103The Newport Forest Bulletin
Citizen Science & Monitoring Nature

Date and time: Wednesday January 31 2018 2:05 - 3:35 pm. **Weather:** Pr 34 mm; RH 76%; BP 104.0 kPa; overcast; winds calm; T - 02°C **Contents:** Midwinter visit — deluxe edition.

Fb13/18



Everyone but me — at the gate: Will Cable (today's assistant), Steve Logan, Darren Jacobs, Bruce Stonefish and nephew Eli, Thames Talbot sign in the background.

Without our friends from Moraviantown, Will and I would have arrived to face an impossible situation; the snow was well over a foot deep and overlain by a heavy crust. We would have had to walk in and I would probably not have gotten any farther than the first rise in the Upper Meadow before I would plead exhaustion and stumble back to the gate, mission denied.

But when we arrived, Steve was already out on the road waiting, while Darren's Jeep could be seen "plowing" along the track heading back to the gate after having driven all the way down to the trailer. The Jeep Rubicon swayed and threw up plumes of white, but rolled on up to the gate.

Darren agreed to ferry us in and, just as he was to set out with Will and me, a third party showed up. It was Bruce Stonefish, who had never been to Newport Forest. He brought with him his nephew Eli, just in from Michigan. Bruce's Ford 150 followed Darren in with little difficulty.

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On arrival I checked out the trailer, discovering to mixed dismay and delight that Wendy the Weasel was wintering over in the trailer for the third time and, for the second time, had given birth to a litter. Wendy's scat had been deposited on the breakfast couch and the babies had left a dozen scatlets right up on the breakfast table, perhaps as appetizers.

There was little to do on site and I warned everybody that it would be a brief visit. I had brought with me all three trail cams, having spent a whole evening adding new batteries, troubleshooting and resetting the time stamps. Steve and Will took Cam # 1 to the Hole, plunging through extra-deep snow to get there and mount the camera back on its tree. Remaining work on site involved measuring the snowpack in a few places to give me an average figure that could then be converted to liquid equivalent using the 1/10 formula. (See the "Pr" entry above.) In order to find out how many Raccoons have survived the winter (so far), we baited the Nook with kibble ands set up Cam #2 to record their comings and goings.

The remainder of the visit was largely social, the star of the show being Bruce's nephew Eli. Bruce had him count to 12 in the Delaware language and to give the Delaware translation of English words that Bruce would call out: "Raccoon" — "Aspoon"; Owl" — "Gokhoos"; "river" — "seepo", and so on. Eli then took the trail down to the creek, reporting some deer tracks on his return. Someone else mentioned seeing rabbit tracks, presumably where some snow had blown over the crust. Darren explained a new project involving a school for native culture. Students would learn not only their ancestral language, but learn traditional skills, from hunting to the use of medicinal plants. I thought this was a worthwhile project and so made a donation on behalf of both Pat and me.

Readers who would like to make a similar donation should get in touch with Darren at the following email address: <<u>jacobsdarren1@gmail.com</u>>

Presently, we were ferried up to the gate in Darren's Jeep where I had everyone pose for a group picture, as in the cover image above.

Birds: We saw a Northern Harrier flying over the Blaine property nearby, heard lots of crows, and saw a flock of 14 Wild Turkeys on the road coming in.

Phenology: snowpack 30 to 49 mm

Readers Write

Don Gordon, former Director of the Thames Talbot Land Trust writes from his home on Vancouver Island:: "Just wanted to let you know that I enjoy these bulletins. It's nice to maintain a link to my old haunts and the important conservation work we engaged in. Loving life on the Island and finding the work in climate advocacy to be rewarding."

Image Gallery



Bruce Stonefish and nephew Eli pose for a picture while Darren braves the cold in the Nook and assistant Will awaits further instructions.



A perfect snowflake reflects the hexagonal symmetry common to nearly all species of snow. Even within a species, individual shapes and patterns may vary. The exact architecture is the unique product of many factors, playing out as the growing crystal swirls within its parent cloud: temperature, humidity, and air pressure are the main influences and, because these may vary within the cloud and along the trajectory of an individual flake, the pattern varies. It is said that no two snowflakes are identical. If this is so, it can be estimated that Newport Forest had some 230,000,000,000,000 individual flakes on the day. "Would that be 230 quadrillion?" "You figure it out. You're the mathematician!"

The major "genera" of snowflakes, from the common form above to doublecapped columns, hexagonal tubes and other shapes, will be found at the following website:

<https://themeaningofwater.com/2015/12/10/the-snowflake-natures-messenger-of-beauty/>

The question remains: why six-pointed, why a hexagon? For science fans, a partial answer will be found below:

Here is a ball-and-stick model of a water molecule. The angle made by adjacent hydrogen (H) atoms with the central oxygen (O) atom is 104.5°, not a promising start. But watch this: When four such molecules come together, as in the second image, the attraction of the hydrogen bonds (due to shared hydrogens) is strong enough to flex the angle just mentioned into a 120^a yawn. The resulting tension lends strength to the structure, rather like the strings that tie the cross-sticks of a kite together. We're almost done; next, when a second four-water molecule is stacked on the first, like charges on the outer oxygen atoms repel each other. The furthest apart they can get is 60°.



Google "Quora/snowflakes" for more information.