Field Notes – THIRD WEEK OF FEBRUARY
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WHO GOES THERE?

In February 2020, we had no days with snow cover (that was dreary!). This month, we've had no days without. George and I like to maintain our summer walking paths around the house and into the back woods. Some paths we shovel, some we just stamp down after each snowfall. We report our every excursion in the snow-ledger. Who else is writing notes? Who's reading them?

White birch with bird feeders – the beginning of a network of paths

I'm amused to see that the wildlife in our yard also use these trails:

Finches hopping along our paths near the birdfeeders

I like the rhythm of the finch's 2-footed hop – both feet landing simultaneously, side by side. The crows walk with a slightly hunched, posture, a hitched gait.

A crow walking in our footsteps **Crow wing prints**

Of course, the birds don't need our trails – they're light enough to walk on top of the snow – but the trails bring them closer to food sources on the ground.

Hopping squirrels use our paths, too. The larger prints at the front of the four-foot track are made by the hind feet, which land ahead of the spot where the front feet landed.

Gray Squirrel tracks

The squirrels make a beeline toward our sunflower feeders.

Squirrel bounds in deep snow

Mice are also hoppers. Here's the track of a field mouse that followed our footsteps until it was close to the shed, then scampered over the snow and dived underneath:

Mouse tracks in snow

In this soft snow, the front-foot and back-foot landings are so close to each other, they spread into a single print.

Tracks of mice near the bird feeders

Looks like the mice had a dance party under the feeders last night.

A Red Fox walking in our footsteps

I am happy to see that the red fox is still living nearby. I've caught glimpses of her streaking through the yard in the past few years – in the spring, she has to hunt even during the daytime for her hungry pups. She helps keep the mouse and vole populations down. (You can tell this is a fox print, not a dog print, by the fact that the "outer" toes are completely behind the "inner" toes. A dog's toes are more closely aligned in a semicircle.) Her footprint fits neatly into the toe of George's boot print.

Speaking of rodents -- she’s found one under the snow, and pounced!

Pounce mark of fox who’s discovered a mouse or vole under the snow

Now who is this, making a circle and pouncing in the middle?

Mystery animal in woods behind the house, February 13

The fact that there's only one set of tracks tells me that the object of interest in the center of the circle was most likely a little rodent in the subnivean zone. This track in the softening snow tells me something about the animal's behavior, but nothing about the shape of the feet. The only thing it tells me about the animal's gait is that the feet are moving in parallel – not pigeon-toed or splay-footed – and that the body is low-slung. I consult all my references, and do a little research online.

More tracks of the mystery animal

This is a creature that likes to do circles – these tracks remind me of the children's game of fox and geese. It's a smallish animal that moves easily among shrubs and gets right up close to tree trunks. Maybe it climbs trees? It seems to act like a squirrel, in that way, but its prints are much larger than a squirrel's.

Finally, I find an imprint of a foot. It's mushy, so I can't make out any details apart from the fact that its toes are spread wide.

Mystery animal's footprint

I check out the pattern of movement in that track – yes, it's heading directly for a tree trunk.

Mystery animal heading toward a tree – and likely up the tree.

Aha! Some scat in the trail:

Scat – likely that of Mystery Animal

Putting together all of the clues, I think it might be a fisher. I've never seen one, but I know they're seen in Andover. I consult all my references and do a little online research. Fishers are solitary hunters that prowl large territories –as much as five square miles -- searching for prey: showshoe hares and porcupines, birds, and small mammals. In our woods, I've seen no evidence yet of hares or porcupines, so I think the tussle in the center of the circle above was probably with a mouse or a vole. I look the next day for more signs of mystery this animal, but there are none.

On Valentine's Day, the afternoon temperature rose above freezing for the first time in over a week. The snow was still deep, but a little melty, with a texture my mother used to call "sugar snow." I take a walk on the Percy Cook Trail and notice a lot of little black specks clustered in around the deer hoofprints next to the walking trail.

Snow fleas!

“Snow fleas” springing out of a deer hoofprint, February 14, Percy Cook Trail

The snow fleas have surfaced from the leaf litter, which they’ve been breaking down, bite by infinitesimal bite, all winter. They’ve leaped their way upward through the deepest depressions in the snow – the heavy hoofprints of a deer – evidently lured by the warmer air temperatures. Snow fleas are creatures in a class of their own: not insects or arthropods, but springtails. They have six legs, no wings. I have read that they are the most abundant animals on earth that are visible to the naked eye – over 100,000 individuals per square meter of soil.[1] They’re absolutely critical to the cycling of organic matter on the earth’s surface, but we tend to notice them only when they sprinkle the blank page of the snow like ground pepper. And when we look more closely, the pepper granules jump!

[1] Sedeer el-Showk (2015) , “Of Moss and Microarthropods.” https://www.nature.com/scitable/blog/accumulating-glitches/of_moss_and_microarthropods/

Like almost everybody else out on a winter's day, the snow fleas must be looking for food. It's not clear to me what could be more nutritious on the surface of the snow than what they have underneath it, but there is some microscopic detritus in even the whitest of snow: there are bits of decaying algae, fungi, and bacteria on the surface of the pristine-looking snow that they can perceive and I can't. I understand that they eat things as small as fungal spores.[2]

I take a closer look:

"Snow fleas" – springtails on the surface of the snow, February 14

I recognize these guys from samples of moss that I've brought indoors to look at under the stereoscope. I'm always startled when I'm looking at a moss leaf to see if it has a toothed edge and suddenly a springtail jumps toward the lens.

The woods are lovely this mild afternoon – I want to stay out longer, so I head down toward the Hop River. On impulse, I stop in the parking lot of the Andover Congregational Church. Occasionally, I see interesting flowers and critters in the graveyard, which is just uphill from the River.

Ah yes, I see a track meandering among the stones:

[2] Timothy Gibb (2020), "Snow Fleas: Winter Insect Insanity." https://ag.purdue.edu/stories/podcast/snow-fleas-winter-insect-insanity/

A new mystery track

I like the braided quality of this track, with the undulating lines weaving between the footprints. That's a dragging tail, for sure. The tracks look freshly inscribed. I follow them among the stones and suddenly I come face-to-face with the track-maker as it surmounts the top of the bank from the river!

Close encounter with track-maker

Opossum, February 14, near the Hop River

This animal was methodically shuffling along, lapping the snow with its little pink tongue, like a child slurping a snow cone. What was it getting? I read that opossums are omnivores, and that insects and arthropods are part of their regular diet (they eat ticks by the thousands). Perhaps this one was finding snow fleas that hadn't quite made it to the surface of the snow yet, and other detritus and creatures too small for me to see.

Loping, hopping, bounding, walking, trotting, shuffling, waddling – animals are all around us, looking for food or mates. We see only a few of the many that inscribe their travels in the snow. As for me, when I step off the paths and sink my boots in deep snow, following a mysterious track, I feel a momentary twinge of guilt for disturbing the blank page in order to spy on the lives of others – but as soon as I am able to identify a track and read a story in the snow, I feel that my little world has grown much larger.