Monitoring Nature

Date and time: Saturday January 11 2015 1:55 - 3:55 pm
Weather: Pr 41 mm; RH 87%; BP 101.3 kPa; sun/cloud; calm; T 9ºC
Activity: Visiting the river & sampling the creek

The property was very "squidgy" today, thanks to the melted snow and thawing clay soil. In the van's rear view mirror, I could see the telltale black tread marks left by our all-terrain tires. At the bottom of the Lower Meadow, we decided to turn the van around immediately and position it for a getaway. A dicey three-point turn, spraying mud in all directions, left the van all bespattered but ready to go.

Once we settled in, Pat searched the snowless ground for signs while I went to the river. Pat found some deer tracks and two scat deposits, one from a Coyote the other from a Wild Turkey. I went to the river where I was confronted by the unusual sight of cattle in the woods on the far bank. Aberdeen Angus, at a guess.

Three Angus steers in centre, one at far left.

Too bad, I mused. If they had been on my side of the river, I could add a new species to the ATBI list: *Bos taurus*! Two Bald Eagles wheeled overhead, far above the sluggish green current. Shore ice had formed and the beach was mostly submerged. Move along, folks. Nothing to see here.

On the way back I changed the sd card on Trail Can #1, little suspecting the menagerie of animal life it would later reveal on the computer screen. (See below.) Had I been more alert I might have inspected a few logs along the trail in the hope of

finding some sluggish arthropods. That might have been my last chance for a new centipede, but I was fixated on my next venue, the creek.

“Are you sure you want to go down there?” I replied that the creek looked shallow enough. Down I went, pickle jar in one hand, walking pole in the other. There was shore ice to tread gingerly over, then into the icy water in my size 12 rubber boots, coming to within an inch of the tops before I got to the shallow part of the rapids with their partially exposed rocks. While Pat watched anxiously from high up on the bluffs, I searched for a rock that still had some algae on it. I filled the pickle jar with about 3” of water, finally spotted a suitable rock and placed it in the jar. Back I went, wondering what micro-animals and ciliates might be lurking in the algal mini-forest that grew on the rock I had selected.

Halfway up the bluffs trail, I paused to rest by an Ironwood tree, noting that its bark would be perfect for our ever-growing photo-gallery of Newport Forest biota. So I took a picture.

Coffee in the trailer is always nice on a winter’s day. “No weasel scat?” I asked. Pat pointed grimly behind her to the cover of a field guide. Then came a rustling noise behind the wall and we knew that Wendy was back. “There are no mice in the trailer, I’m sure,” said Pat.

This was to have been a short visit. If there had been even a cm of snow, we might have done some tracking, but that will have to wait for another week or two.

Birds (20): The Christmas Bird Count results from Newport Forest.
American Crow (5); American Goldfinch (5); American Robin (1); American Tree Sparrow (1); Black-capped Chickadee (4); Blue Jay (4); Brown Creeper (2); Canada Goose (9); Dark-eyed Junco (2); Downy Woodpecker (5); Eastern Bluebird (2); Eastern Screech Owl (1); Gold-crowned Kinglet (1); Northern Cardinal (1); Northern Flicker (1); Pileated Woodpecker (1); Red-tailed Hawk (2); Ring-billed Gull (14); Rock Pigeon (2); White-breasted Nuthatch (1).

This is not our list, but one sent to us by Mhairi MacFarlane who, along with Pete Chapman, took a census on the property as part of the Skunk’s Misery Christmas Bird Count on January 3rd. (Our own rather modest day-list follows below.)

Whenever one has counts from the survey of virtually any living organism within a site, the following shape usually emerges when the species are plotted against their respective abundances. The plot is called a species-abundance distribution and is

the most common representation used by population biologists. In the Chapman count above, for example, there are eight species of abundance 1, five species of abundance 2, and so on.

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 1    ********
 2    *****
 4    **
 5    ***
 9    *
14    *
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Birds (6):
American Crow (BCF); Bald Eagle (TR); Black-capped Chickadee (BCF); Blue Jay (FCF); Canada Goose (BCF); White-breasted Nuthatch (BCF).

Phenology: Last snow-free day of winter season?

New Species:

Angled Hypotrich	[*Amphisiella*] sp.	LR/FC KD Ja09/16

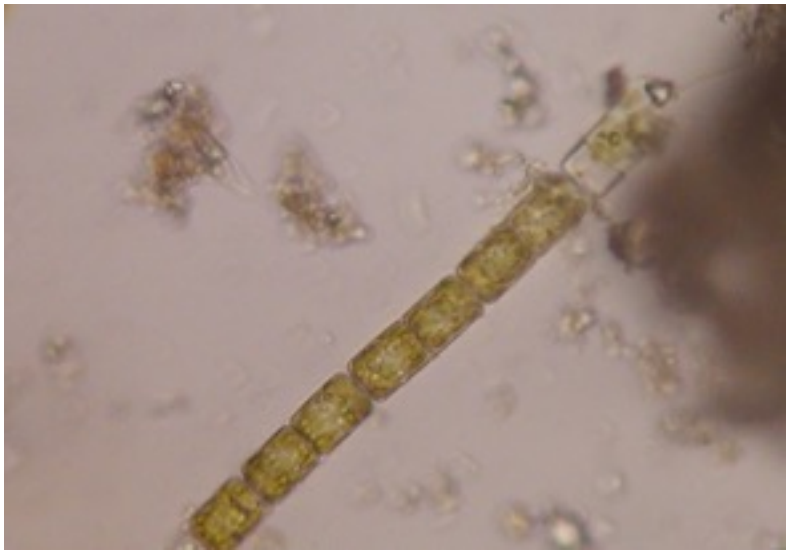
Species Notes: I am not satisfied that the organism named is actually a species of *Amphisiella*, but it happens to be closer to the members of this genus of hypotrich than any of the dozens of samples at the Hosei University site (Protist Server), as well as my reference works on ciliated protists. Among the diatoms I found about ten species, none of them new, as far as I could tell. We will publish a list of these, as well as other finds from the pickle jar in the next issue of *The Bulletin*.

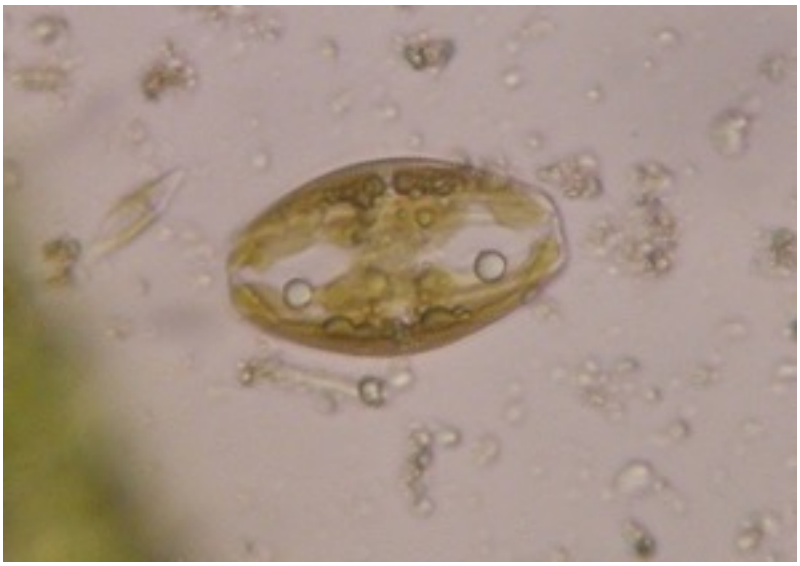
Passed away: We note with great sadness the loss of our friend, Joe Cummins, who died recently at age 82. Joe was a genetics professor at UWO and a fearless campaigner against all forms of pollution, not only the buried toxic waste at Pottersburg Creek, but acid rain, GM crops, you name it. Well done, Joe!

Catching up:

Readers who would like to read past issues of the *Bulletin* are welcome to visit the archive at <http://www.csd.uwo.ca/~akd/newport-forest/> Scroll to the bottom.

IMAGES:





The diatoms *Melosira varians* (above) and *Amphora ovalis* (below) were among the winter algae clinging to rock surfaces in the Lower Rapids. They represent the two basic morphologies of diatoms. The first diatom is “centric”, having radial symmetry and shaped like a gel-cap, with one half-valve snugging nicely into the other. The gel-caps are stuck end-to-end to make a filament. *Amphora* is a “pennate” diatom, having bilateral symmetry. Its valves also fit together, like a box and lid. For both classes of diatom, the valves are made of silica, a micro-glass structure that allows light to fall on the photosynthetic pigments that convert CO_2 into oxygen.

Wild Turkey displays alarm (at trail cam?) while others head into woods.

One Coyote scent-marks while his companion heads up the trail.

The list on the next page illustrates the bounty of imagery that can result in a well-placed trail camera. Some six species of animals were caught (seven if you count Pete Chapman) in the sd-card. The other camera was out of service over the period.

Trail Cam #1 activity:

2015	Dc24	9:40 pm	two Raccoons
	Dc26	4:12 pm	one Virginia Deer (doe)
	Dc26	4:17 pm	three Wild Turkeys
	Dc27	9:17 pm	one Virginia Deer (doe)
	Dc27	11:00 pm	one feral cat (“Blackie")
	Dc28	7:02 am	one feral cat (“Patches”)
	Dc29	12:18 am	two Virginia Deer (does)
	Dc29	9:39 pm	one Raccoon
	Dc30	2:18 am	one Eastern Cottontail
	Dc30	4:40 am	one Raccoon
	Dc30	8:56 am	two Virginia Deer (one buck, one doe)
	Dc30	10:15 am	two Virginia Deer (does)
	Dc30	1:15 pm	Pete Chapman checking property
	Dc31	4:36 pm	feral cat (”Blackie”)
2016	Ja01	11:49 am	six Wild Turkeys
	Ja02	9:10 am	one Coyote
	Ja03	9:29 am	Pete Chapman & Co. birding
	Ja05	9:56 am	two Virginia Deer (does)
	Ja06	1:36 am	one Coyote
	Ja06	9:24 pm	one Coyote
	Ja08	2:59 pm	four Wild Turkeys (one spreads wings)
	Ja09	1:03 pm	two Coyotes (one scent-marking) These two may have still been on the property when we arrived!