SEEDLINGS, the Newsletter of Kalamazoo Area WILD ONES Native Plants, Natural Landscapes

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

Supplement—February, 2018 Contents

• For February Program, Tom Small Explores the Range of Plants Suitable for Shady Sites, Savanna, and Woodland, along with Some Musings about the "Wood-Wide Web."



• Dave Wendling Traces the Evolution of Early Land Plants, Beginning with Bryophytes, for the Wild Ones Program March 28

- Quotations for Contemplation
- More Events of Interest to Wild Ones
- Events Cancellation Policy

February Program Features the Rich Possibilities of Plants for Shade, Savanna, & the "Wood-Wide Web"

By Tom Small

When Nancy and I presented a Wild Ones program on plants for shade in January 2007, we offered a slide show that was basically an illustrated and annotated listing of "woodland wildflowers." I've learned a lot and thought a lot in the 11 years since that program, and what I hope to offer for Wild Ones this February will include such a listing but also delve more deeply and offer a much broader range of possibilities.

Part of what I want to suggest is that "plants for shade" is far too limiting a concept for what we need to know and the practice we need to follow in the "natural landscaping" of our urban-suburban environments.

As our friend Kim Chapman points out, up until fairly recently ecologists assumed that southwest Michigan, historically, was either heavily wooded or

virtually treeless wherever they found remnant species of "prairie plants." But in fact, intermediate "part-shade" levels of light predominated across southern Michigan's ecosystems, with only limited areas of dense-shade forest, and full sun mostly in scattered, quite small prairies—either wet or dry.

We now know that the predominant ecosystem on the dry, flat-to-rolling landscapes of southwest lower Michigan was savanna, especially oak savanna or "oak openings," where clumps and scatterings of Black and White Oak trees



Early woodland shade plants growing under oaks in Tom and Ruth's yard: goldenseal (Hydrastis canadensis) and trillium (T. grandiflorum) in bloom, with bloodroot leaves from earlier bloom.

thrived side by side with a rich mixture of grasses, sedges, wildflowers, shrubs, and understory trees.

Neither Prairie Nor Forest

Most of the urban and suburban landscapes where we live lend themselves pretty well to establishing some approximations of these historic savannas. So mostly what we want for our plantings are neither strictly prairie nor strictly forest plants but ones that thrive under or at least tolerate a broad range of conditions, from forest edge and woodland to prairie "openings," from part-sun to part-shade, from dry to moist. Another way of characterizing the wide range of "shade-plant" possibilities is in terms of "edges," which, as Darke and Tallamy emphasize in *The Living*

Landscape, are "a defining element of suburban residential landscapes." Almost every feature in a suburban yard is an edge, between soil and pavement or structure, between turf and garden bed, between shady and sunny, between wet and dry, between your yard and the neighbor's. I'll try to suggest how we can both recognize the limitations and exploit the diverse possibilities of "edge environment."

Intermediate Communities

I'll draw on my experience and observation and on my reading to suggest what plants are best suited to these kinds of "intermediate" communities, where ecosystems intersect and overlap. My illustrations will largely come from our own yard, which approximates the light and



Black cohosh (Actaea racemosa) blooming in "savanna-edge" conditions in our yard

shade conditions of savanna (tree canopy cover 5% to 50%) and woodland (50 to 75%).

I'll touch on the possibilities for "layering" of savanna plants, from tall canopy trees, understory trees, and shrubs, down to the forbs, grasses, ferns, and sedges, so that in our gardens we take full advantage of both horizontal and vertical edges, where sometimes surprising transitions and juxtapositions occur.

Finally, since we're dealing not just with "plants for shade" but complex, everchanging plant communities, I'll touch on the emerging recognition of what some are now calling the "wood-wide web," the wondrous networks of communication and mutual aid within and between plant species, fungi, microbes, and invertebrates. And that probably requires a word or two about restoration of the soil as an essential part of a savanna/woodland planting.

Does all this sound like a lot for 50 minutes? A bit too much like roller skating through the Louvre? Well, we'll have to see how it comes out. Stand by.

Tom Small is co-founder of the Kalamazoo Area Chapter of Wild Ones and coauthor, with his deceased wife Nancy, of *Using Native Plants to Restore Community.* He's a past board member of the Wildflower Association of Michigan, a member of the WMU Faculty Climate Change Working Group, and former clerk of the steering committee for Quaker Earthcare Witness (QEW), the Quaker environmental organization for the Americas. His recent publications include the pamphlets "Talking About Climate Change: A Call for Dialogue" and "Contemplative Action in the Time of Climate Change," for QEW, and "A Garden Ethic for a Living Landscape," in *Wild Ones Journal*. He's currently revising the chapter on Soil for the second edition of *Earthcare for Friends: A Study Guide for Individuals and Faith Communities.*

We will meet **Wednesday, February 28**, at First United Methodist Church, 212 S. Park St., downtown Kalamazoo. Socializing at 6:30; **program promptly at 7**.

Dave Wendling Provides Evolutionary Overview of Early Land Plants, Bryophitic Ancestors of All Flowering Plants

For the Wild Ones March program, Dave Wendling will speak about the natural history of the earliest land plants, the Bryophytes, and their place in our current gardens and natural areas.

The ancestors of our Bryophytes (Liverworts, Mosses, and Hornworts) were the first land plants. They appear to have arisen from a single colonization of the land surface around 450 million years ago by freshwater green algae called the Streptophytes.





BRYOPHYTES: a liverwort (Pellia epiphylla) and moss blooming on a stone

In order for plants to survive on land several evolutionary innovations had to occur. Dave will discuss some of these early innovations and successive

innovations that occurred in the bryophytes themselves (Liverworts, Mosses, and Hornworts). Then he'll illustrate what had to happen for the sporebearing vascular plants, the Pteridophytes (Lycophytes and Ferns) to evolve. These evolutionary innovations did not stop there but continued over millions of years, resulting in our seed plants and our flowering plants. Dave will cover some of the reasons why they became the dominant plants on land.

Dave will continue by illustrating the structure and reproduction of the Bryophytes and Ferns, with the basics of how to identify them. He'll conclude with a photo gallery of some of the more common Bryophytes, many of which we will see on the **Wild Ones June 23 field trip to Dowagiac Woods**, which Dave will lead.

Dave Wendling is a retired family physician, a grandfather, and an amateur naturalist. Ever since childhood he has been interested in the natural world. In addition to native plants his current interests are the Michigan native turtles, frogs, ferns, and mosses. As a physician he spent his time healing people, but now he hopes to spend the rest of his time "healing the earth" and is a member of the Citizens Climate Lobby.

He is a volunteer with many local and regional conservation groups including the Michigan Nature Association, Southwest Michigan Land Conservancy, The Nature Conservancy, and Kalamazoo Area Wild Ones. He has been a member of Wild Ones since the year 2000 and served as the Kalamazoo chapter's president for six years. Currently he's president of the Michigan Botanical Club, Southwestern Chapter. His interest in native plants was influenced by Sara Stein's book *Noah's Garden*, and he has been gardening with native plants for about 20 years.

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Quotations for Contemplation

Every species is a form of remembering. --Maya Tiwari, *Ayurveda: A Life of Balance*

The land knows what to do when we do not.

--Robin Wall Kimmerer, Braiding Sweetgrass

In a sense, the essence of living is a sort of memory, the physical preservation of the past in the present. Put another way, life is extremely conservative . . . It will change in order to stay the same.

--Lynn Margulis and Dorion Sagan, *Microcosmos*

More Events of Interest to Wild Ones

31st Annual Michigan Wildflower Conference Sunday, March 4, and Monday, March 5, 2018 Kellogg Conference Center, MSU, East Lansing

The Keynote speaker for this year's conference is Claudia West, co-author, *Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes.* For a full schedule and information on registration and accommodation, go to <u>www.wildflowersmich.org</u>.

Altars and Myths

Through March 11

An Exhibit of "Enchanted Forest" Sculptures by Sniedze Janson-Rungis James and Lois Richmond Center for the Visual Arts, WMU campus

Many of us know the Richmonds, and some of us know Sniedze Janson-Rungis. She's put together an exhibit of 22 sculptures, constructed of tree trunks and branches, bones, shells, masks, and found objects. Together, in the confined space of the gallery, the sculptures create a strange, endlessly evocative "enchanted forest." Take the time to see it. Admission is free. Gallery hours: Tuesday-Thursday 10 a.m.-6p.m., Friday 12-9 p.m., Saturday and Sunday 12-6 p.m.



Events Cancellation Policy

If the weather is questionable and you're wondering whether a Wild Ones indoor program is canceled, please watch WWMT Channel 3 for a cancellation announcement of our program. If time permits, an e-mail cancellation notice will also be sent to members. Field trips and plant exchanges are held rain or shine and canceled only in severe weather: i.e., raining cattails and dogwoods, mit donner und blitzen.

SEEDLINGS is edited by Tom Small and appears five times a year, with a few additional brief supplements. The next regular issue, for **March-April, 2018**, will come early in

March. **Deadline for submission is Monday, February 26.** Please send submissions, comments, and suggestions to Tom at yard2prairy@gmail.com. For more information and news, check us out at www.kalamazoowildones.org and www.facebook.com/KalamazooAreaWildOnes