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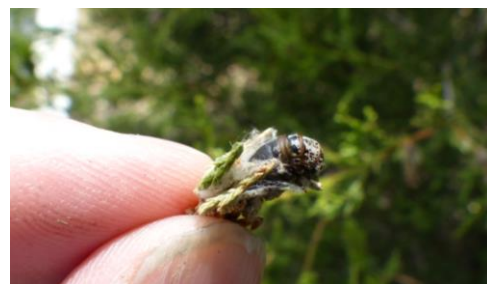
My wife Laura and I trekked eastward for a relatively close-by reunion with Skyline Drive and Shenandoah National Park recently and stopped at a rest area for some coffee and to stretch our legs a little. The stop soon reminded me of something I have said for years: One of the greatest life skills is to be dropped off into a parking lot or along the side of the road for a half hour and still have a great time. Call it...The Joy of Rest Areas. Let us proceed.



Bagworms create "bags" from parts of plants they feed on, in this case Juniper foliage and "berries" (JC)

At two rest-stops along the Pennsylvania Turnpike we enjoyed majestic walnuts, lovely hydrangeas, five-foot tall mulleins and their soft leaves and yellow flowers looming along steep hillsides like triffids, roses – and Japanese beetles, grape phylloxera insects on wild grapevines; it is of one of the deadliest pests to wine grape growers worldwide. And then there were – the bagworms.

Appropriately enough for a road trip, harkening back to the days with children and traveling songs, a la...the worms crawl in and the worms crawl out...Well, they were not playing pinochle on our snouts in this case, but *Thyridopteryx ephemeraeformis* (what a name!), our common bagworm, played out quite a scene.



The bagworm caterpillar emerges from part of bag to feed (JC)

Some of these munchkin caterpillars were ensconced within their cocoons that they had made from silk, feces, and plant parts of juniper in these restscapes. Others, when we were observing them, had emerged from their bags and were doing their damage to the junipers, damage that can become quite serious if uncontrolled in landscapes,



Grape phylloxera galls on leaf undersides (JC) Grape phylloxera galls on upper leaf surface (JC)

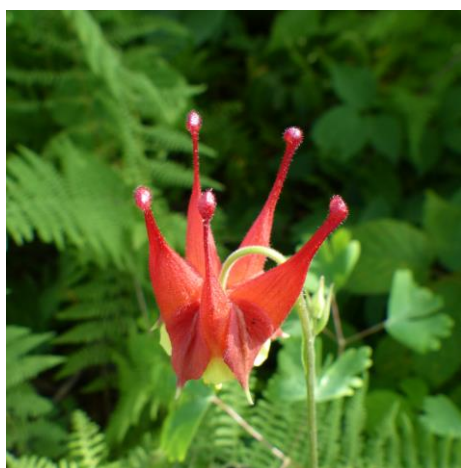
even killing this species and over 100 different plant species. My wife teaches second grade, and knowing even less about bagworms than me (we are all, after all, ignorant of almost everything – until we aren't), believed a friend who said these cocoons were galls.

Galls, though, are abnormal plant growths, for example the over 800 different and fascinating abnormal growths on oaks alone that are caused by insects that activate and deactivate plant genes, programming them to produce the gall that houses the insect eggs and larvae as they develop. With bagworms, the larvae that emerge from eggs laid by female bagworms build their own bag, they do not reprogram plant growth and induce galls. Bagworm larvae feed in their host plants when emerging partway from the bag, then pupate, become adults, mate and all that.

Bottom line though, my wife's class took great pleasure in removing what they thought were galls. Though they were actually removing cocoons rather than galls, the bagworms were effectively removed from their garden, stopping them from continuing on for another year. If only they knew they were caterpillars inside, though – these second graders would have been even more on their way to eradicating Nature Deficit Disorder!

All very wonderful to a plant – and insect – lover. Exercising, so to speak, our inner flaneurs. Of course, ultimately we were headed somewhere besides rest areas on this trip, and yes, the Joy of Loving, Virginia was on the agenda once my wife could pry me away from these interstate parking lots. Shenandoah and Skyline are only 240 miles from Akron, and this area is truly one of the greatest natural areas of the world. Our eastern U.S. mixed mesophytic forests in the Appalachian mountain areas are as good as it gets. Not quite as majestic as the Rocky Mountains but with the mix of hardwoods and associated plant communities, the shadowed layers of peaks and valleys at all times of the day, the wildflowers and wildlife and mountain and valley vistas – there is much to inhale.

We saw deer, no bears, butterflies and moths, ants farming aphids, and even a black rat snake sharing our trail. There were fields of bracken ferns, jewelweed both pale yellow and speckled orange, leaves tied and untied by caterpillars, crown-like flowers of wild columbine, monarch butterflies sipping nectar from milkweeds, and ethereal Indian pipes in full flower and tripartite symbiosis with fungi that feed trees and feed upon the tree roots, their third partner.



Top (Left to right): Ants farming aphids, Harmless black rat snake along Shenandoah trail, Yellow-flowered jewelweed

Bottom (Left to right): The crown of columbine, Monarch butterfly and milkweed in the Shenandoah, Ethereal Indian pipe in the Virginia woods

All photos courtesy of Jim Chatfield

I am always alert to invasive species in natural areas, and the usual suspects were there. There was *Ailanthus* (tree-of-heaven) which had obviously been treated by herbicides in an effort to remove them from the park, Japanese knotweed, paulownia trees, many others – and wineberry (*Rubus phoenicolasius*).



Wineberry fruits, before emerging, and after picking (JC)

I write this as if I knew something about this *Rubus* species before this week. I certainly have seen it, but without knowing it at all. *Rubus* is the rose-family genus that includes raspberries and blackberries, but wineberry is a different, related species. I admit (do not do this, children unless you know the plant well) - we did eat some of the fruits. They were juicy and tart, *deeeelicious* as Seinfeld's Kramer would say. They have a hard to describe luminescent orange-red color. They have totally cool plump pre-fruit structures covered with red hairs, once picked they leave behind little orange crowns. Way beautiful. And, as pointed out by the U.S. Forest Service sites we read the evening after – invasive; replacing native vegetation with dense, shrubby patches.

That is the deal with invasive species. They always bring you up short, short of knowledge, short of perspective. Though, now I know this species a little better, having gone from discovery of their beauty and tastiness in the day to measured awareness of some of their negatives by night. Nature, the journey continues...

...And, after all, we did our part, eating future wineberry invasives. Controlling invasives, one bite at a time.



Wineberries in hand. Tasty and tart (JC)