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KEYNOTE SPEAKERS: LYNN STEINER
Lynn Steiner is one of the Upper Midwest's Best-known garden writers and a frequent speaker at gardening and environmental events. She is the author and photographer of several books that advocate for the effective use of native plants in the typical home landscape. Landscaping with Native Plants of Michigan, (named a Michigan Notable Book for 2007), Rain Gardens: Sustainable Landscaping for a Beautiful Yard and a Healthy World, Landscaping with Native Plants of Minnesota, and Landscaping with Native Plants of Wisconsin. She also helped develop, write, and provided photographs for The Complete Guide to Gardening series, ten regional gardening books published in 2012 by Cool Springs Press. For Fifteen years, Lynn was the editor of Northern Gardener magazine, the official publication of the Minnesota State Horticultural Society. Under her direction, Northern Gardener received several Overall Excellence Writers Assoc. Media awards.

Presentation: Midwestern Masterpiece: Celebrating Plants and Plant Communities
This program points out the diversity and beauty of our unique Midwestern plant heritage, including the tall-grass prairie, the oak savanna, the Eastern deciduous forest, the Northern coniferous forest, and pine barrens. It includes a mini travelogue on places you can see natural plant communities, as well as restorations. It shows how to use natural plant communities as models for landscapes and gardens. The program includes photos and descriptions of some lesser-known Midwestern native flowers, grasses, groundcovers, ferns shrubs and trees for landscape and garden use.

BEN VOGT
Owner of Monarch Gardens, a prairie garden design firm in Nebraska. He has published 170 articles for Houzz.com. Benjamin's writing and photography have appeared in dozens of magazines and books, including Gardening for Butterflies (The Xerces Society), Pollinator Friendly Gardening, and The Tallgrass Prairie Reader. New Book soon to be released, A New Garden Ethic: Cultivating Defiant Compassion for an Uncertain Future.

Presentation: A New Garden Ethic: Cultivating Defiant Compassion for an Uncertain Future
Why Gardening with Native Plants is an ethical and even moral imperative in a world of climate change and extinction. This talk explores ecology, science, psychology, and philosophy as we ponder how to embrace gardens as places to create social and cultural change benefiting all species.

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The Grass River Natural Area

My wife and I spent 3 days and 2 nights in the Northwestern, Lower Peninsula of Michigan in late September. One of the places we visited was the Grass River Natural Area. Not having been there in a few years, we were amazed at the new visitor’s center! It is gorgeous and has numerous display rooms, a room for lectures, a gift shop, and an outdoor covered picnic area. Located west of Mancelona and south of Bellaire, it contains more than 400 species of plants, 65 species of birds, and numerous reptiles and mammals. One of those plant species, not easy to find elsewhere, Marsh St. John’s Wort, *Triadenum Virginicum*, we found right beside the boardwalk on the Sedge Meadow Trail.

No matter what type of wild flowers you are interested in (with the exception of an *alca flora*) Grass River has a trail along which you may find them. The formational Sedge Meadow Trail is joined by the Tamarack Trail, Fern Trail, Woodland/Wildlife Trail, Glacial Plain Trail, and the Cabin Trail, all are easy to follow, well-marked, and well maintained; and if you look closely you will be able to find over 88 species of mosses and 22 species of liverworts! So bring your hand lens and your lunch. Volunteers are generously present to guide you if needed. This is truly a Pure Michigan gem!

RJK

‘Bee’ a Friend to Pollinators

The following recommendations are courtesy of the National Resources Conservation Service of the USDA. For additional information, visit www.nrcs.usda.gov/pollinators. Please consider these when you plan your gardens for next spring’s planting.

1. Use pollinator-friendly plants in your landscape (scrubs, trees and herbaceous plants), especially ones that bloom early providing nectar and pollen when food is scarce. Dogwoods, cherry, plum, willows, and forsythia are choices.
2. Choose a variety of plants with different flower colors, shapes, and scents.
3. Reduce or eliminate pesticide use (especially those of the neonicotinoid class)
4. Select plants that will in turn provide habitat for pollinator’s larval stages, and accept the damage that will occur.
5. Provide clean water for pollinators in a bowl, pan or birdbath with stones half submerged for perches.
6. Leave dead tree trunks in your landscape for wood nesting bees and beetles.
7. Support land conservation in your community by helping to create and maintain community gardens and green spaces to ensure that pollinators have appropriate habitat.

Plan well and you will help all kinds of Michigan’s pollinators; bees, butterflies, moths, birds, beetles, and other insects.

RJK

Did You Know?

Recent findings by researchers led by Paul Shamble (Harvard University) show that some jumping spiders may be able to detect sounds up to 3 meters away using specialized hair sensors.

The number of butterflies in the UK plummeted by nearly half since 2013 despite good weather conditions. Only a few increased in numbers countering the general trend reported the BBC October 10, 2016.

Science News on October 7, 2016 reported that fumes from vehicle exhaust hinders bee’s ability to learn floral scents (R. L. Leonard et al, University of Sydney).

Science News in late September reported that researchers have found that bumblebees may be able to express base emotions. The bees were “sugar-buzzed” after receiving a nectar snack. The scientists (Queen Mary University) devised a rather complicated maze/flower color test and showed that agitated bees were slower to navigate the maze than bees who had received the sugar snack just prior to the experiment. The energy from the snack was not the cause for speedier flying, but was named the reason for the decision making.

The New York Times reported in September that ants can become addicted to morphine using a simple feeding protocol of sugar; sugar plus morphine and sugar gradually reduced to pure water. About 2/3’s of ants exposed to morphine chose it over sugar from groups where the sugar morphine solutions gradually reduced to zero sugar and only morphine. The researchers further concluded that ants are the first non-mammal to display drug-seeking behavior.

The Christian Science Monitor reported in August that dendrochronologists took thin samples from a Bosnian Pine in Greece and counted its rings. They determined it to be at least 1,075 years old making it the oldest tree in Europe. Our U.S. oldest tree is a Joshua pine at over 4,000 years old.

The Washington Post in August published data confirming that neonicotinoid pesticides used on crops are harmful to bees. This researcher reaching this conclusion examined 18 years of studies on more than 60 species of bees. The studies selected compared bees foraging on treated crops versus non-treated crops.

RJK
Viking Medicinal Plants

So, think of Vikings and what comes to mind; strong people, fighting and enjoying it, with a desire to die in battle as it was the way to enter Walhalla in the afterlife. Not much there about medicinal plants! My thoughts exactly until I took a botanical excursion to the habitats of Zealand (Denmark) this summer after attending a scientific conference in Copenhagen.

Professor Anna Jager, one of the excursion leaders talked about the art of healing during the Viking age. Most of her knowledge was drawn from archeological findings. She described 16 plants that were used by households as no ‘Healer’ per se existed in Viking villages! Several of these were of particular interest to me as we have them here in Michigan as uncommonly encountered introduced wild species.

These include: the Toxic spp. Conium maculatum and Aethusa Cynapium (Poison Hemlock and Poison Parsley); Cichorium Infectious (Chicory); Sambucus Niger (Common Elderberry); Petasites Hybridus (Butterbur); and Althea officinalis (Marsh Mallow).

So the question to ask is what closely related spp. might be found as natives in Michigan -and- were used by our indigenous Native Americans for medicinal purposes? Look into that and let me know what you find out, as I will be also.

As an aside, I used a free web service, the MPNS portal (Medicinal Plant Names Service) of KEW Gardens to check names used in this article. It’s free access is <mpns.kew.org/mnps-portal/.

RJK

Twinleaf for your Garden

Twinleaf, Jeffersonia Diphyllum is a Michigan native found mainly in counties in the lower half of the Lower Peninsula is an “attractive” and unusual early (April) plant. It is a member of the Berberidaceae and was named to honor Thomas Jefferson by Benjamin Barton.

The leaves of the plant emerge as bright red-violet “folded wing butterflies”, turn green when open and are greatly constricted at their center so they resemble ‘twins’ but are actually single leaves. In the fall the leaves turn yellow when they senesce. The flowers are white and closely resemble those of Bloodroot. Seeds are contained in the capsules whose top opens when they are ripe. It has been estimated that 47%-90% of a given plant’s seeds are lost to rodents eating them before they are ripe. Like Bloodroot, the seeds bear fleshy elaiosomes and are out dispensed.

Twinleaf was once noted as a medicinal plant and used to treat rheumatism, but no scientific basis supports this use. It grows best in rich woods with calcareous soils and can still be found in the gardens at Monticello (many thanks to Carol Grace, ‘Spring Wildflowers of the Northeast’)

RJK

My Fall Tree Planting

So what did your WAM past-president plant this fall to replace three Green Ash trees that were destroyed by the Ash Borer? Well in Big Rapids we have a very good city plan to replace ‘parkway’ trees with selections that the homeowners request, at reasonable cost. I had planted two Scarlet Oaks (Quercus Coccinea) and one Tulip Tree (Liriodendron Tulipifera) as these are complimentary. They will supply lots of good food for caterpillars and produce food for squirrels, as well as look strikingly beautiful in the fall. The oaks will be a brilliant red and the Tulip Tree a stunning yellow. Additionally the Tulip Tree should provide nectar and a pollen source for native bees. I need to protect both from winter browsing deer, but net bags (from old panty hose feet- not mine) filled with milogranite should do just fine. Its odor provides several weeks to months of deer repelling action.

Big Rapids has a long running title as a tree city. Local nurseries put in trees and supply healthy vibrant saplings for the homeowners requesting parkway plantings. I hope your community does likewise. I’ll keep you posted as to the tree’s progress. What trees did you plant this year?

RJK

30th Annual WAM Conference - March 5 & 6 2017

Information and Links

http://wildflowersmich.org/index.php?menu=28 to register online or download a paper registration form.

Jan. 15 - Feb. 23: Online registration available at early-bird rates; registration form with early-bird rates available for download.
Feb. 24 - Feb. 28: Online registration available at walk-in rates; registration form with walk-in rates available for download.
Mar. 1 - Mar. 4: No online registration available; registration form with walk-in rates available for download, but with instructions to NOT mail the form, just bring it to the conference.
Mar. 5 - Mar. 6: No online registration available; no registration form available for download. Registrations accepted only at the conference.

My contact information for general registration issues: email (preferred): wamregistrar@gmail.com, phone (leave message):734-678-6685

Address for mail-in registrations:
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