



Heartbeat of the Forest

by Kathleen Proeve

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A friend recently sent me a note. The words below are all he said; they were all he needed to say. They brought me close to the window, inspiring me to take a walk through my

The first geese passed on 3/13. Could hear the first sharp-tails dancing on 3/15 and the first meadowlark showed up on 3/17. Found the first Pasque flowers in bloom and the first cranes passed on 4/4. Spring although cold was happening, until a 3-day blizzard arrived on 4/12 leaving 16"-20" of wet, wet snow and 3" more on 4/17. Life on the northern plains is all about patience and humility. You remain in my heart and knowing you are there helps keep me here.



Okay, so that last line was personal. But aren't all heartbeats intimate? Pulsing? Especially those that occur with constancy and reliability?

We study some 'big things' here at Dovetail. Take a read of some of our report headlines: "Biochar in Stormwater Management," "Biomass Energy," "A Climate, Conservation, & Livelihoods Challenge," "Organics Recycling," "A Review of Life Cycle Assessment Tools". And there is so much more.

What you may not 'hear' or 'read' in all these reports is that they began with a certain pulse. . . an author's interest in . . . or connection to . . . or realization of. . . And pretty soon some words were written down and some dots were connected and then a question mark showed up and the author looked to the sky or the earth for more answers.

I suspect that most of us reading those Dovetail reports are naturalists. We consider ourselves as interested in, and close to the environment and its myriad of relationships, and how those relationships connect with one another.



Aldo Leopold sitting in front of the shack. 1940. Photo courtesy of the Aldo Leopold Foundation and University of Wisconsin-Madison Archives

And then there are some who take the next step: they become phenologists. The difference between a naturalist and a phenologist is very small: the two are just a keystroke or a pencil mark apart. A naturalist is an expert or a student of natural history; a phenologist writes down their observations, typically throughout the span of the seasons and their own lifetimes.

On the books, a phenologist is defined as the "one who studies the rhythmic nature of biological events as they relate to climate and season." This might mean noting the date of the changing of the color of leaves, the return of Canada geese to the north, and the first flowering of the maple trees.

It might include noting when the 'fee-bee' song of a courting black-capped chickadee is first heard on a cold February day, or when the chorus of frogs speak in rhythm to one another in the lowlands behind your home.

It might be when fireflies trace lines of light in the night of a July sky, and when the loons first return to northern lakes in the spring, or begin their molt in late autumn.

Aldo Leopold is a name familiar to many. This famous phenologist kept records of the animal and plant life on his farm in Wisconsin; he began doing so in the 1930s. His notes are being looked at even today, revealing trends in such natural happenings as bird migrations and changes in weather patterns.

John Latimer is a 21st century phenologist, whose name is familiar to many of us in the northern counties of Minnesota. He carried the mail in rural Minnesota for over 35 years. While traveling his 100-mile route, John recorded his observations, noting signs of changing seasons and in the plant life he saw blooming and flowering in the ditches and the forests along his route. He wrote those sightings down and compiled, over the years, a phenology record.



John Latimer. Photo courtesy of the Minnesota Phenology Network.

John began to share his observations on Northern Community Radio KAXE/KBXE. With the combined talents and interest of Rebecca Montgomery from the University of Minnesota, the Minnesota Phenology Network (<https://mnpn.usanpn.org/home>) was born in 2010.

Backyard naturalists and resource professionals alike share their observations and records so that all would have access to this significant data.

In recent years, John's vision to create a statewide network of reports has embraced the voices of school children. John visits classrooms and prompts students to tell him what they are noticing outside. He lets them know they are already phenologists because they are curious! He hands them a journal, suggests they write their observations down, and young phenologists are born.

Take a 'listen' to a few recent weekly observations as aired early on Tuesday mornings on KAXE/KBXE:

Ava and Isabel bring us this week's report from the Science Nature Adventure Program at Bemidji Middle School. "This week, they spotted Canada geese and a bald eagle during their phenology walk. They also noticed more open water where the geese and ducks can congregate to dabble beneath the water's surface. More birds are singing, but their tracked phenology trees haven't changed much yet. During the week, individual students spotted a red-winged blackbird, two turkeys, six deer, a rabbit, a black bear, loons, a bald eagle, three hawks, robins, starlings, and chipmunks. They've also been watching a local osprey nest but haven't seen them yet; however, they did get to see a Canada goose basking in the sun in its nest and happily gazing over the school grounds. "Until next time, snap to it! Get into the wild and be observant."

Jane brings us this week's report from North Shore Community School near Duluth. "On Wednesday of last week, the students woke up to yet more snow blanketing the ground; however, they noticed that the sun was getting more powerful and hoped that the trees would begin to leaf out soon. The Knife River is rising due to the melting snow and increased rainfall. The grass is turning a darker shade of green; apparently, the deer are enjoying snacking on the new growth, as they've been spotted grazing in the area! One deer was alarmingly skinny, with visible ribs showing through the hide. In addition to seeing the deer in front of them, students observed scrapes and tracks the deer left behind. Collectively, they've seen many birds, including many species of ducks (e.g.: northern shovelers, buffleheads, ring-necked




ducks, blue-winged teals, mergansers, and mallards. Some were seen for the first time this season!), sandhill cranes, a large flock of juncos, and a northern flicker! Many other critters were out and about, with sightings of a black bear, a skunk, 12 flies, large groups of Asian beetles, and a small black ant. The class noted that April 29th was Arbor Day, a holiday celebrating the importance of trees!"

Sam, from Highland Catholic School in St. Paul, brings us this week's report from Long Lake Conservation Camp! "We got to see a lot of beavers during our field trip; one beaver swam right up to shore during class and sat there "paying no attention at all" to the students. Another beaver strolled through campus carrying a stick, also not seeming to care that there were students just a few feet away. It was a great week in nature, and they want to remind everyone to "live connected!"

Zephyryn and Malcolm bring us the news from Prairie Creek Community School, "way down south' in Northfield! As always, they're the first to see spring arrive. This week, they report seeing 'crazy amounts of rabbits,' one lonely junco (they think the rest have headed north!), and flocks of starlings, sparrows, and cedar waxwings. There are turkeys in the field, mallards in town, and a sharp-shinned hawk flying through the sky! The plants are busy, too; the buds are breaking on the honeysuckle, lilac, gooseberry, and raspberry bushes. They also report flowers from the dandelion, bloodroot, scilla, creeping charlie, and spring beauties. Finally, their magnolia tree is magnificent with its fresh spring flowers-how beautiful! "One more step along the phenology journey!"

Teachers pass the journals on to student phenologists from year to year, thus noting the constancy of nature and the calendar of natural events.



Cadence, rhythm, beat, tempo, pulsing, drumming. These are all heartbeats along the phenology journey. The finest part of the journey is that, in the process of looking and discovering, you will notice what is recorded in your heart, such cadences as:

- how autumn's leaves don't fall - they fly.
- how turkeys and deer, if you act like a predator, will act like prey and run. (Don't look at them.)
- how grass and some trees wear the shape of the wind.
- how walking in the woods after a heavy downpour is like walking on wet towels
- how, in the Spring, the earth smells more like a beginning than an end
- how crows can't keep a secret: if they see something curious in the forest, they tell everyone

Have you ever seen a dozen baby wild turkeys try to tuck themselves under their mother's wing?

And then there's the language of love of fireflies! Male fireflies light up to signal their desire for mate. Willing females attract the males with flashes of their own. Each firefly species has its own pattern of flickering to attract on of its own. (Some females will even imitate the patters of other species. Males land next to them, only to be eaten alive!) A unique and sometimes deadly language of love!

If I told you that the plants you walk by everyday have stories to share about changing temperatures and climate, and you believe that you can give a voice to plants, you will be living a life inspired by more than just your own heartbeat.



PRAYER

By Mary Oliver

It doesn't have to be
the blue iris, it could be
weeds in a vacant lot, or a few
small stones; just
pay attention, then patch
a few words together and don't try
to make them elaborate, this isn't
a contest but the doorway
into thanks, and a silence in which
another voice may speak.