

Plant Lovers Almanac

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Summer finally arrived the last few weeks and now we can proceed with autumn. Joe-Pye weed is now mostly past. Franklinia is blooming with its camellia-like aromas. Those arrowwood viburnums which have avoided viburnum leaf beetles now are displaying their blueberry-colored fruits. Pink garden anemones are as glowing as the evening autumnal sunlight rays. Jack-in-the-pulpits in woodlands and gardens sport their cluster of bright red-orange fruits. The wonders of approaching fall abound.

Parasitic plants. Speaking of wonders, starring in Johnson Woods Nature Preserve near Orrville currently are thousands of tawny to cream-white stems and purple and brown blooms of a fascinating plant known as beechdrops (*Epifagus virginiana*). This plant was pointed out to me recently by biologist John Pogacnik of the Lake County Metro Parks during a visit to their wonderful range of parkland. Since I have visited Johnson Woods over a thousand times and probably hundreds of times in August and September in recent years, it is odd that I have never realized I was seeing beechdrops this time of year. I saw it, obviously, but not clearly. Now I do, thanks to John. It is a small 6-20 inch plant that becomes more noticeable as it grows from its earlier half-inch size. It parasitizes the roots of American beech.

Beechdrops does not possess chlorophyll and does not photosynthesize, and receives its carbon energy source from beech trees alone, delivered from the photosynthetic beech leaves and bark via the phloem and the stems and then to beech roots that beechdrops parasitize. Beechdrops have no green tissue, just the slender brown stalks and purple-brown inconspicuous two-lipped flowers, and specialized “haustoria” that penetrate beech roots. *Epifagus virginiana* is a member of the Orobanchaceae (the broomrape family), which has many genera and species which are parasitic on other plants. Fortunately, beechdrops are annual plants and do no real damage to the overall root system of beech trees.

Another plant that is often termed parasitic to trees is also commonly found this time of year, namely Indian pipe (*Monotropa* spp.). It is “often termed” parasitic to plants, but in actuality it is not. In a wondrous twist of nature, *Monotropa* is actually a “myco-heterotrophic” organism which is part of a tripartite symbiosis in that it is a “non-photosynthetic plant that obtains carbon from mycorrhizal fungi”. The *Monotropa* plant is in fact parasitic on mycorrhizal fungi which derive their carbon from the roots of other plants that they colonize. A plant-to-fungus-to-plant food chain. Yikes. There are many bizarre stories in them thar’ woods.

Beech (*Fagus grandifolia* and *Fagus sylvatica*). Speaking of woods, and trees, and landscapes, let’s continue in this *Almanac* with beech trees (*Fagus*). Beech trees are among the most glorious woodland trees, providing year-long grace. Beeches are the very definition of a sylvan glade. In winter the gold and silver remnant leaves of our native American beech (*F. grandifolia*) with its elephantine smooth gray bark, in spring its slender leaf buds giving rise to light green leaves, and through the seasons the grand stature of the tree and beechnut wildlife food, all are a sight to see.

European beech (*F. sylvatica*), comes in many horticultural forms, from copper-leaved beech, to tricolored beech (plant in protected sites), to weeping beech, to the much-admired medium-sized rounded fernleaf-beech, a favorite of OSU’s Secret Arboretum’s Joey Cochran, who particularly mourned the loss of a fernleaf beech adjacent to the water garden during the Wooster Tornado of 2010 (the 4-year September 16, 2010 anniversary of the tornado is next Tuesday). Joey and Secret curator Kenny Cochran, and Secret Arboretum itself, recovered

quickly and after Kenny and Joey cleaned up the fallen beech and other trees, quickly commenced...planting more trees. Also, Joey has the added attraction of two mature fernleaf beeches near the Arboretum Field Station, and the surety that soon they will display great golden yellow fall color.

Existence, of course, is more than just life at the beeches. There are plenty of powdery mildew diseases right now, from viburnum to fothergilla, from dogwood to magnolia. Tar spot of maple reflects the words of Cornell plant pathologist Wayne Sinclair, who said: "Tar spot of maple is one of the most spectacular – and least significant - diseases of maple. Ugly, tarry spots but little in the way of affecting overall plant health and survival. Emerald ash borer continues its New World tour and more and more ashes in northeast Ohio are dying and becoming hazards. Fall webworms cause airy nests on the ends of branches, but like tar spot of maple, do little to plant health, unless it is a young seedling tree that is totally engulfed. Even those did most of their food production in the leaves earlier in the season. After all, fall leaf color and drop is just around the corner.

And, so is the 2nd annual ArborEatum at OSU's Secest Arboretum at Ohio State University's Ohio Agricultural Research and Development Center in Wooster. This edible landscape feast and sharing will be held on Wednesday, October 8 at OSU's Secest Arboretum at the Ohio Agricultural Research and Development Center in Wooster (5:00 to 8:00 in the Arboretum Pavilion – listen for the music blaring forth!) Start planning your menu items. Last year's hits were legion, from over 30 entries from Cleveland's Lois Rose (from bitter orange marmalade to medlar jelly) to ramps soup to controlling-invasives-one-bite-at-a-time Autumn olive pate de fruits. Lambsquarter omelettes anyone? Just bring your edible landscape food or just appetites. Maple syrup tasting is an added attraction this year. No registration or fee.

And one final fall note: enjoy seven-son flower (*Heptacodium miconoides*). Masses of white petals are now present on the seven-son flower shrub in northeast Ohio now, marking the beginning of the long inflorescence reign for this plant. These petals are arrayed on the namesake candelabra-like seven-pronged flower stalks. In a week or two these white petals will give way to a month or more of ripening ornamental salmon-pink sepals, the floral envelope just behind the petals. This large shrub to small tree will grow to 15-20 feet and even larger over time. Those flower stalk (peduncles) are also quite attractive for weeks, with their seven-armed candelabra effect. Add to this the attractive exfoliating bark which is reminiscent of crape myrtle, and this is a very ornamental woody plant selection that is gaining in popularity. Seven-son flower is in the Caprifoliaceae family, is native to China, and does best in sunny sites and, though tolerant of many soils, does best in moist, well-drained organic soils.