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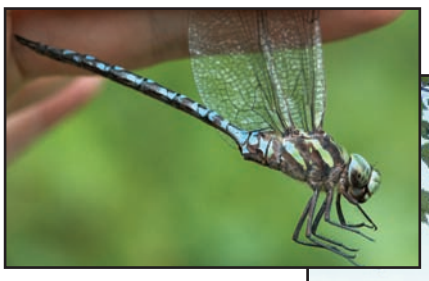
LIVING

Nature notes from Big Gull

Two weeks at a Kaladar area cottage leave impression of dry but bountiful summer

From late July through early August, my wife and I had the pleasure of spending some time at my brother's cottage on Big Gull Lake, located northeast of Kaladar and just south of Bon Echo Provincial Park. I always enjoy my time there and like nothing more than heading out to try to find new species to add to my list of the area's biodiversity.

Drew Monkman
OUR CHANGING SEASONS



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Sightings following a dry summer at Gull Lake included swarms of dragonflies (inset, Canada Darner) and, counter-clockwise from above left, a painted lichen moth, dry leaves that have fallen early and a particularly bold yellow-bellied sapsucker.

THE DROUGHT

Upon our arrival at Big Gull, we were taken aback by the extent of the drought conditions. Eastern Ontario has suffered a much more serious drought this summer than has the Kawarthas, and the impact was apparent almost everywhere you looked. The leaves of the vast majority of trees, shrubs and herbaceous plants along the roadsides were either wilted and curled up or had already been shed and fallen to the ground. The ferns, blueberries, dogwoods, cherries, red maples, birches and aspens were particularly hard hit. Many of the aspens were dropping their sickly grey-brown leaves, making some sections of road look like mid-October. The leaves on the blueberries had turned a rust brown, especially in areas where the soil was thin. What struck me as much as anything, however, was the near-total lack of any blossoms on the roadside plants. Even drought-resistant species like goldenrod and tall sweet clover were devoid of flowers. This probably explained the absence of butterflies, as well. With no flowers there is no nectar.

Some plants did seem to be faring relatively well, however. Among these were the oaks, pines and milkweeds. I was pleased to see that several milkweeds were even hosting monarch butterfly caterpillars. As for the oaks, they are better adapted than most trees to withstanding drought, thanks primarily to their deep-penetrating root systems and thick, leathery leaves. Although most of the pines I saw looked healthy, many had shed a lot of their needles, which had accumulated in piles below the trees.

There was a big sigh of relief for many cottagers when, later in the week, a couple of days of steady rain finally came. For me, it was amazing to see the resilience of some of the plants. Dogwood leaves, previously curled up and hanging limply, regained their normal shape in less than 24 hours. Most of the asters, too, which had been lying prostrate, were once again upright. The rain brought other changes, as well. Where only the day before the air was almost devoid of any smell, suddenly the distinctive odour of petrichor was everywhere. This is a smell that everyone knows but almost no one can put a name to. I only learned about it a couple of years ago. Petrichor is the scent of rain on dry earth. The smell comes partly from an oil given off by certain plants during dry periods and absorbed by the soil. When it rains the oil is released into the air, along with a compound known as geosmin, a metabolic by-product of soil bacteria. The latter is the same compound that produces the rich, earthy smell of the thawing ground in early spring. The damp cool and cloudy weather also inspired some forest birds to start singing once again, albeit rather tentatively given the late date and conclusion of the nesting season. The avian voices I heard were mostly hermit thrushes, red-eyed vireos and a few wood-pewees.

PISHING AT BON ECHO

A couple of days before the rain came, I decided to walk a couple of the trails at nearby Bon Echo Provincial Park. The effects of the drought were especially noticeable in the more thin-soiled and open areas of some of the trails such as High Pines. Birdsong was almost completely absent, even at the relatively early hour of 9 a.m. The only sounds I could hear were the buzzing of the omnipresent cicadas and the contact calls of a family group of chickadees. Although I didn't expect to attract much other than the chickadees, I decided to do some pishing – if only to break the monotony.

Pishing involves taking a deep breath and quickly repeating the sound "pssh" as you let the air out in one, drawn-out exhale. Well, the results were astounding. Materializing out of nowhere, birds started filling the branches of the surrounding oaks and pines. The first to arrive were a pair of ever-curious red-eyed vireos. Next to fly in was a particularly bold yellow-bellied sapsucker that came within five feet of me. An immature bird, it was clearly entranced by the high-pitched noises I was making and looked like it was trying to make sense of the all the commotion. Not quite as daring in their approach but still easily identifiable without the use of binoculars were two downy woodpeckers, three chipping sparrows, a half dozen black-capped chickadees, several pine warblers, a pair of nuthatches, a northern flicker, an ovenbird, a black-and-white warbler, and a gorgeous blue-headed vireo. In all, I was surrounded by at least 20 birds, almost none of which had betrayed their presence up until this point.

It is thought that the effectiveness of pishing in attracting birds is due to the similarity of the "pish" sound to the scold calls of chickadees. Scold calls are a part of the chickadee's mobbing behaviour and are used when the chickadees co-operatively attack or harass a predator such as a roosting owl. They do this to protect their offspring from being attacked. The scold calls may also serve to summon other chickadees to participate in the mobbing and hopefully convince the predator to move on. This process of summoning new chickadee recruits also attracts other birds that come in to investigate the nature of the potential threat. Vireos and nuthatches are usually among the first to respond.

DRAGONFLIES AND FLYING ANTS

One late afternoon when we came down to the dock we were greeted by a very active swarm of at least 100 Canada darner dragonflies. Only minutes earlier there had been none at all. In fact, I had seen almost no dragonflies around the cottage or around the local wetlands all week. Why would so many dragonflies suddenly appeared out of nowhere? The answer was not long in coming. I suddenly noticed that several flat stones adjacent to the dock were covered with winged ants. Many had already taken off and were flying above the dock and nearby water in a mating swarm.

I guess you could say that we were witnessing the essence of high-risk sex. The ravenous dragonflies put all their flying prowess on display as they snatched the otherwise-preoccupied ants out of the air – literally right in front of our eyes. The dragonflies twisted, darted, hovered and even stopped in mid-air, only to change direction before speeding off to pursue another morsel of food. On several occasions, I could even feel the puff of air displaced by their rapidly vibrating wings. They paid absolutely no attention to the four of us standing mesmerized on the dock. None of the dragonflies appeared to land at any time and were obviously eating their prey on the wing before going back for more. Some were catching the ants almost at ground level, probably only seconds into their maiden flight from the underground colony.

I took a fishing net and easily captured one of the dragonflies which, upon close inspection in the hand, was far more beautifully marked than you could tell from just seeing them in flight. What really caught our attention were the sky blue stripes on the top and sides of the brown thorax and, of course, the two gigantic eyes. Dragonflies have the largest eyes of any insect. They are composed of nearly 30,000 lenses and allow for sight in all directions except to the rear. With eyes like these it is no surprise that dragonflies have no need for hearing! What intrigued me most, however, was how the dragonflies knew that this relatively small colony of ants was swarming. Were they able to detect them by smell? In other words, how did so many dragonflies suddenly converge on one small area, seemingly out of nowhere? At this point, I don't have any answers to these questions.

MOTHING

I also took advantage of several evenings at the cottage to try my hand at mothing. I took an old white bed sheet and hung it from the cottage wall. In front, I placed a desk lamp with a 30-watt CFL light bulb and pointed the beam towards the sheet. The response from the mysterious world of nocturnal insects was quite impressive. Hundreds of tiny midges were the first to land on the sheet, obviously transfixed by the bright light. Soon, however, different species of moths began to arrive, along with harvestmen (daddy longlegs), lime-green bush-katydids (long-horned grasshoppers), beetles and craneflies.

Among the more impressive moths were a painted lichen moth, beautifully coloured in pastel tones of pink, yellow and grey, and a very large yellow-banded underwing moth. The latter was a study in cryptic greys, whites, browns and blacks when its wings were closed. However, when it opened its forewings to briefly fly to another section of the sheet, a spectacular band of bright orange suddenly appeared. It is thought that this flash of colour may serve to momentarily startle or confuses a predator and allow time for the moth to escape. Another possible explanation is that an attacking bird might grab the bright wing area – which would subsequently break off – instead of grabbing the moth's body which would result in death. Yes, even moths are far more fascinating than the casual observer could ever imagine.

Drew Monkman is a retired Peterborough teacher and author of Nature's Year: Changing Seasons in Central and Eastern Ontario. He can be reached at dmonkman1@cogeco.ca. Visit his website and see past columns at www.drewmonkman.com