



In these branches birds once sang

Ecological lessons from the demise of the passenger pigeon, a bird that once lived in some of the oldest trees at Matthaei Botanical Gardens & Nichols Arboretum.

In these branches

Vast numbers of passenger pigeons thrived for millennia in North America, many of them roosting in our region's native trees. It seemed impossible that a creature so numerous could be wiped out. What conservation lessons can we learn from this remarkable bird, and what parallels to the plant world can we draw?

“Martha is dead,” the Cincinnati Enquirer reported on September 2, 1914. Martha, who had been living at the Cincinnati Zoo for 15 years, was the last living passenger pigeon in the world and an example of a population that once numbered in the billions.

By many accounts, passenger pigeons flew overhead in flocks large enough to blot out the sun's light, or roosted in trees in branch-snapping quantities. John James Audubon himself calculated a flock in Kentucky in 1813 to be more than a billion birds. When Martha died, an entire species died with her.

The passenger pigeon still stands today as one of the largest examples of human action as a major cause of whole-species extinction. The pigeon didn't stand a chance against the insatiable demand for the birds as food or sport, according to *A Passing in Cincinnati*, a pamphlet published in 1976 in Washington, D.C., by the Office of Communications, Department of the Interior:

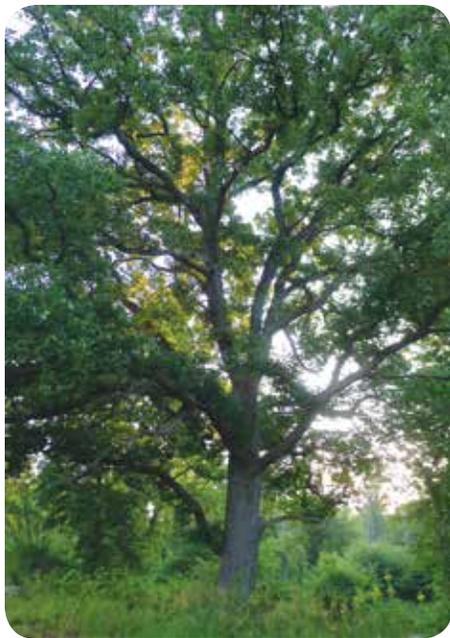
All kinds of firearms were used, but traps and nets claimed the greatest numbers of those mild-mannered birds—often in the hundreds or thousands at one time. They were so numerous in the early 1800s that one farmer once caught more than 2,000 simply by closing the door of his barn after the pigeons flew inside.

American colonists used nets as early as 1640 to take pigeons, and the practice was continued until the pigeon population was virtually exhausted....

Ceaseless slaughter and lack of protection proved the final undoing of the passenger pigeon. By 1886 only two flocks were known to exist. According to *A Passing in Cincinnati*, in the late 1890s and early 1900s a few states had enacted laws to protect the pigeon, including Michigan, and some individuals made an effort to save the pigeon, but it was too late.

The University of Chicago sent the Cincinnati Zoological Gardens a female pigeon in 1902. When Martha died in 1914 she was “suspended in water and frozen into three hundred pounds of ice and shipped to the Smithsonian Institution. . . .”

On the cover: A bur oak (*Quercus macrocarpa*) in the Great Lakes Gardens at Matthaei has been growing since George Washington was president. The tree likely was a nesting place and source of food for passenger pigeons in the nineteenth century.



A Cautionary Tale

In his book *A Feathered River Across the Sky* author Joel Greenberg writes, “Human beings destroyed passenger pigeons almost every time they encountered them, and they used every imaginable device in the process. . . . Whether a concerted effort could have reversed the decline and altered the outcome was a question asked far too late for any attempt to have even been tried. . . . It is hoped that this tragic extinction continues to engage people and to act as a cautionary tale so that it is not repeated.”

The implications of a keystone species—one that disproportionately impacts the structure of the ecosystem as a whole—going extinct is perhaps unknowable, observes Matthaei-Nichols natural areas manager Jeff Plakke.

“Probably the best illustrations of what can happen from over-exploitation in North America are the Dust Bowl and more locally, the Great Michigan Fire,” he says. (The Great Michigan Fire was a series of simultaneous forest fires in Michigan in 1871.) “Extinctions of a single species may be less dramatic, but could easily have cascading effects for centuries or millennia.” Plakke points out that the extirpation of beavers in southeast Michigan through hunting and trapping for pelts well illustrates that cascading effect. “Beavers are a prime example of a keystone species,” he explains. “They selectively harvest trees, build dams in creeks and streams, and create extensive acreages of open wetland communities. They significantly changed the hydrology and development of soils. Numerous species of plants, animals, birds, and insects depended on beaver to literally build these ecosystems.” Passenger pigeons were certainly a keystone species as well, continues Plakke. “Numbering into the billions, the pigeons must have had an enormous impact on the environment through their feeding and the movement of nutrients, nuts, and seeds through their migrations.”

Plant-World Parallels

Sheer numbers and the colorful spectacle of their flight made the passenger pigeon particularly vulnerable to exploitation. While plants don't move in the same attention-grabbing way as birds and other animals, parallels can be drawn between their decline or demise.

birds on sang



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Some groups of plants once constituted entire ecosystems unto themselves. “The prairies and oak openings of North America are good examples of ecosystems that have nearly disappeared,” says Matthaei-Nichols director Bob Grese. “Many of the plants associated with those ecosystems are now quite rare.”

A prairie and savanna management guide prepared by the Michigan Natural Features Inventory for the state DNR wildlife division cites a study estimating that just .02% of the Midwest’s original savanna remains, “declining from around 11 to 13 million acres to just a few hundred acres spread across a dozen states.” The report goes on to say that the loss of savanna in Michigan is most dramatic in the oak openings communities, which have declined from an estimated 900,000 acres to just 3, a loss of 99.9996%.

Some individual plant species are also at risk, notes Grese. “American ginseng (*Panax quinquefolius*) is a good example of a plant popular in herbal medicine that has become quite rare because of over-collecting. It is currently listed as ‘threatened’ in the state of Michigan,” a status that offers some protection for the plant, he says.

University of Michigan students working on a geographic information systems (GIS) “grandfather tree” project several years ago mapped and measured over 50 oaks on the Matthaei property estimated to be more than 200 years old. One bur oak at Matthaei (*Quercus macrocarpa*, pictured at left) is 45 inches in diameter and approximately 225 years old, according to a method for measuring a tree’s age developed by the International Society of Arboriculture. By that estimation the oak would have already been 100 years old

in the late 1800s. It’s very likely that this oak and others on our lands here provided shelter and food to the passenger pigeon.

Parts of a Whole

As the late Burton Barnes, professor in the University of Michigan School of Natural Resources and Environment once observed, “we are parts dependent on the whole earth for our existence.”

The demise of the passenger pigeon is a graphic reminder of the drastic impacts humans can have on the environment, says Grese. “To know that the most plentiful bird species in North America and the one most associated with the oak forests and oak openings of southern Michigan could go extinct within 100 years is a humbling reminder of the need for conservation.”

As we become more aware of the rare plant and animal species found on the properties managed by Matthaei Botanical Gardens and Nichols Arboretum we are working hard to steward the unique habitats that contain them, Grese continues, so “creating a greater understanding of the threats rare species and regional ecosystems face is clearly something key for an arboretum and botanical garden like us.” 🌿

Pictured far left: A 225-year-old bur oak tree (*Quercus macrocarpa*) has lived on what is now the Matthaei Botanical Gardens since George Washington was president. This tree, which would have been 100 years old in the late nineteenth century, likely provided food and shelter for the passenger pigeon.

Center: A wood carving of a passenger pigeon by Mike Ford of Midland, Michigan. The carving is on display at the Chippewa Nature Center in Midland.

Exhibits & Resources

Museums and institutions on the U-M campus and elsewhere in Michigan are commemorating the 100th anniversary of the death of the last passenger pigeon with special exhibits and displays. In the botanical realm, for an immersive experience of some of the special spaces that protect or recreate the region’s rare or threatened habitats and ecosystems, such as prairies or the Great Lakes Gardens, visit Matthaei Botanical Gardens & Nichols Arboretum. For a map of some of our “grandfather” trees, visit mbgna.umich.edu. Following is a list of organizations featuring passenger pigeon exhibits. For a full list, visit passengerpigeon.org and click on Michigan.

Passenger pigeon exhibits:

Passenger Pigeon Exhibit: University of Michigan Museum of Natural History, Fourth Floor Gallery lsa.umich.edu/umnh/

Moving Targets: Passenger Pigeon Portrait Gallery, Enviro Art Gallery, University of Michigan School of Natural Resources and Environment, Dana Building snre.umich.edu/gallery

They Passed Like a Cloud: *Extinction and the Passenger Pigeon* Michigan State University Museum museum.msu.edu

Recommended reading:

A Feathered River Across the Sky, by Joel Greenberg (Bloomsbury)

Passenger Pigeons: Gone Forever, by Vic Eichler (Shantimira)

Online Resources:

passengerpigeon.org, an international effort to familiarize people with the history of the passenger pigeon and its extinction, raise awareness of how the issue of extinction is relevant to the 21st century, and support respectful relationships with other species.



PICTURED ABOVE, from the top:

Summer interns presenting their projects at the August 3 Open House. The special event highlighted interns' contributions to Matthaei-Nichols. Above, Tom Gaffield (left) talks to intern Esther D'Mello about her work on the Gaffield Children's Garden at Matthaei.

Students working on the Campus Farm brought smiles and a bounty of produce available for a donation. Above, Jake Kornfeld, Campus Farm manager, sits amid bushels of vegetables grown at the farm.

Madolyn Kaminski, president of the Herb Study Group, was on hand at the Open House to speak with visitors about her group's regular programming. Dozens of mission-related groups meet at the Arb and Gardens each year, providing mostly free educational programs that are open to the public.

Open House Showcases Intern Contributions

Several hundred members and visitors thronged Matthaei Botanical Gardens last August 3 during a special Open House designed to showcase student interns and their summer projects. The students gathered in the auditorium with their projects presented on posters.

Apart from the student presentations, the afternoon was packed with events. A company of Shakespeare in the Arb actors performed scenes from the bard on the commons under a warm August sun. Staff members David Michener, Mike Palmer, and Adrienne O'Brien led visitors on tours of the display gardens. The Ann Arbor Bonsai Society was on hand to answer questions about bonsai in the Bonsai Garden and on the terrace. Tables groaned under the weight of fresh produce from the Campus Farm. Volunteers pointed out the way to the events and kept visitors hydrated with plenty of lemonade and iced tea. In short, a successful event that really highlighted not only the invaluable contributions interns make to the mission of Matthaei Botanical Gardens & Nichols Arboretum but all the other great programming our organization offers.

Gap but a Wrinkle in Campus Farm's Growth

You can't get much better than "Kale to the victors!" as a rallying cry for the Campus Farm. Apart from its pun on the U-M fight song, the tag line reflects one of the farm's earliest aspirations: selling its produce to the University foodservice. This summer, farm management investigated what that might entail. One requirement was GAP certification (Good Agricultural Practices), a challenging and costly quality-control process. After a thorough investigation into the GAP process, however, "we are putting certification on the back burner," say Emily Canosa coordinator for the University of Michigan Sustainable Food Program (UMSFP).

Canosa explains that pursuing GAP was an amazing learning experience that resulted in the implementation of safe food handling and tracking procedures at the farm. "But upon consultation with our extension agent," she says, "we've realized that GAP certification is not a great fit for the size and goals of our operation at this time. Of course we'd love to see Campus Farm produce in the dining halls one day, so we'll revisit this process as time goes on," Canosa adds.

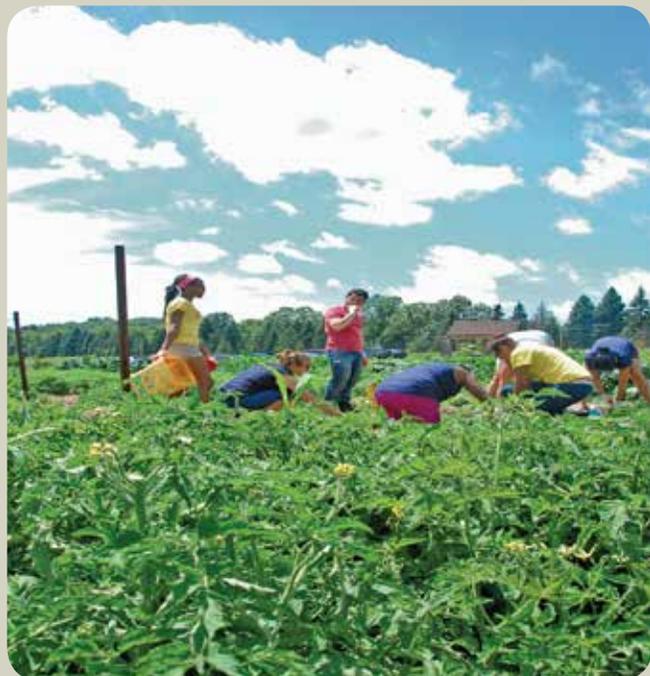
Even with GAP on hold the farm continues to expand its reach and operations. This year students at the farm worked to deepen community relationships that will only benefit future farm operations. Students in the UMBees group developed a honeybee sanctuary at the farm site this summer. The project includes plantings for pollinators and the construction of a bee house on site. The permaculture design team, another member group of UMSFP, secured a grant from the Planet Blue Student Innovation Fund and support from Matthaei-Nichols to design and implement a permaculture food forest adjacent to the farm.

The farm may not be stocking U-M's larders but local businesses are interested, says Canosa. "We've been collaborating with a local business to do a special "Leaders & Beets" fermentation with beets from the Campus Farm, and Michigan Dining is excited to explore stocking this item so it's available on campus in U-go's stores," she adds. Additionally, the farm has also begun conversations with several businesses that support local sourcing of their ingredients.

New Hires Energize Arb & Gardens

Even with big shoes to fill, Mike Kost and Yousef Rabhi hit the ground running last spring. Kost and Rabhi were recently hired to manage Matthaei-Nichols' native plant and volunteer programs. With their respective backgrounds in natural areas work and with city, county, and state agencies, they're creating a lot of excitement at the Arb and Gardens.

Kost replaces staffer Connie Crancer, who retired in May. Most recently, he served as the lead ecologist and a senior conservation scientist with Michigan Natural Features Inventory at Michigan State University Extension. There, he oversaw and conducted research to provide land managers with information



PICTURED ABOVE:

Student volunteers at work on the Campus Farm last summer. Farm managers had sought Good Agricultural Practices (GAP) certification for the farm so they can sell its produce to University of Michigan food-service. Even as farm managers discovered that GAP wasn't a good fit for the farm at this time, area businesses who support sourcing local ingredients are interested in purchasing the farm's produce.

Mike Kost (left) and **Yousef Rabhi** were hired last spring to fill the large shoes left by former staffers Connie Crancer and Tara Griffith. Kost, who last worked as the lead ecologist for Michigan Natural Features Inventory at Michigan State University, is our new native plants specialist. Rabhi, our volunteer coordinator, also serves as the Chair of the Washtenaw County Board of Commissioners and as a Washtenaw County Commissioner since 2011.

on managing native ecosystems and rare species. Kost is also the coauthor or author of more than 75 publications, including three books on the natural communities of Michigan.

Earlier in his career, Kost worked for The Morton Arboretum in Lisle, Illinois where he managed the adult natural history education program, taught courses in field ecology and monitoring, and oversaw stewardship of the Arboretum's natural areas. He has also worked for the University of Wisconsin-Extension and at the Koenen Land Preserve in Milwaukee.

Just as native plants play a key role in nature, volunteers contribute greatly to an organization's operational ecosystem. That's especially true for Matthaei-Nichols, where more than 1,400 volunteers logged nearly 19,000 hours in the last fiscal year alone. As the Washtenaw County Commissioner and former City of Ann Arbor Natural Areas Preservation Workday Coordinator, new volunteer manager Yousef Rabhi is no stranger to shepherding hundreds of volunteers through dozens of workdays. Rabhi replaces former volunteer manager Tara Griffith, who left in May.

Inspired by his years in pre-school volunteering for the Adopt-a-Stream program, Rabhi went on to be an early volunteer for the Buhr Park Children's Wet Meadow Project in Ann Arbor. While studying at the University of Michigan's Program in the Environment, he spent all five of his summer terms working at the Arb and Gardens as an intern. After graduating, Rabhi went to work with the City of Ann Arbor's Natural Area Preservation as the Workday Coordinator. He currently serves as the Chair of the Washtenaw County Board of Commissioners and has served as a Washtenaw County Commissioner since 2011.

Arb & Gardens Shines at Garden Conference

The American Public Garden Association's annual conference gives folks from gardens and arboreta all over North America an opportunity to network and share ideas and projects. A number of Matthaei-Nichols staff presented, including associate director Karen Sikkenga, membership manager Andy Sell, curator David Michener, and children's education coordinator Liz Glynn. Sikkenga, who is also the chair of the APGA's college and university section, conducted a conference section on the first-ever benchmark survey for university gardens. Nearly 50% of the 175 gardens invited to participate in the survey responded. The survey revealed that the top-three challenges facing college and university gardens are funding, staffing, and maintenance. Andy Sell, David Michener, and Sikkenga ran a session on Matthaei-Nichols' tribute program. The three talked about the program's depth and breadth, ease of use, substantive but user-friendly database, and how the program could be used as a model by other botanical gardens and arboreta.

"Overall we were surprised and pleased with how many college and university gardens attended the conference and the sections conducted by our staff, Sikkenga says. "I think it shows not only how important gardens connected to institutions of higher learning are but also their commitment to seeking out solutions to the many issues we all have in common."

Curator Michener Receives Award

Matthaei-Nichols curator Dr. David C. Michener received a Professional Citation at the June 2014 annual American Public Garden Association (APGA) meeting in Denver. The award "recognizes the significant achievements in public horticulture of an APGA member who has excelled in one of the disciplines generally associated with public gardens such as botany, horticulture, gardening, conservation, research, education, extension, development, or administration," according to the APGA. Considering David's active involvement in projects like the Peony Initiative, website, and database; our tribute program; and many other projects, the award is well deserved. Congratulations, David!



Blog Gives Interns a Virtual Voice

Physical evidence of our interns' efforts is everywhere here, from gardens to the Campus Farm to children's programming. Now interns are leaving their digital footprint too, with posts to *Earth Words*, the Matthaei-Nichols blog. Many interns wrote about the projects they worked on, personal connections to their summer work, or important changes they made to some of our spaces and programming. Check out the posts at mbgna.blogspot.com.

Letters & Leaves

This winter's conservatory exhibit showcases nature's profound influence on and inspiration for poetry from around the world. Summer intern Andrew Miller, working with staffer Catriona Mortell-Windecker, contributed extensively to the exhibit, researching poetry and collaborating with U-M faculty and students for suggestions and contributions, with poems featured in the conservatory at Matthaei and in a self-guided tour at the Arb. The link between nature and poetry is "eternal and mutually beneficial," Miller observes. "Poets will always be moved by the natural world's beautiful diversity, readers will be moved by poetry, and those stimulated readers will engage with nature in a new, productive way." The exhibit includes U-M student, alumni, and faculty poetry submissions, a haiku contest, children's poetry writing activities, seasonal flower display, display of evergreen trees decorated with exhibit-themed items, and more. November 29, 2014–January 4, 2015.

The Agony and the Ecstasy of the Agave

Last April a volunteer with the Southeast Michigan Cactus and Succulent Society noticed an unusual stalk poking out from the leaves of the variegated American agave (*Agave americana*) in the conservatory at Matthaei. Turns out it was a flower stalk. Pretty soon it was growing six inches a day. Finally, around the first week of July, the agave's flowers began to open.

We've seen agaves bloom in the past here but no others have quite captured the public's imagination—or the media's attention—like this one. Part of the appeal was the agave's age when it finally bloomed. In nature the American agave usually flowers at 20 years or so. Collected in Mexico in 1934 by graduate student Alfred Whiting, our 80-year-old plant for some reason picked 2014 as The Year to Bloom. The fact that the parent plant would die after blooming only added to the drama. Extensively covered in local, national, and international media, including USA Today, Smithsonian.com, Associated Press, and NPR's Morning Edition, the agave drew thousands of visitors to the Gardens. So many that visitor numbers and total revenue for July 2014 at the parking kiosks, Garden Store, and donation box were double those from the previous year.

As of this writing we're praying for seeds and maybe a few pups—plantlets that are genetically identical to the parent—to appear. And one person even wants a part of the stalk to make a didgeridoo. Stay tuned for the final story of the great American agave bloom of 2014.

Transitions

This year brought major staff changes to the Arb & Gardens. Two veteran staffers—Connie Crancer and Tara Griffith—left last spring, while Allison Correll, the new events coordinator, came on board in March. Replacing Connie as our resident native plants specialist is Mike Kost. Tara's position as volunteer coordinator was filled by Yousef Rabhi. Best wishes to Tara and Connie, and welcome, Allison, Mike, and Yousef.



PICTURED, ABOVE:

Matthaei-Nichols curator David Michener accepted the American Public Gardens' (APGA) Professional Citation award at last June's conference in Denver. Pictured from left are David Price, President, Bok Towers Gardens in Lake Wales, Florida, & Chair of the 2014 APGA Awards Committee; Casey Sclar, Executive Director, American Public Gardens Association; David Michener; and Gwen Stauffer, Executive Director, Ganna Walska Lotusland in Santa Barbara, California.

The American agave (*Agave americana*) that bloomed in the conservatory over the summer turned out to be an international celebrity featured in news media around the world. As the agave began to bloom we visited the arid house daily with a 12-foot ladder to document its progress. Above, a staff member snaps another view of the agave. Water on the conservatory floor is agave-flower nectar, not rain. At the height of bloom the flowers dripped copious nectar for days, while hummingbirds, bees, and other pollinators visited the flowers.

Free, Self-Guided Programs

Self-Guided Adventure Booklets

Check out one of our new self-guided adventure booklets (designed by our student summer interns) for a day of engaged activity and learning. Explore the connection between climate change and North American trees, share your experiences in the Sharing Nature Journal, search for plants and animals with the native species scavenger hunt, or travel through time to discover how humans have interacted with nature. Booklets available in the Visitor Center, along with adventure backpacks.

Sat. Sept. 20, 10 am-noon

Autumn Adventure

Autumn officially starts on September 23. Enjoy a self-guided hike to look for early autumn flowers, seeds, and signs that fall is here. Families can choose from three new self-guided booklets to explore the trails and the Gaffield Children's Garden. Free; drop in; no registration required.



Homemade Heritage Programs

The change of season is a time to give thanks for the gifts of summer and to look forward to cooler weather and autumn's bounty. From cranberries to scarecrows to jack-o'-lanterns and holiday trees, the Homemade Heritage programs celebrate our creative traditions. For more information call **734.647.7600** or visit our website **mbgna.umich.edu**. All programs held at Matthaei Botanical Gardens unless otherwise noted.

October 4, 10 am-noon

Harvest Spooktacular

Decorate a mini-pumpkin to take home, and make your own granola bars using native grains such as quinoa, amaranth, and sunflower seeds. Plus, find out what different sweeteners you can use in our native American sweetener tasting featuring honey and agave and maple syrups. \$8.00 per child includes activities and materials. Wear your costumes, too! **14-YE-18**

Sat., November 15, 10 am-noon

Kids Are Chefs, Too! - Warm Winter Spices

Cooler days put us in the mood for warming food and drinks. Taste exotic spices that are part of cold weather recipes, and prepare a spice mix to take home. Featuring plants from around the world that grow in our Conservatory. \$8.00 per child includes activities and materials. **14-YE-19**



Sat., December 6, 10-12

Wonders of Winter

Wintertime is approaching soon. Days are shorter, nights are longer and filled with twinkling stars in the winter sky. Kids will listen to winter-themed stories, create and decorate a book of their own poems, and make a wreath of evergreens to brighten their home. \$10.00 per child includes activities and materials. **14-YE-20**

Sat., Dec. 13, 10 am-noon

In collaboration with Girl Scouts Heart of Michigan

Wonders of Winter

A second Wonders of Winter featuring the same programming as above without the poetry book. **Note:** *This event is listed in "The Source" scout program guide. Please register for this program only through Girl Scouts Heart of Michigan. For more information and to register, visit the Heart of Michigan website: gshom.org. (Matthaei-Nichols family-tree membership passes do not apply.)*

Upgrade to A Family Tree Membership . . .

. . . and receive six youth and family free passes for fee-based classes. You also get \$65 off Matthaei Birthday Party programs. A great value at \$75. Visit our website for details: **mbgna.umich.edu**

All programs and classes unless noted are free, open to all, and take place at Matthaei Botanical Gardens. For complete program information visit our online calendar at mbgna.umich.edu or the “Come Learn” section of our website.

SEPTEMBER

Sat., Sept. 6, 9 am, Nichols Arboretum

4th Annual Run for the Arb

A family-friendly 5K run/walk through the Arboretum. All proceeds support the Arb & Gardens. Preregistration \$25/members: \$20. Dogs welcome, too! Register Fido for \$5. Participants receive a Run for the Arb t-shirt; space limited! Register: mbgna.umich.edu.

Mon., Sept. 8, 7 pm

Harvesting Seeds and Preserving Herbs

Presented by Herb Study Group

Tips on harvesting seeds from herb plants and on preserving your herbal harvest.

Plus, recipes using herbs.

Info: m.kaminski@comcast.net.

Tues., Sept. 9, 6:30 pm

Ann Arbor Backyard Beekeepers

Open to all beekeepers, bee enthusiasts, and those wanting to learn more about pollinators. Programs begin with an informal question/answer period at 6:30, followed by a formal presentation of a bee related topic at 7. Discussion topics include honeybee management, care, and production, as well as work to protect and enhance our local bee population.

Mon., Sept. 15, 10 am–11:30 am

Catching Your Breath

Presented by Mich. Alzheimer's Disease Center

A free monthly program for caregivers of adults with memory loss. Designed for learning skills for continued health and well-being. Info and to register: **734.936.8803**. Also Nov. 12, Dec. 15.

Mon., Sept. 15, 7:30 pm

Plant/Animal Interactions in New Zealand

Presented by Michigan Botanical Club

Presentation by Dr. Cathy Bach.

Tues., Sept. 16, 7:30 pm

Don't Frack Up Our Future

Presented by Sierra Club Huron Valley Group

Craig Brainard talks about fracking and the pollution threat it poses to Michigan's fresh water. Craig's passion for protecting our water, land, and air has led to him helping with the formation of the new South West Michigan Group.

Wed., Sept. 17, 7:30 pm

Birding for Conservation

Presented by Washtenaw Audubon Society

Join Tom Funke for a program on how you can contribute to bird conservation while birding. Tom is the conservation director for Michigan Audubon and the resident manager of the Otis Farm Bird Sanctuary near Hastings, Michigan.

Sat., Sept. 20, 11 am

Vanda Alliance Species Test

Presented by Great Lakes Judging (Orchids)

Lynn O'Shaughnessy demonstrates how to test your knowledge of *Vanda* orchid species commonly used in hybridizing. Plus, Rob Halgren explores recent advances in *Phragmipedium besseae* and its progeny.

Sat., Sept. 20, 1 pm

Bromeliads, the Awesome Houseplants

Presented by SE Michigan Bromeliad Society

A PowerPoint presentation by Penrith Goff introduces the amazing bromeliad (pine-apple) family, its diversity of form and color, its strategies for survival, and its vital role in the ecology of its habitat. Care, propagation, and display also discussed.

Sun., Sept. 21, 1 pm

Yes, You Can Grow Bromeliads in Michigan

Presented by SE Michigan Bromeliad Society

Paul Wingert discusses tips on choosing the bromeliads that best suit your needs: the easiest, the prickliest, the ones that keep their color during winter gloom, the ones that bloom in winter, and those that make a stunning accent in the summer garden. Discussion of potting mix, fertilizing, watering, plant propagation and pest control.

OCTOBER

Wed. & Thurs., Oct. 1–2, 8:30 am–4 pm

Landscape Design School Course III

Presented by Michigan Garden Clubs

In this course students will learn about landscape design accessories; regional expressions; landscape architecture history; introduction to urban design; and more. \$50.00 for 2 day registration; \$25.00 for 1 day (both include lunch). Registration form available at michigangardenclubs.org/education, or contact marypulick@gmail.com.

Sat. & Sun., Oct. 4–5, 10:30 am–4:30 pm

Fall Native Plant Sale

Featuring hardy, water-resilient native plants that also attract beneficial insects and birds. Members receive a discount on purchases.

Sun., Oct. 5, 2 pm, Detroit Institute of Arts

The Artist's Garden: American Impressionism and the Garden Movement, 1887–1920

Anna O. Marley, Curator of Historical American Art, Pennsylvania Academy of the Fine Arts, discusses the intertwining story of American artists, Impressionism, and the growing popularity of gardening at the turn of the 20th century. **Hosted by Matthaei-Nichols curator David Michener.** \$5 discounted admission for Matthaei-Nichols members.

Mon., Oct. 6–Mon., Nov. 17

Mindfulness-Based Dementia Care

Presented by Mich. Alzheimer's Disease Center

A new, free, 7-week program specifically designed for family caregivers of persons with dementia. Learn how the practice of mindfulness can help you cope with the challenges and stresses of dementia care, and also greatly improve the experience of the person in your care. For class times or to register call U-M Memory Connection at **734.936.8803**.

Mon., Oct. 6, 7 pm

Herb Recipe Swap

Presented by Herb Study Group

Bring your favorite herb recipe to share. Plus, information on best practices for extending the growing season for herbs. Info: m.kaminski@comcast.net.

Tues., Oct. 14, 6:30 pm

Ann Arbor Backyard Beekeepers

Open to all beekeepers and those wanting to learn more about pollinators. Programs begin with an informal Q&A at 6:30, followed by a presentation of a bee-related topic such as honeybee management, care, and production, as well as work to protect and enhance our local bee population.

Wed., Oct. 15, 7:30 pm

Impacts of Ecosystem Imbalance on Birds

Presented by Washtenaw Audubon Society

Sat., Oct. 18, 10 am–4 pm

African Violet Display and Sale

Presented by MI State African Violet Society

A display and sale of *Streptocarpus* and other gesneriads. Free seminar at 11:30 am. Experts on hand all day to answer questions and provide tips for better blooms.

Sat., Oct. 18, 11 am

Recent Cattleya Awards

Presented by Great Lakes Judging (Orchids)

View and discuss recent awards in the *Cattleya* group with Richard Bennett. Plus, Dave Miller explores the beautiful “butterfly” orchids belonging to the genus *Psychopsis*—a charismatic group of four species related to *Oncidium*.

Mon., Oct. 20, 7:30 pm

Biodiversity: Why We Need it, How to Advocate for It

Presented by Michigan Botanical Club and Wild Ones Ann Arbor

A presentation by Dr. Brad Cardinale.

Tues., Oct. 21, 7:30 pm

The Greened House

Presented by Sierra Club Huron Valley Group
HGTV host Jeff Wilson tells the story of his family's Deep Energy Retrofit (DER) of their 70 year old home to slash their energy bills by 85% while making their home a more comfortable and healthier place to live.

Wed., Oct. 22, 7 pm

Bonsai Tool Care and Techniques

Presented by Ann Arbor Bonsai Society
Long-time bonsai expert Vance Hanna discusses and demonstrates best practices for bonsai tool care and proper techniques to sharpen and maintain bonsai cutting tools. Arrive by 6:30 pm to speak with members. Info: annarborbonsaisociety.org.

Sun., Oct. 26, afternoon

Caregiver Wellness Day

Presented by Mich. Alzheimer's Disease Center
A free afternoon of fun and renewing wellness activities for family caregivers of adults living with memory loss. Please call to register and for program time: **734.936.8803**.

NOVEMBER

Sun., Nov. 2, 10 am-2 pm

The Top Ten

Presented by Hosta Hybridizer Group
Rick Goodenough, long-time member of the American Hosta Society, gives an illustrated presentation of his top-ten hosta-related list, including his picks for top-ten hostas, hosta introductions, companion trees and woodlanders, and more. Bring a lunch or dish to pass with utensils.

Mon., Nov. 3, 7 pm

Herb Study Group

Regular programs about herb use, history, and lore that may also offer, for example, free herbal samples, recipes, refreshments, and more. Info: m.kaminski@comcast.net.

Tues., Nov. 11, 6:30 pm

Ann Arbor Backyard Beekeepers

Open to all beekeepers and those wanting to learn more about pollinators. Programs begin with an informal Q&A at 6:30, followed by a presentation of a bee-related topic such as honeybee management, care, and production, as well as work to protect and enhance our local bee population.

Wed., Nov. 12, 6-7:30 pm

Catching Your Breath

Presented by Mich. Alzheimer's Disease Center
See Sept. 15 listing.

Wed., Nov. 12, 6:45 pm

Annual Potluck and Deep Roots Award

Presented by Wild Ones Ann Arbor
A harvest celebration of ideas and foods and presentation of the Bob Grese Deep Roots award given to a Wild Ones member in recognition of outstanding stewardship. Plus, show and tell and slide presentation. Bring a flash drive with slides.

Sat., Nov. 15, 2 pm

The Awesome Air Plants

Presented by SE Michigan Bromeliad Society
A PowerPoint introduction to the *Tillandsias*, the largest and most extremely evolved bromeliad family. How do they manage to survive and flourish without roots under such extreme conditions? Discussion will center on answers to this question and the implications for successful culture of these bizarre plants.

Mon., Nov. 17, 7:30 pm

Human Activities Changed the Hydrology: Did that Cause the Buckthorn Invasion at Irwin Prairie?

Presented by Michigan Botanical Club
A presentation by Dr. Todd Crail.

Tues., Nov. 18, 7:30 pm

Holding on to Michigan's Beauty

Presented by Sierra Club Huron Valley Group
Garrett Johnson talks about the preservation successes of the Michigan Nature Association, its efforts to provide habitat for rare, threatened and endangered species, and the benefits to all of Michigan's residents, including people, plants, and creatures.

Wed., Nov. 19, 7:30 pm

Meteorology and Birding

Presented by Washtenaw Audubon Society
Join Sarah Toner for a program on how to use weather data for maximum birding success. Sarah is a senior at Community High, a two-time winner of the American Birding Association's Young Birder of the Year award in the writing contest, and founded the Michigan Young Birders Club.

Sat., Nov. 29-Sun., Jan. 4

Winter Exhibit - Matthaei Botanical Gardens

Letters & Leaves

Nature as Inspiration for Poetry

An exhibit showcasing nature's profound influence on and inspiration for poetry from around the world. Poems featured in the conservatory at Matthaei and in a self-guided tour at the Arb. Exhibit includes U-M student poetry submissions, poetry written by U-M alums and present and former faculty, haiku

contest, children's poetry writing activities, seasonal flower display, display of evergreen trees decorated with exhibit-themed items, and more.

DECEMBER

Tues., Dec. 9, 6:30 pm

Ann Arbor Backyard Beekeepers

Open to all beekeepers and those wanting to learn more about pollinators. Programs begin with an informal question/answer period at 6:30, followed by a formal presentation of a bee related topic at 7. Discussion topics include honeybee management, care, and production, as well as work to protect and enhance our local bee population.

Sat., Dec. 13, 10 am

Holiday Greens Workshop

Presented by Ann Arbor Garden Club
Create your own wreath or bring a vase to make a greens arrangement at this annual greens workshop. Materials for a wreath or arrangement provided. Bring your own clippers to trim greens. Brunch follows. \$15 per person fee includes materials. Presented by the Ann Arbor Garden Club. Space limited; reservations recommended. Information and reservations through Ann Arbor Garden Club only: dlooker444@hotmail.com.

Mon., Dec. 15, 10-11:30 am

Catching Your Breath

Presented by Mich. Alzheimer's Disease Center
See Sept. 15 listing.

Tues., Dec. 16, 7:30 pm

Tales and Travels from Around the Globe

Presented by Sierra Club Huron Valley Group
Share and inspire us with your travels for this annual HVG program. Send a PowerPoint presentation or 10-15 digital photos to Ed Steinman (ighthawkpilot@gmail.com) and tell us about your adventures, near and far.

Sat., Dec. 20, 11 am

Holiday Orchid Bazaar

Presented by Great Lakes Judging (Orchids)
The Great Lakes Judging Center hosts lunch and a live auction of orchids and orchid-related items to help support the center's efforts. All welcome. Bring an orchid to be submitted for judging, or just observe the judging process (1 pm).

NOTE: Occasionally, program dates or topics change after the newsletter is printed. Call ahead (734.647.7600), or visit our website (mbgna.umich.edu) to check on the status of a program.

Get Involved—Volunteer! Fall 2014

Fall is the perfect time to dig into some great volunteer opportunities at Matthaei-Nichols. Contact the Volunteer Coordinator at 734.647.8528 or yorabbi@umich.edu for more information.



MATTHAEI BOTANICAL GARDENS
AND NICHOLS ARBORETUM
UNIVERSITY OF MICHIGAN

Visit our website
for more information:
mbgna.umich.edu

Special Events

Native Plant Sale & Festival

Sat. & Sun., Oct. 4 & 5, 10 am-4:30 pm

A sale of native woody plants and shrubs. Volunteers will help with set up, greeting and directing visitors, and selling plants. Other positions TBA.



Left: Sue Taylor (right) helps a customer out with her plant purchase.

Right: Help from Beta Theta Pi fraternity student volunteers at last year's Run for the Arb made a huge difference.

Below: Matthaei-Nichols Natural Areas Manager Jeff Plakke (L) conducts a prescribed burn with a volunteer in a prairie restoration near Dixboro Rd at Matthaei Botanical Gardens.



Run for the Arb

Sat., Sept. 6, 9 am, Nichols Arboretum

Join us for the 3rd Annual Run for the Arb, a special fundraising run/walk/stroll through the trails of Nichols Arboretum. All proceeds benefit Matthaei Botanical Gardens & Nichols Arboretum. Volunteers help out with registration, way-finding, refreshments and finish line.

Trainings

Prescribed Burn Crew Training

Fri., Oct. 10, 1-3 pm

Matthaei Botanical Gardens

If you enjoy the natural areas at Matthaei-Nichols and would like to help maintain them this is a great service learning opportunity. Volunteers are on call for weekday, afternoon burns (1-4 pm) during the spring and fall. The training will provide basic information about the use of prescribed fire as a restoration tool and the basic volunteer duties. A tour of past burn sites and hands-on demonstration will be provided, weather permitting.

Pre-registration required.

Conservatory Ambassador Training two options

Sat., Oct. 11, 9 am-noon

Wed., Oct. 15, 1-4 pm

Matthaei Botanical Gardens

After the blossoming glory of the display gardens has faded our visitors can find a welcome retreat in the Conservatory. Ambassadors greet & guide visitors to points of interest and informal learning opportunities. This training will introduce volunteers to the Visitor Services department and cover the basics about the tropical, temperate, and arid biomes and the many fascinating plants that are found in each. Ambassadors commit to two, 3-hour shifts per month and attend ongoing educational sessions. **Phone interview and pre-registration is required.**





Nichols collection as we do,” Jerry says. “Now that the trees themselves have a permanent home, the next natural step is a commitment to caring for them, so we hope to inspire others to help make that happen. A matching challenge is a great way to double that commitment.”

The endowment specifically funds the care and maintenance of the collection. The endowment goal is \$800,000, which will fund a half-time horticulture specialist, materials, and work with leading bonsai practitioners on bonsai artistry and health. Currently we’ve raised nearly 25% of that goal, about \$167,000. To make a donation to this special bonsai challenge visit our website, Isa.umich.edu/mbg/bonsaichallenge, or call our director of development Gayle Steiner: **734.647.7847**.

Above: Jerry and Rhona Meislik (left) stand with Matthaei-Nichols director Bob Grese and Jack Wikle moments after the ribbon cutting at last year’s opening of the Bonsai & Penjing Garden at Matthaei. The Meisliks seeded the endowment fund for the garden and are inspiring others to continue the endowment funding effort with a special matching challenge.

Bonsai Challenge Matches Dollar for Dollar

Donors Jerry and Rhona Meislik are well-acquainted with the recipe for bonsai success. First, build a permanent home for our bonsai and penjing collection. (Done; the garden opened last year at Matthaei.) Then, because this living art form needs continual care, take steps to protect the health and beauty of the collection—a dedicated effort requiring significant funding.

Ardent supporters of our collection and bonsai aficionados themselves, the Meisliks announced a dollar-for-dollar match challenge at the June 2014 Ann Arbor Bonsai Society program. The challenge will fund an endowment for the ongoing care of the bonsai and penjing collection at Matthaei Botanical Gardens. The Meisliks, who already seeded the bonsai garden endowment last year prior to the garden’s opening, will give up to \$10,000 to match gifts of at least \$500 that are given or pledged before November 25, 2014. “Our dream is that others will feel as passionate about the Matthaei-



Thuja occidentalis

Right: An arborvitae or northern white cedar (*Thuja occidentalis*) in the Matthaei-Nichols collection. Bonsai artist Jack Wikle confirms that the tree is over 100 years old. It takes a lot of care to keep a bonsai tree like this thriving. **Below:** Working on the Campus Farm last summer inspired intern Lello Guluma, who found that the farm helped her make a connection with her Ethiopian heritage.

2014 Friends 40th Anniversary Member Campaign Snapshot



In celebration of the 40th anniversary of the *Friends* membership program we launched a major membership campaign to draw attention to the importance of member dollars and what they support.

Campaign Goal: More Members than Ever

One campaign target: significantly grow our membership numbers and increase commitments

from our current members. Some numbers:

- By the end of fiscal year 2014 (June 30) 2,670 members appeared on our roster compared to FY 2013 with 2,051. That’s a 30% increase in memberships!
- We also encouraged members to upgrade to higher levels of membership. Nearly 200 of you responded by upgrading your memberships.
- As you’d expect, revenue from memberships soared: FY ’13 to ’14 revenue saw a 21% increase.

Way to go! With four months left in the campaign, there’s plenty of room for even more. Thanks to all of our members for making our campaign thus far so successful.

The Membership-Intern Connection

Member dollars directly support our student summer intern program. This summer we hired 32 full-time student interns to work in nearly every one of our departments. Of those interns, 11 are funded by current member dollars. One of those interns is Lello Guluma, who is working on the Campus Farm this year. Lello traces her heritage to Ethiopia, where her grandfather owns land that he farms. Working at the Campus Farm, says Lello, has inspired her interest in sustainability and organic farming. “When I learn about another method of organic growing or natural pest control, I think of how my relatives abroad could benefit,” she says. “I am thankful for the opportunity to work at the Campus Farm and have learned more than I could have imagined.”



December 2: Giving Tuesday

This holiday season, skip the crowds, lines, and digital shopping carts for a chance to create an opportunity, not just give a thing. Giving Tuesday—the first Tuesday after Thanksgiving—is a day for giving back, and one of the best ways to give thanks by supporting Matthaei-Nichols.

Looking for ideas? • Purchase a gift membership to Matthaei Botanical Gardens & Nichols Arboretum for a friend or family member. • Upgrade your membership to

the next level. • Renew your membership. • Round up the amount you give to the next multiple of 10. • Join at the \$100 Sustaining level, or add another zero and get inside the Director’s Circle. Whatever you give, your dollars create opportunities for us to hire student summer interns, bring you great programming like Shakespeare in the Arb, celebrate the season in our conservatory exhibits, and a lot more. It’s easy. Go online to Isa.umich.edu/mbg/give/ or call **734.647.7600**.



MATTHAEI BOTANICAL GARDENS
AND NICHOLS ARBORETUM
UNIVERSITY OF MICHIGAN

caring for nature, enriching life

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friends newsletter
fall 2014

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