



Wildflowers

President's Column

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WILDFLOWER ASSOCIATION OF MICHIGAN

WAM

For those of you who don't know me, I reside in Kalamazoo (actually Oshtemo Township) and own a native plant nursery. Late July and early August are our "down time" during the growing season, so my wife, son, and I are heading to Lake Michigan for a day at the beach tomorrow. I'm quite excited as I have not been to "the lake" yet this year and my nearly three year old son should have a blast. Although I will certainly be spending most of the day playing in the sand and surf with my son, I do plan on taking a short botanical walk in the dunes to observe the unique plants and habitats. I'm really hoping to find the federally threatened Pitcher's Thistle (*Cirsium pitcheri*) as I have not seen it in bloom for many years. It's quite concerning to me that a bill recently passed by our state legislatures will likely lead to further development of our unique and irreplaceable critical dunes.

When I first started attending the WAM conferences shortly before the turn of the millennium, I was a budding native landscaper. I was simply looking for practical information to assist me with the conversion of my front and back yards to a more biologically rich and less labor intensive landscape. Having a BS in Chemical Engineering, I was also seeking to create a

landscape that did not require synthetic chemical inputs. How quickly life changes... My two acres of yard soon became thirty-five acres of former oak savanna that needed to be restored. I started propagating plants from seed I collected locally. I found myself often reading books on ecology, botany, and restoration in my spare time. In 2007, I joined the WAM Board of Directors. And then, in late 2008, I sold the first native plants from our nursery. So what started this whole journey into native plants? Was it seeing the glorious stands of Wild Lupine (*Lupinus perennis*) on the property adjacent to us that we now own? Was it the Whippoorwills that greet us during spring nights? It certainly might have been the tutelage of Nancy Small or Steve Keto, but no, it goes farther back than it. It was my love for nature which was nurtured by my parents and grandparents and reinforced by the countless hours I was allowed to spend self-exploring in nature during my youth. Education has been at the forefront of the WAM mission, and will continue to be, but it is critical that those who have learned the importance of native landscapes pass it on to our youth. We must allow and encourage our youth to spend time in nature. Whether it be a sliver of

overgrown field or a large forest, get them out there and let them explore. If you could have seen the look of amazement, amusement, and inquisitiveness when I placed a young walking stick on my son's arm the other day...

I would like to thank Dr. Robert Krueger for his exceptional leadership and commitment to WAM during his tenure as President. He led our organization brilliantly through some of the most difficult times... from the economic downturn to the loss of our grant funding source. He skillfully guided us through these obstacles for which we had no control and helped build a stronger, more resilient organization. Additionally, Dr. Krueger is continuing to serve WAM as Board Member, which is greatly appreciated. Again, thank you Bob!

Now I have to mention "The Drought of 2012." Depending on where you live in Michigan, its impact might have been from minimal to quite severe. Generally the further south you live, the worse it has been. In southwest Michigan, it was particularly brutal. Although some recovery has occurred during recent weeks, many plant species either went dormant early or will not flower this year. From ecological perspective, it was a unique opportunity to observe the drought tolerance of our native

President's Note, con't.

species. As expected, the extremely deep-rooted plants showed essentially no signs of stress (Baptisia, Silphium, Asclepias, Tephrosia, etc). What was surprising to me was how the drought impacted the more shallowly rooted species that typically occur in sandy, dry soils. The Lance-leaved Coreopsis (*Coreopsis lanceolata*) was stunted and had weak blooms. Some Western Sunflower (*Helianthus occidentalis*) went dormant early and it appears most will not bloom. Large portions of Bearberry (*Arctostaphylos uva-ursi*) clones lost over 50% of their leaves. Prior to European settlement, it was likely that conditions such as these would have led to very large, catastrophic fires across the landscape resulting in the expansion of prairie and savanna communities.

Another climatic phenomenon that occurred throughout Michigan this year was the early onset of above normal temperatures and the continuation of this trend throughout the spring and summer. Not only did this accelerate the drought, but the blossoming for nearly all species of flowering plants was also accelerated. From my observations and most accounts I have heard, the typical increase was between two and three weeks, although certain species and localities might have experienced even more. So one of the questions I had as this became evident in the spring was, "How will this effect the mid and late summer blooming species?" Will everything bloom early, or would this normalize? From a botanical standpoint, I was curious as to how does temperature/degree-days control growth and flowering versus solar cues. Thus far, it appears the former is the most important factor. As of late July in Kalamazoo, nearly all of the late summer flowering species either have already started blooming, or will be soon. So this begs the question, what happens to the pollinators in late summer?

Chad

Website Musings

Encyclopedia of Life:<eol.com>

Probably the most ambitious project on the web, this site currently contains 1,027,982 pages with 1,223,635 images. Browsing is not an option, so to enter one must type a search term into the query field. It is an excellent site filled with information about the organism, images, maps of global distribution, related content and literature citations.

Ms. Johnson's Photographs <loc.gov/pictures>

The Library of Congress recently posted Frances Benjamin Johnson's (late 1800's to 1935) photographs of America's gardens along with some of the great gardens of Europe. Ms. Johnson wrote for Country Life in America and later for House and Garden magazines. These aren't just eye-candy, but some of the finest images in existence on the subject of American gardens and there design.

Science A GoGo

<www.scienceago.com>

Want to get your kids or grandkids interested in science? Or maybe satisfy a curiosity of your own? This is a place to try out. Articles are fun, easy to read and understand and accurately informative. What more could one ask then an article entitled "Bow to your Insect Overlords!"

Rain Gardens

Want to plant a rain garden but you don't know how to start? Go to :

<www.kidsgardening.com>

and enter "the right size for a rain garden" into the search box. Up will come an easy to use plan with a simple formula to figure out size, that adjusts to impervious and turf/vegetative areas with factors that consider runoff. Its

easy direct, and with a few measurements, quick. Additional information on benefits, plants etc is linked to the article.

Bob Krueger

Squawroot (*Conophilis americana*)

I recently had the pleasure of reviewing the book "Spring Wildflowers of the Northeast: A Natural History" by noted botanist and author Carol Gracie for the scientific journal 'Economic Botany'. This is not a field guide, but a beautifully illustrated series of essays on some of our more unique native wildflowers. The pictures, more than 500, are outstanding! I thought I would share some of the information on one of these; squawroot of the broomrape (Orobanchaceae) family.

This is an odd plant as it lacks chlorophyll and parasitizes mainly red/black oak trees. It will not kill the tree, but does attach to its roots for nourishment. It likes acid soils. In the mid-Spring, thick finger-shaped inflorescences erupt out of the soil and bear numerous small, creamy-white tubular flowers. The stalk can be tan to brown, darkening with age and resembles a cone when the fruits mature (hence conos in the name). Seeds form from self-pollination and are very tiny, less than 1 mm in diameter. They germinate when near an appropriate growing oak root tip infected with the right fungus. In the Smokey Mountains, black bears eat the flower stalks when they come out of hibernation, sometimes to the extent of 10% of their diet. And no nectar is produced by the flowers! The stalks are 45-60% fiber which is thought to normalize the bear's digestive system after hibernation. They continue

Squawroot, con't.

to feed on them during the rest of the growing season as do deer and mice.

Squawroot is also called 'cancer root' probably due to its tubers and their tubercules. 'Bear root' is another name as is 'bear corn' due to the immature seed capsules resemblance to corn seeds. But the name 'squaw root' has lost its origin. Perhaps it had medicinal usage by Native Americans, however its chemical analysis as yet does not support any medicinal use what so ever.

Bob Krueger

Squawroot
(*Conopholis americana*)



2012-2013 Board Meeting Dates

October 17, 2012; 4-6 PM

January 16, 2013; 4-6 PM

Note: March 3 & 4, 2013, Annual Conference

Meetings are held at the MSU Hancock Turf Center on Farm Lane in East Lansing, unless otherwise determined by the board at the previous meeting.

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