks and so on. Newport Forest already has a full complement of such trees and hardly needs more.

To ease the trouble of constantly bending over, I used a handy reacher/grabber that made it easy to pick walnuts from the ground

and pop them into a garbage bag. The two of us filled two garbage bags before we wondered what to do with them. “You can eat them, you know,” said Steve. “What, this kind?” Steve pointed out that it was much like the ones at the supermarket. He told how he and wife Karen had collected bags full in the past, then spread them out on the driveway, running them over, back and forth, with the truck, until they were all nicely hulled. They stored them in the basement to eat in the winter.

The next operation involved a search for new fungi sprouting. I did not expect to find a new species, as we are getting close to a full list in this respect — unlike the situation with arthropods. But it is nevertheless interesting to find out which species are endemic on site. Starting in the Nook, we spotted a giant Puffball (*Calvatia gigantea*) sprouting on the upper slope of the creek bluffs. We walked to the river and back, finding an aging Elm Oyster at the base of an elm, a large white mushroom that I couldn’t place, and a troop of Inky Caps that, according to Steve, may have been scratched at by Wild Turkeys. There were turkey scratches all around us there. It was then that Steve spotted some wonderfully decorated brackets of the Late Fall Polypore (*Ischnoderma resinosum*). These fungi exude amber-coloured droplets of water, as readers may see in the Image Gallery below. Just before we emerged from the Blind Creek Forest and into the Lower Meadow, we came upon a log that sprouted several orange-brown caps with orange rings on the stem. Aha! Deadly Galerina (*Galerina autumnalis*), a deadly poisonous mushroom. I explained to Steve the difference between the outcome of eating one of these mushrooms and eating one that was merely “poisonous”. Death. Whereas a “poisonous” mushroom might give you nothing worse than prolonged stomach pains, a deadly poisonous one often results in a deceased amateur. I entertained Steve (or so I thought) with the symptomology of the deadliest of North American mushrooms, *Amanita vilosa*, the Destroyoing Angel. The name itself gives me the creeps. If you eat the better part of one of these, you may get severe cramps in due course. And then you feel better, thinking you have recovered. Then your liver turns to liquid and it’s game over!

Our final little find was a row of Lemon Drops along the top of a log. They resemble tiny yellow buttons at first, then turn into charming miniature cups. They do not belong to the same class as the other fungi we saw today — all basidiomycetes. These were ascomycetes, reproducing through spores that are arranged in microscopic club-like structures called asci (sing. ascus).

The afternoon was drawing to a close, the sun had gone behind an overcast and the air began to chill. What to do with the walnuts? I took my bag home to see whether Pat might approve of a winter project. I’m not sure what Steve did with his.

Closing the ATBI: Today marked an informal end to the search for new species of arthropods for another calendar year. One or two new species may emerge, but only by accident. Over all of 2016, we found some 98 new species. Up to the present moment in 2017, we have found only 84 new species. Although there may have been some insect decline going on locally, we put somewhat more effort into the project this year than we did last year. The resulting difference is probably attributable, at least in part, to the phenomenon of rarefaction: the more species you find, the fewer are left to find. Unfortunately, the rarefaction is not linear.

Readers Write

Naturalist Clare Magee writes: "Great job on the latest "bulletin". Love your mushroom tasting protocol. Really appreciate your dedication to the project."

Image Gallery

Seeds of the Virgin's Bower vine might also be used as the basis for a new fabric, like the milkweed seeds mentioned in the previous issue.

This Giant Puffball may not have reached its full growth, being a mere six inches in diameter. Some specimens of this fungus can reach more than two feet in diameter. Sliced like bread, this puffball may be fried to a light golden brown in butter to make a delectable treat.

Newport Forest's loss is the fungal world's gain. An elm that died several years ago, now plays host to the Late Fall Polypore. The second part of the scientific name *resinosum* refers to the pale brown droplets of water that ooze from both the caps and the pore surfaces below. These brackets illustrate the sometimes unruly undulating form of the bracket, resembling folded cups, as if to catch and hold the precious "resin". Is that liquid good for anything? I'm guessing not.

Unlike the Giant Puffball, this fungus is not a “treat”, being classed as “deadly poisonous”. Look for the dark-brown, orange-flushed cap and a scurfy stalk with an orangey ring near the top. The crease in the cap on the right is not a normal feature of the mushroom. but was made by a stick or plant stalk resting against the cap while it was growing.