

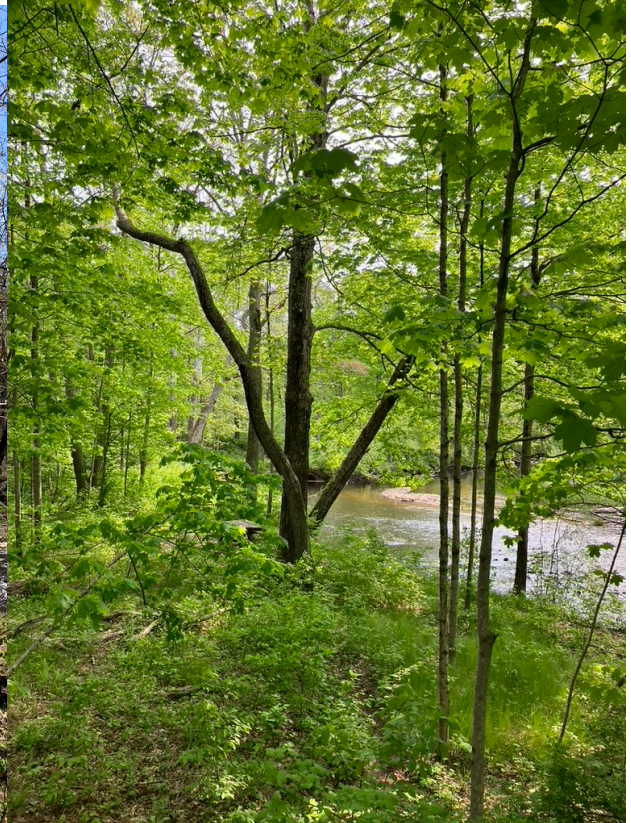
Field Notes – May 19, 2023
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LEAVES ALL IN

The world is glowing green again, from the ground to the tops of the trees. Sedges are up, meadow grasses are beginning to flower, fern fiddleheads are almost all unfurled, shrubs – even the slow-to-leaf buttonbush – are leafed out. Understory trees are green, and as of this week, the last of the hardwoods have broken bud, too. Here's the difference 24 days made along the Hop River:



April 21



May 15

Although it seems to happen all at once, the trees leaf out in roughly the same progression over a three-week span every spring. Some trees leaf out at the same time as their flowers, others before or after flowering, yet others at the same time as their fruits ripen.

Around Andover, the first hardwood I see leafing out is the sugar maple; the last is the black locust. Given the mildness of our past winter, I watched closely this year to see if the trees would leaf out earlier than the few previous dates I've recorded. I notice great variability among the trees of a given species – even in our yard, one sugar maple begins leafing out a couple of days earlier than another. But of course, I write down the *first* that I see.



Sugar maple, first leaves, April 19, 2023. Flowers expand before leaf buds burst.

Recent dates:
2014: May 11
2015: May 5
2019: April 25
2020: May 5
2022: May 10

Yup, they were early this year.

Once the maples have broken bud, there are new bud-breaks every day for about three weeks.



Tulip tree, April 20, 2023, Hebron Center Trail. Leaves precede flowers by about 6 weeks.

2021: first leaves May 5
2022: first leaves, May 6



American elm, April 25, 2023, breaking bud at the same time that fruits mature.

2019: April 20

2021: April 14

Hmm, I watch the same elm every year. It might have been a little late this year!



Shagbark hickory, April 25, not unfurled yet . . . in the same state as on May 4, 2018

I love seeing this moment of budburst in the hickories when the ruby-satin bud scales have just peeled back. It's easier to pinpoint than the moment when the compound leaves have fully unfurled.



Black oak, April 25, 2023. The leaves emerge at the same time as the flowers.



First white oak leaves, Lake Road, April 25, 2023



Red maple, May 9, Andover Lake. The leaves emerge as the fruits mature.

This year the crop of pink and orange and red samaras on the red maples was brilliant. In the second week of May, every female red maple along the highway could be identified from afar. I think it's fair to say that this is a mast year for red maples!



Shagbark hickory, May 10

Compound leaves can take a while to open. It took two weeks to go from first bud-break (as pictured above, April 25) to this unfurling.



Black birch, May 10, 2023

2014: May 12

2015: May 8

2017: May 6

2018: May 7

2019: May 7

2020: May 11

The black birch leaves break bud about the same time that the pollinated female catkins enlarge. This tree is in our yard, and I watch it closely every year. This year, thanks to an extended cool spell, perhaps, it was right “on time.”



American sycamore, May 12, 2023

2021: first leaves May 14



**Basswood leaves, already expanded and getting eaten
May 18, along Hop River**



**Pin oak leaves already expanded and getting eaten
May 18, 2023, Rail Trail**



Black walnut, May 15, Townsend Road

The black walnuts and black locusts are always the very last to leaf out, and they've begun to do so this week.¹ The black locust leaves overhead on May 18 look just the way they did on May 26, 2020.

Comparing this year with 2020, when I began writing these field notes, I must say that the leaf-out started almost two weeks earlier than it did that year and has finished a week earlier. Pollen-allergy season should be ending a little earlier for humans, too!

Bottom line: This year was an early one for the hardwoods. Here's hoping they have a good summer.

¹ Mature white ashes are also very late to leaf out. The only healthy ones I'm seeing this year are young trees, which expanded their leaves in the middle of the season, around the same time as the birches. Young trees often break bud earlier than mature ones.

MAY BEES

In March and April, in addition to the cellophane bees that I saw in the Townsend Cemetery, I saw queen bumble bees scouting for nesting spots and gorging on pollen and nectar from flowering plants in the yard.



Queen bumble bee on Rhododendron ‘Olga,’ April 25, 2023

On May 6, I saw my first “daughter bumble,” a representative of a queen’s first mature brood. These daughters are easy to identify, because they are literally half the size of their mothers.



May 6, daughter bumble bee on grape hyacinth. These florets are really tiny, and so is she!

The first brood of tiny daughters is only four or five individuals. They won't grow any larger in their 30-day lifespan, because all their energy goes into helping mom with the new brood cells in the nest. By about June 6, I expect to see a population of 20-30 medium-sized bumbles in the yard for each queen that I saw in April. Now that their daughters are out foraging, the queens will spend the rest of the season in their underground nests producing eggs that will be provisioned by an exponentially growing population of daughters.

By May 8, there were scores of bees buzzing through the Meserve hollies – several different species, all moving very fast. My eyes darted to a shiny bee on a glossy leaf.



Metallic green sweat bee on holly, May 8

There was also a crazy amount of interest in the Enkianthus blossoms . . .



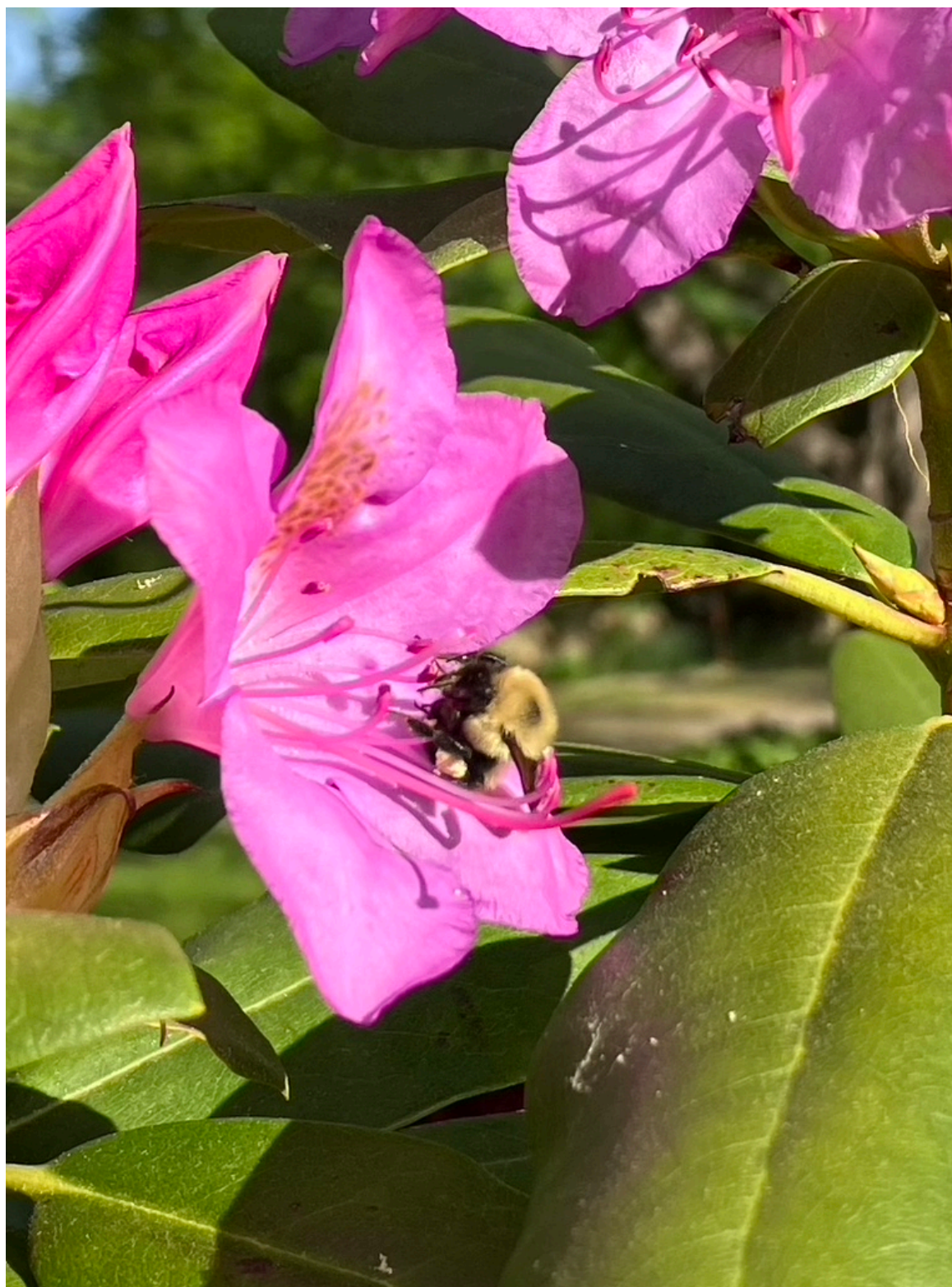
Unidentified bee on Enkianthus, May 8

. . . and the Murrow's honeysuckle blossoms.



Young bumble bee on Murrow's honeysuckle, May 8

The bumble bees attending this honeysuckle must have been freshly hatched daughters – they didn't know how to manage the pollen yet – it was all over them! Within a day, they'd figured it out, and the pollen was all being deposited neatly in their corbiculae.



Daughter bumble on Rhododendron 'Roseum elegans,' May 17

None of the shrub species pictured above is native. They were all planted in our yard at one point or another as ornamentals. We are gradually replacing the invasive honeysuckles with native plants. I'm glad to know that in the meantime, they are useful to our neighborhood bees in May.

Now that the spring ephemerals have bloomed and set seed, and all the leaves are in, and the birds have returned from the south, the next chapter of the year is already unfolding.

I must fly! I mean, I must bee!

