

THE FRINGED GENTIAN™

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

FIPAG after 15 years

By Jim Proctor

It has been quite a while since the last update on the restoration work by the Friends Invasive Plant Action Group (FIPAG) in the Volunteer Stewardship Area (VSA) surrounding Eloise Butler Wildflower Garden and Bird Sanctuary. For more than 15 years, FIPAG has been hard at work, weeding garlic mustard in the spring and buckthorn in the fall to keep invasives away from the garden. In the last few years, we have added to our toolbox of techniques that previously consisted mostly of hand-pulling and weed-wrenching buckthorn, roots and all. Now we are also using a brand of shovel called a Root Slayer, and a cutting technique called “critical cutting.” The new techniques help limit soil disturbance and erosion, especially on slopes, which is vital to protect the ability of the ecosystem to recover.



This is most efficient in areas of deep shade where the plants are less vigorous. This disturbs no soil at all, which is great, but is quite time-consuming and labor-intensive.

Using a mix of all these techniques, we are close to a time when there will be no more mature buckthorn plants in the entire VSA, possibly this year! We will still have several years of pulling seedlings and stragglers, and there will always be new seeds brought in by birds but reproducing buckthorn will be gone.

Much of the VSA that has been invasive-free for years is looking great. Cherries, elderberries, dogwoods and nanny berries are proliferating. Wildflowers are becoming more numerous. It is so heartening to see this occur, and to know that these natives provide habitat and food to hundreds more species of insects, and therefore birds, than the monocultural buckthorn they replace.

Root Slayer shovels are well designed to cut through roots with their concave digging edge that helps center large roots on the cutting edge, rather than bouncing off them. The sides of the narrow shovel are serrated to cut through additional roots. This allows us to cut out the core roots of the buckthorn and leave behind the lateral roots, which rarely re-sprout. We disturb much less soil this way and kill the plant in one visit. It is somewhat difficult work, but efficient. The downside is it does still disturb some soil and create the opportunity for erosion.

The second technique named “critical cutting” involves cutting the buckthorn high on the stem, after it has leafed out in the spring, depleting its stored energy. Repeated stripping off the new growth in the following months and years leads to the shrub’s death.



That said, we are experimenting with planting some plants in bare areas to add diversity back that seems lacking after years of domination by non-natives. This spring we’ve planted small amounts of mayapple, big-leaved aster, wild ginger, maidenhair fern, and woodland phlox. This fall we are considering bare-root seedlings of bladdernut, hazelnut, and a few other appropriate but under-represented shrubs and understory trees.



Thanks to all of you have been able to help us over the years!❖

Photos: A six-year transition of the Maple Glen from dense buckthorn to native plants.
Shovel photo courtesy Radius Garden;
removal work - FIPAG; fall scene of clearing -
G D Bebeau.



President's Greeting

By Jennifer Olson

As I am planting my vegetable garden, containers, and adding new garden flowers, the staff at the Garden has been busy planting this spring. Why are they planting, when it's a wildflower garden? Don't plants just grow, and propagate? No...trees die, the wetland is sunnier and supports different vegetation, and critters do some damage. Yes...the fence to keep out the deer and trails to keep us humans off the plants do help. According to Gary Bebeau's historical notes on the Friends' website, one hundred years ago, Eloise Butler planted Narrow-leaved Leek, Sweet Black-eyed Susan, and Queen Anne's lace. Seventy-five years ago, Martha Crone planted 175 Minnesota Dwarf Trout-lily plants, unique to Minnesota counties: Rice, Goodhue, and Steele. The trout lily is a spring highlight of many Garden visitors.

Each year along with the Minneapolis Park and Recreation Board, the Friends provide funds to pay for plantings in the Garden. Your membership fees and donations support this endeavor. Martha Crone, wrote in the first *Fringed Gentian*, January 1953, "It requires sufficient funds, help and material to do justice to such a unique garden which is conducted for the preservation of herbaceous plants, shrubs and trees."

The board will be reviewing the membership fees this year. In 1953 membership was \$3 and over the last decade \$15. I encourage you to invite a friend or two to become members. In our world of recycling, reusing, and reducing, support the Garden with a birthday, graduation, anniversary or any occasion gift in honor of your special person(s). This year for our Annual Member Meeting in September, we will have a guest speaker, John Moriarty, author of *A Field Guide to our Natural World in the Twin Cities* and one of the co-authors of the updated *Minnesota's Natural Heritage*. My hope is an annual speaker will become a Friends' tradition. I look forward to your joining us for this event in September. More details will be mailed to you in August Please feel free to contact me with your ideas and suggestions at fern@friendsofeloisebutler.org.

May The Garden Be With You ❖ Jennifer Olson

Did You Know?

The Minnesota Dwarf Trout-lily referred to in the President's column was first identified in 1871 when Faribault teacher Mary Hodges sent a collected example to Professor Asa Gray at Harvard. He determined it was a previously un-recorded species and gave it the botanical name *Erythronium propullans*. They exist only in the ravines of an area around the Straight, Canon, Little Cannon and North Zumbro Rivers.

This is the only known population in North America and is thought to be of post ice-age origin. It is the only Minnesota species on the the Federal Endangered Plant List. Without protection of the restricted habitat, encroachment by development or other factors causing habitat loss, will lead to extinction of the species in the wild.



Photo: Martha Crone
April 25, 1955.

In a protected area, such as the Eloise Butler Wildflower Garden, the species is long-lived. More details are available on the Friends website plant page. ❖



New plants getting ready for the new home in the Garden. Photo by Jennifer Olson.

Garden Notes



Curator's Update

by Susan Wilkins

Late summer is upon us and many sun-loving plants of the Wildflower Garden are in full bloom. The upland garden is a verdant meadow of bee balm, joe pye weed, culver's root, and coneflower to name just a few of the dozens of species in bloom. The wetland garden is graced by tufts of pink meadowsweet and magenta colored swamp milkweed. Along the boardwalk, swaths of purple-stemmed and flat-topped asters are in bud and soon will be flowering. Even with the heat and long days, summer progresses so quickly and here we are, already looking at the late summer blossoms about to start.



All are welcome in the many languages of the area at the Eloise Butler Wildflower Garden and Bird Sanctuary.
Photo by Colin Bartol.

Starting the week of July 12, two popular Garden programs were reintroduced with great joy, Garden Story Time and Early Birders. With two weeks of programming underway and a full group of participants for each offering, it's been wonderful for staff to be able to offer a limited number of programs in a thoughtful and safe manner to a very receptive audience. Plans are underway to bring a few more program offerings into the fold this autumn. Updates will be posted on the Garden's webpage and social media accounts.

You can stay connected to Garden highlights and happenings by visiting the Garden's Facebook and Instagram pages @EBWGMpls

And, if you can, be sure to stop out for a visit soon to be awed by the abundance and beauty of the Garden this summer.❖

Late summer is upon us and many sun-loving plants of the

This past spring was delightful as well, with mild weather and just enough rain to allow for many of the woodland wildflower species to bloom for weeks on end. In many years, due to spikes of higher spring temperatures, strong winds, or extended dry spells, many species only bloom for days. The prolonged bloom times for many species allowed for more overlap of blooming plants and the layered display of woodland wildflowers for several weeks was truly synchronistic and a feast for the eyes and spirit.

It would never grow for her!

Fireweed, or Great Willow Herb, was an elusive plant for Eloise Butler. Her friend Gertrude Cram told Martha Crone that nothing would ever induce it to grow for her.¹ Eloise imported the first plants, including a suitcase full acquired during a train breakdown on her way back to Minneapolis from Malden in 1908.²

Fireweed is an international plant, found in Europe and North America. The origin of the name is from the belief that it primarily colonized recently burnt-over sites, but other plants do likewise and some of those are also called "fireweed." In reality any recent bare spot is game for this plant. Mrs. Grieve (*A Modern Herbal*, 1931) notes that the plant would spring up in a town, self-sown, on waste ground recently cleared of centuries old buildings; she specifically mentions areas in London where the ground remained in a wasted state for some time, though no one could explain where the seeds came from.

Paleo-archaeologist Mary Leakey wrote that upon returning to London in 1946 from Kenya after the Blitz and the War there were unfilled craters and un-cleared rubble everywhere. "Later in the year we saw some of the devastated areas in the city become pink with flowering spikes of willow-herb, which had colonized the open spaces and was by now well established and thriving there."³

It has found its sweet spot in the Garden along Goldenrod Trail where it has thrived for years now. More details on our website.



Notes:

1. Letter to Crone, August 1934.
2. *Experiences in Collecting*, 1911
3. *Disclosing the Past*. Doubleday 1984

Text - Gary Bebeau

Fireweed, *Chamerion angustifolium*, now has a home in the Upland Garden. Photo G D Bebeau



In Praise of Summer Flowers by Eloise Butler

Doubtless Everyone Would select as the crowning wild flower for the calendar months of the growing season in Minneapolis the pasque flower for April, violets for May, roses for June

and lilies for July.

Of our three native lilies the Turk's-cap, although not the lily of Palestine, may be said to surpass the glory of Solomon, as it is arrayed in recurved orange-red petals flecked with spots of purple. Sometimes as many as forty blossoms are borne on a single plant. (1)

Beautiful, also, are the yellow swamp lily, with floral leaves spotted with brown and less recurved than those of the Turk's-cap and the Wood Lily, with an erect, cup-like flower of deep, glowing red. The vivid colors of all these lilies were developed in crucibles fired by summer's fiercest noon-tide heat.

Troops of Black-eyed Susans boldly stare at roamers over the hillsides. As we return Susan's unblinking gaze we see that her eyes are a velvety, purplish brown instead of black. This coneflower is a composite. The "eye" is made up of many small, tubular flowers, and each yellow eyelash is also a flower.

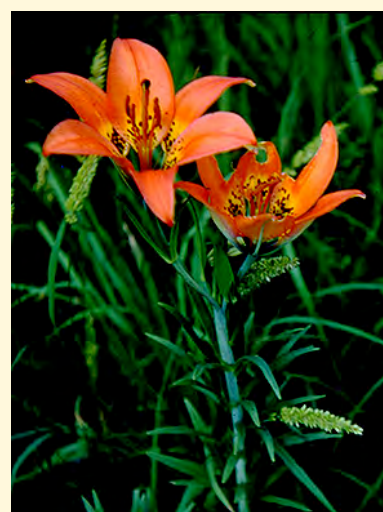


Black-eyed Susan, *Rudbeckia hirta*

Another composite adorned with yellow ray petals and towering in splendor above its competitors in rich, alluvial soil, is the Cup Plant. The large leaves, arranged in pairs

along the stem, are united at the base to form a deep cup for holding water. This may serve the double purpose of tiding the plant over a dry spell and of keeping unwelcome, crawling insects from the flowers. People in the tropics use a similar means to keep the ants from food by inserting the legs of the dining tables in dishes of water.

The interesting Rosin, or Compass Plant of the prairie is of the same genus as the cup plant. Its leaves are cut edgewise and



Top: Michigan Lily (Turk's-cap), *Lilium michiganense*. Lower left: Canada Lily (Swamp or meadow Lily), *L. canadensis*. Lower right: Wood Lily, *L. philadelphicum*, photo from a Kodachrome taken by Martha Crone in the Garden June 22, 1949.

point due north and south. Persons lost on a trackless, uninhabited prairie might find their bearings by this vegetable compass. An army officer stationed on the western plains, the first observer of the plant, thought the leaves must have the properties of the magnetic needle. Failing to prove this theory by experiments, he forwarded specimens of the *Silphium* to Dr. Asa Gray, the American Darwin, who suggested that the

peculiar position of the leaves was for the purpose of avoiding the direct rays of the sun in order to check too great a loss of water by transpiration.

Since that time "polarity" has been observed in the leaves of many other plants growing in drought regions or in exposed situations, as the eucalyptus trees of Australia. Such trees, of course, afford no shade. The habit may be noted in the roadside weed prickly lettuce, and in some degree even in the garden lettuce.



Cup Plant, *Silphium perfoliatum*.

"I am not an enemy of formal or cultivated gardens; although I love wild gardens more and think our native plants superior, for the most part, to foreign ones in beauty and appropriateness."



Culver's Root, *Veronicastrum virginicum* (formerly *Veronica virginica*.)

A Note a caution for gardeners:

Why, for instance, because a neighbor has a beautiful plant on his premises should every one in the vicinity straightway fill his grounds with the same in monotonous reiteration? Among the hosts of ornamental plants may not something else be selected besides hydrangea, scarlet rambler, canna and golden glow to prevent satiety? If a plant is "all the rage" it is the very best reason why one should fall out of line and imitate nature in her endless variety.❖

To subdue the brilliant orange and reds of the lilies and composites, Mother Nature has planted among them with judicious and generous hand various white flowers, as *Veronica virginica*, with feathery spires of bloom, some branched like candelabras, topping slender stems, clothed at intervals with whorls of narrow, pointed leaves. It is popularly called Culver's Root, or Culver's Physic, because one of that name extracted a specific from the root.

The shrub-like *Ceanothus* or New Jersey Tea, seemingly covered with sea foam and mist, has drifted from the Atlantic to the valley of the Mississippi. This plant has historic interest as well as refined beauty. It is well that it grows in prodigal masses in wide distribution. For, after the Boston Tea Party, a brew of the leaves of the *Ceanothus* plenished the teapots of our revolutionary forebears.

Dusky glens are illuminated by the Starry Champion, thus refuting the poet who says that the night has a thousand stars and the day but one. The poignant beauty of the flower is due to the delicate white-fringed petals that cap the green calyx bell. (2)



New Jersey Tea, *Ceanothus americanus*.



Starry Champion, *Silene stellata*

Text notes:

- (1) Illustrated on both pages is the Michigan Lily, *L. michiganense*, which is native to Minnesota. The Turk's-cap, *L. superbum*, is widely planted but not native. Both are referred to as "Turk's-cap" and Eloise planted the latter in 1908.
- (2) *Silene stellata* is sometimes called Widowsfrill. Eloise first planted this species in the wildflower garden in 1910.

Editor's notes: The text is by Eloise Butler and was taken from her writings of 1911/1912, primarily from the 1911 series of newspaper columns published every Sunday in the *Minneapolis Sunday Tribune*. When the Board of Park Commissioners in 1911 made permanent the space allocated to the garden in Glenwood Park and created the position of curator for Eloise, she used these articles and many others to publicize the new Wild Botanic Garden. All of her 1911 essays can be read on the Friends' website.

Photos: Eloise Butler's photo is ca 1921, courtesy Minneapolis Central Library. Wood Lily, Martha Crone. Others by G D Bebeau.

Eloise Butler's Wildflower Garden Reflects the Biodiversity of Minnesota's Biomes

Minnesota's Natural Heritage Second Edition 2021

By: John R. Tester, Susan M. Galatowitsch, Rebecca A. Montgomery, and John J. Moriarty

Reviewed by Jennifer Olson

At the book launch on January 21, 2021 hosted by the Bell Museum, Minnesota was lauded for its uniqueness with three of the world's ten biomes: the northern coniferous forests, the deciduous forests, and the prairie, each with its lakes, wetlands, streams and rivers. It reminded me, that the 15 acre Wildflower Garden was developed to display a wide variety of Minnesota's native plants in a naturalistic way, conveying the feel and structure of some on our state's truly wild spaces. Minnesota is near the center of North America resulting in its climate of high and low temperatures and moderate precipitation producing our biodiversity of vegetation.

12,000 years ago, as the glaciers receded, the landscape of our state radically changed. Tester in his preface identifies population growth

over the past 200 years impacting our land more so as we mine, log, and clear land for agriculture, industry, and housing. University of Minnesota Professor of Ecology, John Tester wrote the First Edition of Minnesota's Natural Heritage in 1995. Because of the significant changes in Minnesota's natural heritage in the last 25 years he collaborated with Professor Galatowitsch of the Department of Fisheries, Wildlife, and Conservation Biology, Professor Montgomery of the Department of Forest Resources, and John Moriarty, Three Rivers Park District wildlife senior manager to update Minnesota's Natural Heritage to enhance our understanding of Minnesota's ecosystems.

The ten chapters in both editions bear the same titles accompanied by wonderful photographs, maps and diagrams, many from the 1995 edition. However, each chapter now ends with Trends and Restoration and Management highlights. The "Deciduous Forests" chapter speaks to fragmentation of the forests, unable to support animal species with large home ranges, with loss of both animal and plant biodiversity. The forest understory declines secondary to deer browsing and non-native invasive species like earthworms and buckthorn which interfere with forest regeneration. The emerald ash borer and the gypsy moth kill or weaken trees. Climate change will double

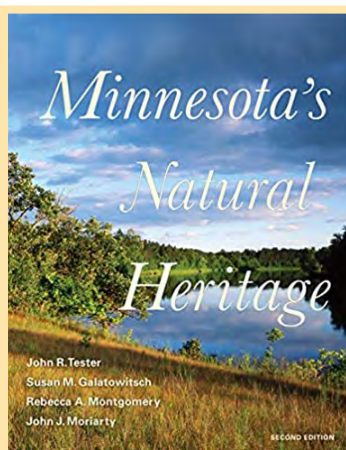
the number of oaks, but frequent and longer droughts will contribute to the loss of the maple-basswood and boreal-pine forests. The challenge is to restore and maintain the forests that we have through collaboration of state and federal agencies, universities, nonprofit organizations, and private landowners.

Our warming climate impacts our coniferous forests with projections that these forests will not exist in Minnesota by 2100. With European settlement 18 million acres of Minnesota was turned into farmland. Only 235,000 acres of tallgrass prairie remains. In the last 25 years the amount of native protected prairie has increased from 48,000 to 120,000 acres. 90% of the wetlands in prairie have been lost and 40-60% in the deciduous forests. But Minnesota is meeting its goal of "no wetland loss". Lake degradation is related to its surrounding environment, and the Minneapolis Chain of Lakes were a successful restoration through the Clean Water Partnership Project. Our streams and rivers are in better condition than 30 years ago when the Clean Water Act was starting, but still nitrates have increased 75% in our rivers.

Chapter 10 is "The Future" – twice the length of the First Edition's chapter. The future of Minnesota's ecosystems depends on an informed public through their individual actions, their voice in local land use decisions and participation in the legislative process.

I believe Eloise Butler would agree with John Tester, "The natural world has benefits for everyone." This is a fine reference book for the citizens of Minnesota to comprehend our ecosystems and its future. Next time you visit garden, there will be a Minnesota's Natural Heritage book in the Shelter for you to peruse.❖

Upland Garden photo-west loop path leading to oak savanna: G D Bebeau



Membership - Donations - Memorials

Member Notes

Memberships, memorials and donations to the Friends are tax deductible and are the funds we use to assist the Minneapolis Park & Recreation Board in supporting the Garden so it remains a special place for generations of people to enjoy. In 2021 donations will be used to fund the Student Transportation Grant Program and plant purchases for the Garden. Details about our support are on our website. An acknowledgment of donation will be provided to all donors.

Donations Received

Donna Ahrens, Anonymous, Michael H. Baker Family Foundation, Colin Bartol, Christopher Brunelle, Jeanmarie Hentges, Monica Marshall, Peter Michaud, Edith Miller, Minneapolis Foundation, Stephanie Musich, Ruth Olson, Maggie Tuff, Paul West.

Memorials/In-Honor-Of Received

for John Haldeman from: Lube-Tech, Sandra Boven, Bette Mae Buelow, Janice Mostrom, Janet Krier, Bonnie Schindler, Nancy Spannaus, Pam Weiner.
for Marguerite Harbison from: Pam Weiner.
for Delores E. Rak from: Karen & Michael Longerbone
for Marcella B. Carter from: Darryl Carter.
for Patrick Mack from: Michael Mack

New Members: Julie Bartsch, Life; Stacy Thompson, Sponsor.

A Special Legacy in Support of the Friends

When Friends member Elizabeth Schutt died in 1999 she left a legacy to the Friends via an annual gift from a fund she set up in her father's name, The Mendon Schutt Family Fund, administered by the Minneapolis Foundation. Her mother, Clarissa, was a friend of Eloise Butler. Elizabeth knew Eloise and her two successors, Martha Crone and Ken Avery. She was in the first group of shelter volunteers in 1970 and she donated as a memorial to her mother the large oak table that still graces the Martha Crone Shelter.

That long legacy of acquaintance with the Garden and its early curators undoubtedly was the background for the bequest made by Elizabeth to the Friends. Elizabeth lived in Minneapolis in the house that her father built as a wedding gift for his new bride, the same house you may have visited in 2015 for a Friends fund raising event that is now owned and restored by 21st century supporters of the Friends. ♦



Passing of two members

John Haldeman- 48 years

Marguerite Harbison - 27 years

Marguerite was a Friends Director from 1994 until 2005, served as memorials chair and helped organize volunteer appreciation events.

Want to honor someone?

A gift in their honor can simply be a means of honoring a living person or some group

or

use this as an alternate type gift for a holiday, a birthday, an anniversary, etc. We will inform them of your gift and about the Friends and the Garden. Use the form below or go to our website support page.

Board of Directors positions

The Friends Board of Directors can use your talents!

We are an all-volunteer board that meets several times per year. If you have an interest in the Wildflower Garden and in helping support it and supporting our mission of educating the public about the Garden and the natural world, then get more details by sending an email to:

fern@friendsofeloisebutler.org

Other volunteer opportunities are explained on our website.

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Donations, memorials and in-honor-of support gifts can be placed online at www.friendsofeloisebutler.org or mailed with a check payable to:

Friends of the Wild Flower Garden
P. O. Box 3793
Minneapolis MN 55403

For an in-honor-of gift, give their name and address. That person will receive notification and information about the Friends. For a memorial please give the name and who to be notified.

Thank you for helping us support the Eloise Butler Wildflower Garden and Bird Sanctuary. All gifts are tax-deductible and are used to support our program.

R e q u i r e d	Name	_____
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Support the Friends annually:

Levels: ☐ Individual \$15 ☐ Duo/Family \$25
☐ Sponsor \$100 ☐ Sustainer \$200 ☐ Life \$500

Donation for: _____ **Amount:** \$ _____

☐ Memorial ☐ Gift in-honor ☐ Other donation

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Occasion: _____

Please notify: _____

Address: _____

About Us

The Friends of the Wild Flower Garden, Inc. is a non-profit organization of private citizens whose purpose is to protect, preserve, and promote the interests of the Eloise Butler Wildflower Garden and Bird Sanctuary for its unique beauty and as a sanctuary for native flora and fauna of Minnesota, and to educate and inspire people of all ages in relating to the natural world.

For changes to your mailing address or email address, please email:

Membership Coordinator

Christi Bystedt at:

membership@friendsofeloisebutler.org
or mail to:

Friends of the Wild Flower Garden, Inc.

Membership

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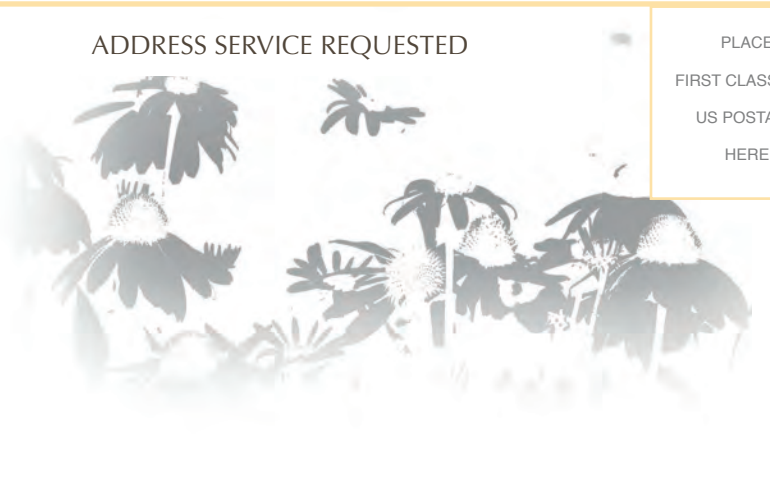
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Colin Bartol, editor
Lauren Husting, assistant editor
Bob Ambler, staff photographer.

www.friendsofthewildflowergarden.org
www.friendsofeloisebutler.org

Interested in writing for the Gentian?
Send an email to
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.

Annual Meeting of the Friends of the Wild Flower Garden

3 PM Sunday, September 19, 2021

Held virtually via ZOOM
Link to meeting will be posted a week prior.

Speaker John Moriarty

Author of *Field Guide to the Natural World of the Twin Cities*
and a co-author of *Minnesota's Natural Heritage* 2nd Edition

Meeting to follow with Garden updates and Election of
2021-2022 Board of Directors.



Above: Eastern Purple Coneflower. Masthead - Gray-headed Coneflower. Photos G D Bebeau

Can you identify this plant?



It flowers in the upland in late Summer and grows to 5 feet high. The answer is on page 168 of the Plant Identification Book, 3rd Ed. Or page 107 2nd Ed. Or on website home page.

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