

[Trouble reading this email? View it in your browser](#)

 **Wild Ones**[®]
NATIVE PLANTS, NATURAL LANDSCAPES
KALAMAZOO AREA CHAPTER



Spring Beauty (Claytonia virginica) Photo: K.Patrie

April 2020

SEEDLINGS

What more substantial service to conservation than to practice it on one's own land?--Aldo Leopold

Culver's Root

Ilse Gebhard

I would never have expected Culver's Root (*Veronicastrum virginicum*) to be a good nectar source for butterflies had I not observed a Red Admiral probe tiny flower after tiny flower.



If it were not finding nectar, I would think it would have moved on to any number of other species in bloom nearby.

Culver's Root is in the figwort family and blooms in June-August. Its white, tubular flowers grow in spikes. The leaves are sharply toothed and grow in whorls of 3 to 7. It likes dry-mesic to wet-mesic conditions and does well in sun and part shade. Depending on conditions, it varies in height from 2 to 6 feet. One plant can have several stems and each stem can have several inflorescences, making it a focal point in any native plant garden.

In This Issue

Culver's Root

Bumblebees & Citizen Science

The Red Admiral

Kids On The Trail

**Dowagiac Woods
Ephemerals**

Our Favorite Things

**Cancellation
Notices**

**Community
Items of Interest**

Contact Wild Ones



Searching for Bumblebees

Ann Fraser

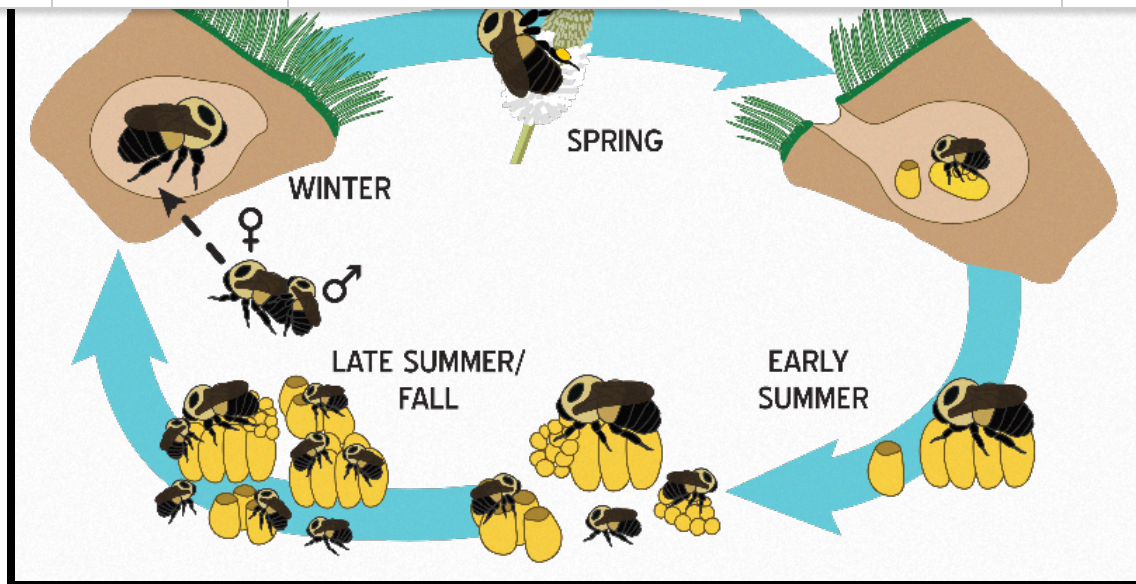
While our eyes may be focused on the swelling buds and bursting blooms of our spring-flowering plants, let's also take time to enjoy another springtime emergence, that of our native bumble bees.



Two-spotted bumble bee (Bombus bimaculatus) on bladder campion (Silene vulgaris). Photo: Niko Nickson.

Bumble bees are easily distinguished from most other bees and insects by their large, distinctively fuzzy and variously patterned black and yellow bodies (see photo right). Much like honey bees, bumble bees live in social groups that contain a queen, female workers, male drones and developing larvae. Unlike honey bees, however, bumble bees have an annual life cycle which begins in spring when hibernating queens, produced the previous year, emerge to feed and establish a new nest.

This is why the first bumble bees you see in spring tend to be very large and fly low over the ground. They are looking for suitable nesting sites. For those species that nest underground, abandoned rodent burrows or other ground cavities provide a ready-made home. Others prefer to be above ground, sheltering among piles of rocks, or under grass tussocks and leaf piles. Follow the bees around your yard or while out for a walk and see what they are up to!



Life cycle of a bumble bee colony. Artist: Jeremy Hemberger. Reprinted by permission.

After finding a suitable nesting site, the queen starts from scratch to raise her first brood of workers. This takes several weeks and can be a challenging process. She needs protection from the elements along with adequate nectar and pollen to fuel her activities and feed her young.

Many queens are not successful. But for those that are, they now have a workforce to take over the jobs of finding food and caring for the young. The queen rarely leaves the nest after this; she instead devotes her time to reproduction. Over the season the colony grows to in size, from dozens to several hundred strong, depending on the species. By late summer, colonies shift to producing new queens and males, both of which leave the nest to mate. The old colony gradually dies out and the new queens spend their time fattening up for their long winter hibernation so that in spring, they can begin the next cycle of life.

Bumble bees are important pollinators, and historically Michigan has been home to some 20 different bumble bee species. Unfortunately, some species are declining. The rusty-patched bumble bee (*Bombus affinis*), once common in the lower peninsula, has not been seen in the state since 1999. A recent [report on Michigan bumble bees](#) by Michigan Natural Features Inventory identified six species for updated state conservation status, including the black-and-gold bumble bee (*B. auricomis*) that is still relatively common in the Kalamazoo area. For more on how to conserve bumble bees, see a recent article on [how to support queen bumble bees this spring](#) from the Xerces Society for Invertebrate Conservation.

In addition to observing bumble bees in your surroundings this season, please consider joining myself, Professor Ann Fraser at Kalamazoo College, and my keen undergraduate research student, Niko Nickson to document bumble bee diversity and abundance in our area. We have launched a citizen science project called [Southwest Michigan Bee Watch](#) where citizen scientists are asked to photograph bumble bees in any location in southwest Michigan (including your backyard) and submit these photos through the national Bumble Bee Watch website. More information on [how to participate](#) and how to contact us is

Banner Years for Red Admiral Butterflies

Ilse Gebhard

Some years are banner years for Red Admiral butterflies. Labeled an “irruptive” species, they are cold intolerant and overwinter in the far South and Southwest to re-colonize the northern regions to varying degrees each year as spring advances. They can’t be too cold intolerant, though, since my earliest sighting is April 19.



It is wonderful to see Red Admirals with their flashy red diagonal bands crossing the forewings and red bands on the lower edges of the hindwings on those sunny days in late April and early May when few butterflies are out. They are fast fliers, so the best way to identify them is when they bask in the sun with their wings outspread before they are warm enough to fly.



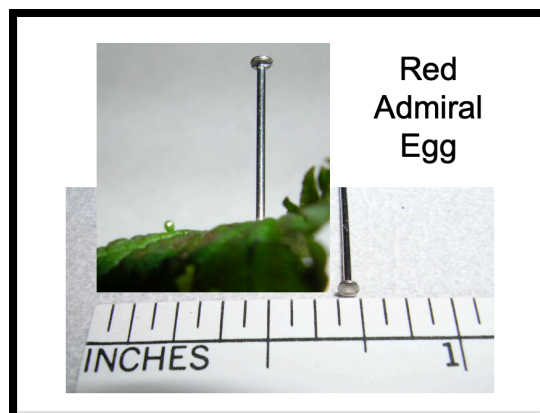
Red Admirals in our area, I had the good fortune to be walking with Monarch butterfly expert Dr. Karen Oberhauser and she taught me how to look for Red Admiral caterpillars. Their host plants are nettles and they hide and feed in shelters they make by “zipping” together the edges of nettle leaves.

In the ensuing weeks I collected 16 caterpillars, from tiny 1/8th inch first instars (larval stages) to 1.25-inch last instars.

Walking through thickets of Stinging Nettle with exposed skin can result in pain persisting for several hours, so I covered up and wore gloves to collect the folded up leaves. The young larva were entirely black but the body of later instars were either brown, gray or green with black heads and a band of yellow half-moons on either side.

Overall they appeared dark because they were covered with spines with pointed black branches. The eight later instar caterpillars happily munched on nettle leaves, formed beautiful tan chrysalises with golden spots, and eventually emerged as butterflies.

There seemed to be a problem, though, with most of the real tiny caterpillars. Seven of them did not appear to be eating as evidenced by lack of frass and not



reason for their inactivity - they were dead!

The tiny caterpillars had been parasitized and right next to six of them was a white cocoon the same size, namely 1/8th inch. Cocoon formation was incomplete for the seventh one and I watched the tiny white grub spin its cocoon. A 10 to 30-power microscope is nice for such viewing, although a hand lens or magnifying glass can be used. While I have become very fond of herbivorous moth and butterfly caterpillars, I still get that “yuk” feeling when confronted with carnivorous parasitic fly and wasp larva. That is when I need to remind myself about nature’s checks and balances.

About a week later, over a period of several days, 1/8th inch parasitic wasps emerged from six of the seven cocoons, which I froze for identification. They had long antenna and two had formidable stingers and were therefore females. They were braconid wasps, but would need an expert to further pin down the species.

One of the native plants by our deck is Culver’s Root, whose tiny white tubular flowers are in dense clusters of tapering, candle-like spikes. It is very showy, and always abuzz with many small insects, and apparently a good nectar source for at least one Red Admiral. One afternoon, while taking a break from weeding, I watched one for half an hour as it spiraled up spike after spike, inserting its proboscis in each tiny flower. I like to think it was one of the butterflies I had released and was showing off for me.

Kids On The Trail: Scavenger Hunt!

Alysia Babcock

Here's an idea of what to do with kids outdoors: Go on a "scavenger hunt" on a trail. It will be great to get fresh air and exercise and you can still keep social distance.

I was on the Kal-Haven Trail recently and took some photos of things your kids (and you) can search for; this will work for any trail or woodland area. I have shared some details below about what you are looking for to make it more fun (and educational):