

# THE FRINGED GENTIAN™

A PUBLICATION OF FRIENDS OF THE WILD FLOWER GARDEN, INC.

## Caught on Camera! The Busy Life of Garden Inhabitants After Dark

By Elise Jacobson

For at least twenty years, Garden visitors and staff have noticed a large matted down patch of sweet flag plants (*Acorus americanus*) in the wetland garden.

The cause of the plants being matted down has remained a mystery and this summer Garden field staff and the Mississippi River Green Team youth crew members enjoyed coming up with ideas about what kinds of creatures could be disturbing the plants. One morning, while working in the upland garden, staff caught a glimpse of a large, dark animal scurrying across the path nearby. We did not get a good enough look to identify it, but we let our imaginations run wild and our guesses ranged from an otter to a bear cub (both very unlikely). Wondering if this could be the unknown creature causing the matting down of plants in the wetland garden, we decided to look for some answers. Over the next several months, we set up a wildlife camera in different locations and had the chance to see just how many animals emerge to explore the Garden after dark.

The camera captured the surprised look of a robin peering directly into the camera; a chipmunk with its cheeks stuffed full of leaves; and a tiny opossum who resurfaced in new locations every few weeks. The most notable –and likeliest culprits of the flattened sweet flag—were a band of at least five raccoons that traveled around the Garden together and were even caught on camera knocking over a “Stay on Trail” sign! No matter where we chose to put the camera for the night, these mischievous raccoons would find their way into the frame.



While we are still unsure why exactly the sweet flag plants are matted down year after year, we have discovered just how busy the Garden gets after the gates close. This quiet oasis has a bustling nightlife- and who knows which critters we'll capture on camera next! ♦



Elise Jacobson is a Natural Resources Specialist at the Garden. Photos and article appear courtesy of the Minneapolis Park & Recreation Board.

History notes: In 2002, while a crew of the Wildlife Research Center was night tracking deer they counted over 50 raccoons in the Garden. Other Garden animals include Red Fox, Cottontail, Red & Gray Squirrel, Eastern Chipmunk, Eastern Mole, Meadow Vole, Short-tailed Shrew, Deer Mouse, House Mouse and the occasional White-tailed Deer.

“To the attentive eye, each moment of the year has its own beauty” - Ralph Waldo Emerson





## President's Greeting

By Jennifer Olson

**A**nother end of a Garden season that began with masks, one-way trails, staggered entry times and social distancing requirements and evolved to no restrictions. I hope you have enjoyed the seasonal transformations of each Garden Trail.

In the late summer, the Upland Garden is my favorite with the contrasting goldenrods and the purple asters. I was excited to read Robin Wall Kimmerer's chapter of "Asters and Goldenrod" in her book, *Braiding Sweetgrass*. At her freshman intake interview, she admitted wanting to study botany to learn why asters and goldenrod looked so beautiful together. Kimmerer was told that was not science. Her childhood in the woods was of relationships, where plants were teachers and companions while at the University, plants were objects. As a new PhD, she listened to a Navajo woman who could name the plants of her valley, where it lived, when it bloomed, who it lived near, who ate it, what nest used its fibers and the kind of medicine it offered. Kimmerer's new insight was combining the Indigenous ways of knowing and her academic book learning. The Indigenous people's knowledge is gained through four aspects of our being: mind, body, emotion, and spirit while science uses mind and possibly body. To the eyes of bees and humans, goldenrods and asters appear similar. However as complementary gold and purple flowers, they receive more pollinator visits than if they were growing alone. Kimmerer is able to merge science and beauty.

Our 2021 Annual Membership Meeting again was held by Zoom, with more members attending than in previous years. Author and biologist, John Moriarty engaged us with Minnesota's uniqueness, the center of North America with 3 ecosystems: prairie tallgrass to the south and west, the deciduous forests extending to the east and the spruce-fir forests to the east and north. The fragmentation of these habitats with expansion of farming, industry and population growth plus climate change will be our challenge. His three most recent books are available on our website. I hope more of you can join us next year for another speaker forum. Let me know of a speaker you would want to hear: [fern@friendsofeloisebutler.org](mailto:fern@friendsofeloisebutler.org)

The Friends' Board voted to raise membership fees, the first in more than a decade. Starting in 2022, basic membership will be \$25. Your membership dues are used to support the Garden with plantings and special projects. Higher levels of membership are available for those who can give more and there is the opportunity to support the Garden through gifts honoring friends and family.

The members voted at the Annual Membership Meeting for the 2000-2021 Friends' Board of Directors to continue for 2021-2022.

I hope you were able to catch the last of the blooms - Witch Hazel.  
May The Garden Be With You ❖

Jennifer Olson



### Exploding Seeds

"During our first September at Trail Wood I brought home from the North Woods a branch of witch hazel bearing several clusters of seed capsules. Late that night I was awakened by sharp rapping or striking sounds repeated again and again. The next morning I found that the capsules had opened and pressure from within had shot the seeds out as an orange pip is propelled when squeezed between a thumb and forefinger. They lay scattered over the floor of my study where they had fallen after striking the walls. On occasion such seeds are hurled through the air as far as forty feet. Just such an experience as mine is recorded by Henry Thoreau in the twelfth volume of his *Journal*. The date of his entry was September 21, 1859. Thus 100 years later, in the same month of autumn, history had repeated itself at Trail Wood." Edwin Way Teale, from *A Naturalist Buys an Old Farm*❖

Photos by G D Bebeau



# Garden Notes

## Curator's Update by Susan Wilkins



As I am writing this note, autumn is in full swing at the Wildflower Garden. The temperatures just dropped after a long spell of mild weather and the leaves of vines, shrubs, trees, wildflowers, ferns, really anything that was once green, is changing before our eyes.

The asters are nearly done flowering and a few sweet coneflower blossoms remain. Sugar maple leaves are turning fiery hues of red and festive shades of orange and the tamaracks are starting to deepen into a golden brown this year. The witch hazel has begun to flower with its spiderly yellow blooms, and the eastern wahoo fruits, a sure sign of deep autumn, are still ripening and getting ready to burst open in November most likely. I love these days of mid-October as the progression of the changing season picks up its pace and still has plenty of botanical bonuses to delight us with in the days ahead.

It's been another year of sharing the beauty and joy of the Garden in many familiar and also adaptive ways during the ongoing pandemic. Operating the Garden over these past two seasons has required incredible flexibility on the part of staff as we've been nearly constantly adapting and developing strategies that allow us to operate safely while engaging visitors with nature-filled experiences and programming.

Garden Staff did an amazing job of creating activities for the Wirth Beach Nature Station that allowed for creative learning and enjoyment while meeting social distancing requirements at Wirth Beach. This is no small feat and over 2,370 kids and adults were able to enjoy nature-based activities at Wirth Beach as a result of these program development and engagement efforts.

We also started reintroducing several Garden programs in July, with an overwhelming response from the community! Week after week, Garden Story Time, Early Birders, and a suite of engaging evening programs like the Illuminated Trails tour and the Glow-in the Night Hike, drew an average of about 20 people per program. The Illuminated Trails evening tour was attended by 65 people, wow! The great response to these program offerings is a testament to how much people love learning about and exploring nature together in fun and engaging ways.



Garden Staff also developed "pop-up" programs on a variety of Garden-themed topics and staffed these sessions out on popular trails several times a week later in the season. Visitors seemed to enjoy these staff-curated programs and we look forward to offering more of these in future seasons. We are already busy planning for the 2022 season and look forward to seeing you out on the trails at the Garden in April.

May the forthcoming winter season be one of replenishment and beauty and full of many nourishing nature-filled moments for you and yours. Enjoy winter; and, as needed, think spring! ❖



Tamaracks in Autumn colors. Photo G. D. Bebeau



## Get to Know Our Region Better by Candy Bartol



Do the words “Field Guide” get you remembering those famous Field Guide of Birds by Robert Tory Peterson you used to identify the birds in your local area?

What about that flower field guide you poured over for hours trying to memorize what to look for outside? Maybe you picked up one identifying sea shells before you’d ever seen the Atlanta or Pacific in person. It’s likely we’ve all thumbed through field guides or taken one along on that most memorable of vacations.

Thanks to author John J. Moriarty and photographer Siah L. St. Clair, we have a Field Guide set close to home, *A Field Guide to the Natural World of the Twin Cities*. All of their selections are designed for learning about places within 40 miles of Minneapolis or St. Paul and located in the seven county area, perfect for taking nice day trips or short vacations close to home.

The Friends of the Wild Flower Garden were so very pleased to have the author, John J. Moriarty, present at our Annual Members Meeting on September 19, 2021. We really encourage members and other interested persons to locate a copy of this book, one title he has authored, or in the case of *Minnesota’s Natural Heritage*, an updated collaboration with Susan M. Galatowitsch and Rebecca A. Montgomery to John Tester’s 1995 work a significant 25 years after it originally appeared. According to Mark Seeley, local climatologist and meteorologist, the updated version makes clear that changes in Minnesota have been noticeable from lakes and rivers to landscapes like forests and prairies.

To purchase Moriarty’s books through the Friends of the Wild Flower Garden, go to the Friends Website to order signed copies until December 31, 2021. Right on the home page find John Moriarty Books; click on the link to order.



We’d like to give you a bit of a feel for Moriarty’s books as represented by the collaborators’ credentials on *A Field Guide to the Natural World of the Twin Cities*.

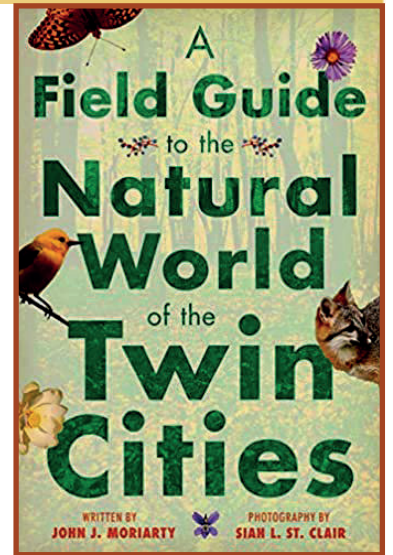
Its two collaborators possess some pretty specific local credentials that make them perfect for compiling this Field Guide, Moriarty as senior manager of wildlife for the Three Rivers Park District with St. Clair being the former director of Springbrook Nature Center in Fridley as well as serving on the Board of Directors of the Audubon Chapter in Minneapolis.

Moriarty takes on the written portion including a section about animals typically found in prairies or wetlands, for example. St. Clair adds photographs of animals and provides detailed maps throughout the book.

This Field Guide includes a comprehensive table of contents, an inclusive index, and lists of resources, both print and online. In the main parts of the book the reader will find two pages per place, one a map page followed by an information page explaining in brief what to see on this visit or just to learn about each site of this type. The two-page descriptions are divided into larger categories like savannas or wetlands followed by basic information about animals that frequent this type of landscape. Within one page for each animal the reader is also treated to beautiful colored pictures captured by St. Clair.

The 412 pages of *A Field Guide to the Natural World of the Twin Cities* really amount to several guides rolled into one and truly show what rich environments are accessible so close to home, both well known like the Garden and ones you might never have heard of before. ❖

Candy Bartol is a Friends member and Director.  
Animal photos of Woodchuck, Deer and  
Raccoon - Friends of the Wild Flower Garden





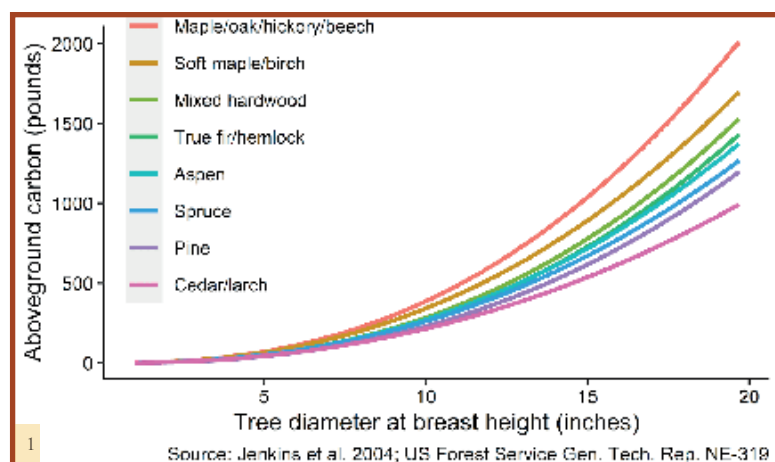
# Our Oak Trees -Will Their Dominance Last?



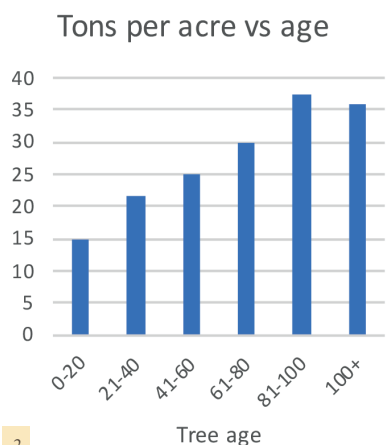
Oaks, concentrated in a single genus, *Quercus*, make up more forest tree biomass than any other woody plant genus in North America and Mexico.

There are over 400 known species worldwide today.<sup>(1)</sup> When did they become so dominant and what will happen to them as the climate warms? Were they in Europe or in America first? There is disagreement but fossil records of pollen and acorns go back 53 million years.<sup>(2)</sup> What is known is that as the tropical seas and forests of the Eocene epoch moved southward in North America the cooling climate allowed oaks to spread southward, eventually stopping only when the tropics south of Panama were reached, diverging into 90 species 6 of which are native to Minnesota along with a few rare hybrids.<sup>(3)</sup> Ice ages have come and gone and the oaks have always re-forested the territory. Today in Minnesota there are 1.5 million acres that are predominately oak out of 15.7 million acres of timberland.<sup>(4)</sup> This is split between our 6 native species. The Wildflower Garden today hosts five.

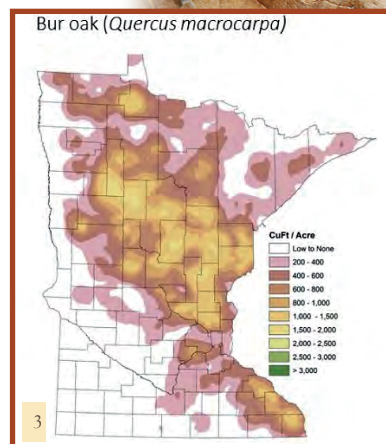
Oaks are divided into 8 lineages - 3 exist in North America: the reds, the whites and the southern live oaks of the Southeast.



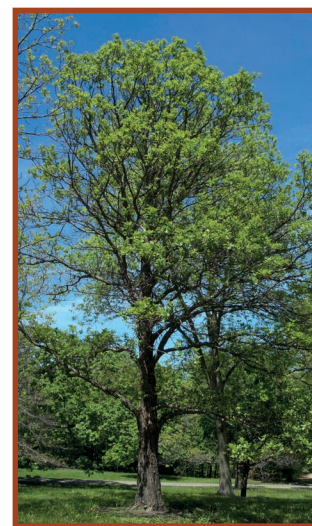
Oak acorns are important for wildlife, but carbon storage is important for all life and of all the forest trees oak, along with maple, hickory and beech sequester more pounds of carbon than any other tree species. A typical oak of 20 inches diameter will store over 2,000 pounds and tuck in an additional 20 to 25+ pounds per year.<sup>(5)</sup>



A standard hypothesis is that warming climate will expand the current northern limit of growth of a species and retard it at its southern end. Thus, the coniferous boreal forests of northern Minnesota will be pushed northward and hardwoods will move north. Minnesota's climate has moved north 70 miles in the last 50 years and is estimated to move another 125-250 miles in the next 50 years.<sup>(6)</sup>



Experiments indicate firs and spruces will have great difficulty but the temperate oaks and maples may not, meaning that oaks will become even more dominant in areas like Minnesota although the southern growth limit may move north. Chart 3<sup>(7)</sup> gives the range and tree concentration in Minnesota of Bur Oak. Red Oak is quite similar whereas White and Northern Pin cover much less territory. Estimates by the Minnesota DNR indicate that the White Oak may be able to gain territory in NE Minnesota where it is rare today, the Bur Oak will maintain its territory but the Red Oak will move out of SE Minnesota where it has areas of dominance today. The Wildflower Garden is situated in an area that should remain habitable to all the Oaks still present. The Chinkapin Oak, *Q. muehlenbergii*, which is historical to southern Minnesota and to the Wildflower Garden may be able to move northward from Iowa. ❖



Chinkapin Oak, *Q. muehlenbergii*.  
Photo G D Bebeau

## Text notes:

- (1) A. L. Hipp, P. S. Monor & J. C. Bares, Ascent of the Oaks, Scientific American, Aug. 2020.
- (2) *ibid*.
- (3) *Flora of North America*, Volume 3. & Anita Cholewa, *Flora of Minnesota*, 2018.
- (4) S. Hillard, K. Bergstrand, S. Burns, D Deckard, Minnesota Forest Resources, 2018, Minnesota Dept. of Natural Resources
- (5) Carbon in Minnesota Trees and Woodlands, University of Minnesota Extension 2020.
- (6) Boreal Forest Warming, Department of Forest Resources, University of Minnesota, St. Paul.
- (7) see note 4

CHARTS: #1 from (5); #2 G D Bebeau, data from (5); #3-from (4).





## There's Something in the Water

**There's Something in the Water: Environmental Racism in Indigenous and Black Communities** by Ingrid Waldron. Fernwood Publishing, 2018

**There's Something in the Water** directed by Elliot Page & Ian Daniel. 2019; Netflix

Reviewed by Lauren Husting.

In April 2021, when the Northern Metals Recycling Center caught fire and caused a short-term spike in contaminated air particles across the Northside and neighboring communities, I began to pay more careful attention to the environmental injustices prevalent in North Minneapolis.

That led me to this book, and its subsequent documentary, about the history, politics, and effects of environmental racism on Indigenous and Black people. While Waldron's text and Page's documentary focus mainly on communities in Nova Scotia, Canada, the stories are all too familiar to the United States and Minnesota.

The film, directed by actor Elliot Page, consists mainly of interviews and tours of each community. The film's focus is on the human impact business and environmental decisions have on the people around them. Near Shelbourne, the Black community has been devastated by cancer as residue from a closed dump nearby continues to leach into the water supply. In Boat Harbour, the effluent runoff from the paper mill has led to incalculable loss of resources and land coupled with pollution have decimated the Pictou Landing band and few live into their 50s. The Grassroots Grandmas, Mik'maq women fighting Alton Gas's plan to drain salt caverns for oil storage into their sacred river, face persecution, arrest, and even death for standing up for their cause. All three stories stir intense emotions and bring to mind issues Minneapolis and Minnesota are dealing with concurrently.

Waldron's book delves into much more detail on these communities and many others. She documents the concerns about health and quality of life to statistics about pollution levels in the water and air, and reveals the discrepancies that the Black and Indigenous people face when seeking reparation and remediation as opposed to largely white communities in similar situations. While an academic text, Waldron's writing is concise and clear, easily accessible and engaging. She describes successful instances of environmental justice amid the catastrophes, and encourages the reader to extend their research into their own communities to join the fight.

With climate change feeling less and less manageable every day, and the fight for beloved lands and ecologies ongoing, both documentary and book remind us that there is also a human cost. Its overwhelming effects will continue to disproportionately affect Indigenous and communities of color, in North America and around the globe. Everything is connected, including our own human health and wellbeing.❖



Lauren Husting is a Friends board and Diversity, Equity, and Inclusion (DEI) committee member.



# Members Page

## Directors Elected at Annual Meeting September 19, 2021

Candyce Bartol, Colin Bartol, Gary Bebeau, Steve Benson, Kathy Connelly, Lauren Husting, Jennifer Olson, Jim Proctor, Sally Pundt, Steve Pundt, J. Pam Weiner.

Elected as officers by the new Board of Directors  
Jennifer Olson, President  
Candyce Bartol, Secretary,  
Gary Bebeau, Treasurer

Committee assignments are noted in the box on page 8.

## Consider a year-end gift to our program at the Garden.

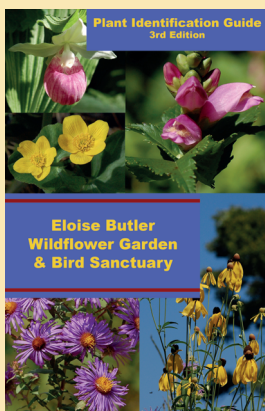
We anticipate students coming back for field trips, volunteers in the Shelter and projects to support in the Garden.

## Books to order & to give

Do you have our Plant Identification Guide? The 3rd edition has 1,950 photos of the 787 flowering plants, trees and the ferns of the Eloise Butler Wildflower Garden including many that are of historic interest. Three hundred of these books have been sold, so why not get yours!

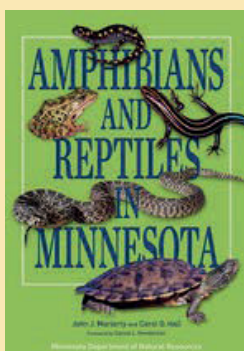
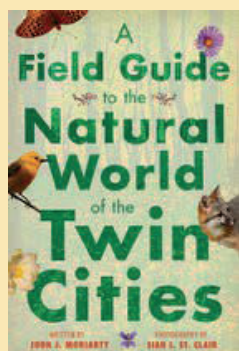
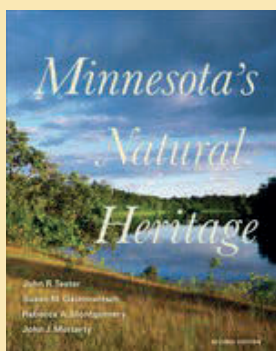
From a buyer in New Hampshire: *What a terrific collection of photos. I'm sure this guide will be a great compliment to other guides I have.* From Minnesota: *I love the book and will cherish it for many years to come.*

Credit card order or use the mail order form, both on our website.



## John Moriarty's Books

We are offering three of his books on our website until December 31, 2021. Online order or use the mail order form, both on our website.



Memberships, memorials and donations to the Friends are tax deductible and are the funds we use for our mission to protect, preserve, and promote the interests of the Eloise Butler Wildflower Garden and Bird Sanctuary as a sanctuary for native flora and fauna of Minnesota and to educate and inspire all people in relating to the natural world so that the Garden remains a special place for generations of people to enjoy. Details about our support are on our website.

## New Members

Susan Czapiewski, Dana Boyle; Sponsors.

## Donations Received

Farrand Anderson, Janet K. Anderson, Cindy Angerhofer, Anonymous, Sharon Bunnell, Stewart Corn & Ellen Ferrari, Marjorie Huebner, Lauren Husting, Estee Lauder Companies, Kathy & Richard Fournier, David Harris & Ward Bauman, JoEllen Haugo & David Smith, Camile Kvinna, Janet Mayer, Sylvia McCollor, Patricia Morrison, Susan & Douglas Nevin, Cora Wortman.

## Memorials/In-Honor-Of Received

*for Bennett Lauerey Busselman* from Gary & Nancy Busselman  
*for Frank Hansen* from: Brad & Christy Crary.  
*for Donette Johnson* from: Dora Schneider.  
*for Juanita Lussenhop* from: Ellen Peterson, Greta Swanson.  
*IHO Bernie Tompkins* from: Sue Anderson, Floyd & Sue, Scott & Dorth, Brooks & Barb.  
*IHO Mary McNerney* from: Elizabeth McNerney.

## Support form

Go online at [www.friendsofeloisebutler.org](http://www.friendsofeloisebutler.org)  
or mail with a check payable to:  
Friends of the Wild Flower Garden  
P. O. Box 3793  
Minneapolis MN 55403

R e q u i r e d	Name	_____
	Address	_____ _____ _____
	E-mail	_____

## Support the Friends:

Annual Levels: ☐ Basic \$25 ☐ Sponsor \$100  
☐ Benefactor \$250 OR ☐ Life \$1,000

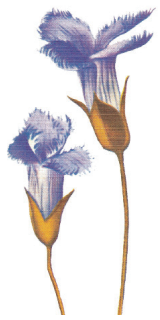
Donation of: \_\_\_\_\_ Amount: \$ \_\_\_\_\_  
☐ Memorial ☐ Gift in-honor ☐ Other donation  
Memorial for: \_\_\_\_\_  
Gift in-honor for: \_\_\_\_\_  
Occasion: \_\_\_\_\_  
Please notify: \_\_\_\_\_  
Address: \_\_\_\_\_



Friends of the Wild Flower Garden, Inc  
P.O. Box 3793  
Minneapolis MN 55403-0793

## ADDRESS SERVICE REQUESTED

PLACE  
FIRST CLASS MAIL  
US POSTAGE  
HERE



**The Fringed Gentian™**  
is published for members and  
supporters of the Friends.

Staff:

Colin Bartol, editor  
Lauren Husting, assistant editor  
Bob Ambler, staff photographer.

[www.friendsofthewildflowergarden.org](http://www.friendsofthewildflowergarden.org)  
[www.friendsofeloisebutler.org](http://www.friendsofeloisebutler.org)

Interested in writing for the Gentian?  
Send an email to  
[colin\\_bartol@hotmail.com](mailto:colin_bartol@hotmail.com)



The Eloise Butler Wildflower Garden and Bird Sanctuary comprises cultivated but naturalistic woodland, wetland and prairie environments, 2/3 mile of mulch covered pathways and a rustic shelter where educational programming and guide materials can be found. It is the oldest public wildflower garden in the United States, established in 1907. The 15 acre site is located within the city of Minneapolis on traditional Dakota homelands and is owned and operated by the Minneapolis Park & Recreation Board.

The Garden is open from April 1 through October 15, weekends only October 15 to October 31. Current hours: Tuesday - Sunday 10 AM to 6 PM; Thursdays - 8 AM to 8 PM; Mondays - closed.



"An unearthly glow." A mushroom as seen in ultraviolet light on an evening in the Garden. Photo by Colin Bartol.

## Can you identify this plant by the seeds?



It flowers in Summer and is shrubby. The answer is on page 153 of the Plant Identification Book, 3rd Ed. Or on website home page.

## OFFICERS AND DIRECTORS

### Board Members

PRESIDENT  
Jennifer Olson

PAST PRESIDENT  
Kathy Connelly

TREASURER, MEMORIALS  
Gary Bebeau

SECRETARY  
Candye Bartol

NEWSLETTER EDITOR  
Colin Bartol

MEDIA COMMUNICATIONS  
Lauren Husting

OTHER DIRECTORS  
Steve Benson  
Pam Weiner  
Sally Pundt  
Steve Pundt

INVASIVE PLANT Co-CHAIR  
Jim Proctor

GARDEN CURATOR  
EX OFFICIO  
Susan Wilkins

### Additional Staff

MEMBERSHIP  
COORDINATOR  
Christi Bystedt

INVASIVE PLANT  
Co-Chair  
Kari Christianson

SHELTER DOCENTS  
COORDINATOR  
Melissa Hansen

"The beauty of the Wildflower Garden is found in the imperfect, incomplete, and impermanent." former Gardener Cary George

