

June
2018

The Orchid Grower

Orchid Growers' Guild of Madison



OGG Annual Pot Luck Picnic, June 9th

The OGG Annual Pot Luck Picnic will be hosted by Keith Nelson and Karen McKim on Saturday June 9th, at their home in Waunakee. Tables will be available. Please bring picnic chairs if you have them. Bring a dish to share. They will provide a cooler with ice and glasses, plates and utensils.



Ribbon judging at noon with lunch to start at 12:30.

Some pop up shelters be provided. If it rains we will just squeeze into the house and garage. Children are welcome but there are no child play sets or toys.

Meeting Dates

- June 9, Picnic
- September 16
- October 21
- November 18
- December 16

Meetings start at 1:30 pm at Olbrich Gardens unless otherwise noted

Up-Coming Events

- **September 15 - 16**, Wisconsin Orchid Society Show
- **October 26-28**, MAOC Fall Meeting
- **October 27 - 28**, Eastern Iowa Orchid Show

Officers and Committees

President:

Susan Reed (2020)
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Vice President:

Cynthia Wadsworth (2019)
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Keith Nelson (2019)
nelsonridge@tds.net

Treasurer:

Denise Baylis (2020)
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Board:

Barbara Soderling (2020)
bhsoderling@yahoo.com

Nancy Thomas (2019)
mikeandnancy@tds.net

Carrie Weisman (2021)
carrie.wiesman@dwd.wi.gov

Letter from our New President

Welcome to Summer OGG members! We missed spring this year. We even had to cancel our April meeting due to snow!!!

I would like to thank Lorraine for a fabulous four years of her leadership of the OGG. She worked hard to making sure we had interesting meetings, plant sales, and support for the away shows. The provide great support to Terri for Orchid Quest in various ways, especially with the vendors and the silent auction and raffle. She leaves behind big shoes to fill.



Unknown *Phalaenopsis*

Thank you also to the Board members who offered to continue in their posts, Denise Baylis as Treasurer and Carrie Weisman as Board

Member and Membership Chair. With them and the other board members, Nancy Thomas (Away-Show Chair), Keith Nelson (Secretary), Cynthia Wadsworth (Vice-President) and Barb Soderling (Board Member), OGG is lucky to have a very strong and active board.

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Away Shows:

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mikeandnancy@tds.net

Hospitality:

Volunteer

Librarian:

Liz Wood
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Membership:

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Liaisons:

AOS: Nancy Thomas
MAOC: Keith Nelson
Orchid Digest: Open

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The organization is only as good as its active members, so we will be asking for more members to help us plan meetings and participate so that the organization reflects the members' interests.

Besides having the election of officers, the May meeting had a great orchid plant and supply auction! Our auctioneer extraordinaire Rich Narf with able assistance from Keith Nelson, moved the event right along.

This year's action grossed \$435.75 which compares favorably with the 2017 total of \$404. The items consisted of plants, pots, ceramic mounts, lights and orchid memorabilia. A great thank you to all members who donated and who bought!! We had some intense bidding for a few choice orchid plants!

Do not forget our annual OGG picnic this year at Keith Nelson's lovely home on June 9 starting at 12 noon. Check out Keith's neat growing areas in and around his house.

Scott Weber is keeping an eye out for blooming native orchids so be alert for a quick email about a "pop-up" field trip to see them. There probably won't be much advance warning, and we will try to set up car pooling where possible, so be ready!

The OGG fiscal year is drawing to a close and we are in a good financial state. More details can be obtained by requesting them from Denise.

This September the Milwaukee Orchid Show will be the first show of the Fall season followed by an October show in Iowa for the Eastern Iowa Orchid Society. Please let me know and enjoy your summer!

---- Sue Reed, OGG President



UP-COMING EVENTS

- **September 15 - 16**, Wisconsin Orchid Society Show: "Fall in Love with Orchids, 2018", Mitchell Park Horticultural Conservatory, "The Domes", 524 S. Layton Blvd., Milwaukee, WI 53215
- **October 26-28**, MAOC Fall Meeting, hosted by Orchid Society of Greater Kansas City, Independence, MO
- **October 27 - 28**, Eastern Iowa Orchid Show & Sale: "Orchids Are A Scream", Cedar Rapids Elks Lodge #251, 801 33rd Ave. SW, Cedar Rapids, IA

May OGG Ribbon Judging

First Place

Keith Nelson *Catyclia* Middleburg x *Encyclia bractescens*
Nancy Thomas *Bulbophyllum bicolor*
Bruce Luebke Unknown *Phalaenopsis* [see page 4]

Second Place

Keith Nelson *Neofinetia falcata*
Keith Nelson *Liparis loeselii*
Meg McLaughlin Phal Malibu Bistro 'Floriculture' (Prince Puck x Kathleen Ai)
Lorraine Snyder Unregistered Mini *Phalaenopsis*
Meg McLaughlin Unknown *Phalaenopsis*
Scott Weber *Vuylstekeara* Melissa Brianne 'Dark' (*Miltonia* Anne Warne x *Oncidium* Mrs. Rudolf Pabst)
Keith Nelson *Phragmipedium caudatum*



Vuylstekeara Melissa Brianne 'Dark' (*Miltonia* Anne Warne x *Oncidium* Mrs. Rudolf Pabst)



Phalaenopsis Malibu Bistro 'Floriculture' (Prince Puck x Kathleen Ai)



Bulbophyllum bicolor

... FROM OUR MEMBERS



Keith Nelson brought the *Neofinetia falcata* 'Shutenou' Red Emperor [top left] to a Board meeting. The *Neofinetia falcata* below it bloomed for the OGG members meeting. He also provided a photo of the *Phragmipedium caudatum* with 20" petals, and still growing.



This Phalaenopsis was purchased at Walmart! After it was done blooming I removed it from the pot and mounted it on a cork slab. This is the second year on the slab. This is the best it has ever looked and it started blooming in December. It sits on the small wood picture easel (from Amazon) in an east window. From spring through fall the window is at least partially open for added air movement and to take advantage of the cooler night temperatures. Last year I kept the plant/easel facing into the room and of course the spike and blooms all went up and over the slab towards the window so it didn't look very good. When it spiked this year I turned the whole thing around to face the window. I water once per week. If things are not frozen over outside I use pond water (which probably includes its share of goose poop!). In the winter I use city tap water. I fertilize weakly, weekly with Dyna-Grow Orchid-Pro 1\2 tsp/gal. I water once with plain water then water again with the fertilizer. I also lightly mist the aerial roots each morning to keep the humidity up a bit.

--Bruce Luebke

Bolz Conservatory, What's Blooming in May



Cattleya bicolor



Paphiopedilum gratrixianum



Bulbophyllum sp.



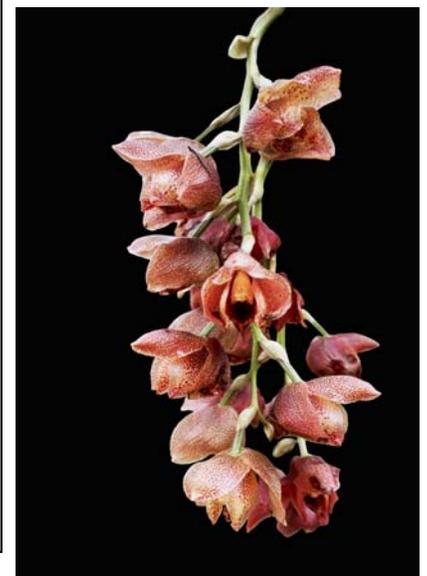
Stanhopea tigrina

Some of the Orchids in Bloom

- *Acineta beyrodtiana*
- *Acineta superba*
- *Bulbophyllum carunculatum*
- *Bulbophyllum dearei*
- *Bulbophyllum echinolabium*
- *Bulbophyllum gibbosum*
- *Bulbophyllum sp.*
- *Cattleya (laelia) purpurata*
- *Cattleya bicolor*
- *Cirrhopetalum robustum*
- *Coelogyne pandurata*
- *Dendrobium trantuanii*
- *Encyclia alata*
- *Encyclia prismatocarpa*
- *Gongora pterodactyl*
- *Gongora scaphephorus*
- *Lycaste macrophylla*
- *Maxillaria callichroma*
- *Maxillaria tenuifolia*
- *Maxillaria variabilis*
- *Micropera rostrata*
- *Myrmecophila thompsoniana*
- *Paphiopedilum gratrixianum*
- *Phalaenopsis fuscata*
- *Phalaenopsis parishii*
- *Phragmipedium caudatum*
- *Phragmipedium longifolium*
- *Phragmipedium sp.*
- *Pleurothallis quadrifida*
- *Podangis dactyloceras*
- *Smitinandia micrantha*
- *Stanhopea bucephalus* 'Ruth Marie Christian'
- *Stanhopea tigrina*



Gongora scaphephorus



Acineta Beyrodtiana

Dormant Orchids Need Fungi to Rise Again

By Kristen Minogue



Small whorled pogonia orchid, *Isotria medeoloides*.
(Photo by Melissa McCormick/SERC)

If you are a plant, when life aboveground turns harsh, you have few options. Some orchids respond by going dormant, spending years to decades underground before reemerging. But an army of the right fungi may help jolt them out of dormancy ecologists from the Smithsonian Environmental Research Center discovered in a new study published today (Jan. 6, 2017) in the [American Journal of Botany](#).

Smithsonian scientists have been working hard to understand the ecology of one particular orchid and why it enters and exits dormancy. The small whorled pogonia is widely regarded as the rarest orchid east of the Mississippi. Federally listed as threatened, the orchid has vanished from Maryland and is endangered in 16 other states.

Endangered Orchids Underground

At first glance, the small whorled pogonia is a strange poster child for orchid conservation. It's a tiny, unassuming plant with a pale green flower above a whorl of five leaves, or occasionally four or six.

"It's not very fancy at all," said Rachel Rock-Blake, who worked with the SERC team as part of her master's thesis at the University of Con-

Many small whorled pogonia populations have plants that go dormant and persist underground, perhaps as a way to survive drought, deer or other dangers. While underground, they can secure enough resources to survive and emerge aboveground, most likely because orchids utilize an underground source of energy: fungi.

Fungi grow in and on the roots of almost all terrestrial plants, helping them absorb more water and nutrients in exchange for carbohydrates. But when fungi and orchids interact, only the



Melissa McCormick kneels in a Virginia forest with small whorled pogonias. (Photo by Dennis Whigham/SERC)

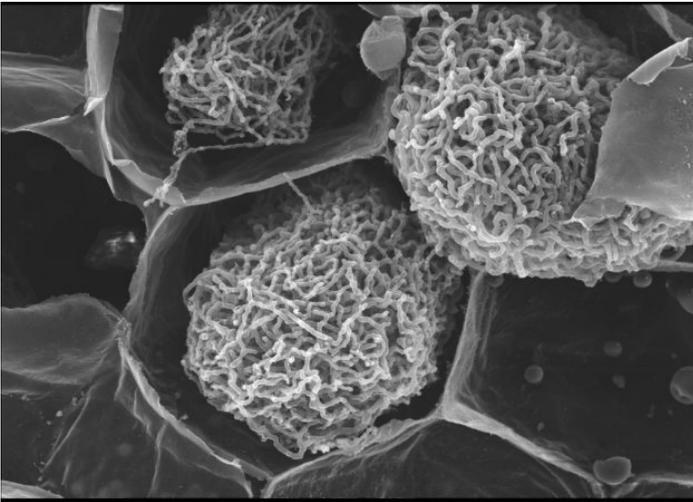
orchid seems to benefit. In essence, orchids become parasites, digesting fungi as a source of nutrients. Small whorled pogonias, like all other orchids, depend on these fungi, especially during periods of dormancy when they don't have any leaves to capture sunlight and provide carbon.

The SERC team and Rock-Blake made the first

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discovery of a possible link between the amount of certain soil fungi and orchid dormancy. They wanted to know whether the amount of fungi in the soil would not only help orchids survive during dormancy, but also help snap them out of it.

“If you have something like a fungus that’s a nutrient source for a plant, it seems logical that the more of the fungus there is, the better the plant should grow,” Melissa McCormick, lead paper



An odd couple: When fungi encounter an orchid root, the fungus roots form coiled balls called pelotons, like these, which the orchid digests for nutrients. (Liz Kabanoff, University of Western Sydney)

The idea was simple enough: Orchids above-ground should have more fungi in the soil around them. Using DNA to find those fungi was another story.

“When you take an amount of soil the size of a lima bean and you have 150 species of fungus in it, being able to pick out just the fungi that you’re interested in or that your plant would be interested in is difficult,” McCormick says.

McCormick, Rock-Blake and SERC intern Hope Brooks did it by using a special fragment of DNA called a primer. The primer latched onto DNA of *Russulaceae* fungi in the soil samples and nothing else, allowing them to calculate the amount of those fungi in the soil.

Within all three sites, soils with the most *Russulaceae* fungi were more likely to have small whorled pogonias with aboveground shoots. Soils with fewer of those fungi were more likely to have orchids that had lain dormant for two to three years, and soils where there had never been any small whorled pogonias had the fewest *Russulaceae* fungi.

The scientists also showed that to bring orchids back from dormancy, it’s not enough to have just some of the right fungi.

“Before, I think we all were running on the assumption that it was just whether the fungus is present or not,” says Dennis Whigham, SERC plant ecologist and co-author. The SERC team showed that having a big enough supply of fungi is just as important as the type. However, what the “right amount” is may depend on the soil. In that, all three sites were different.

That leaves scientists another mystery to solve: how to guarantee enough fungi can thrive to support this orchid. McCormick and Whigham discovered in earlier research that some fungi like decomposing wood. Trees may matter too, as the fungi small whorled pogonias need form relationships with trees as well as orchids. But the answers to conserving endangered plants, McCormick points out, often lie beneath the surface.

“If you’re concerned about a species you’re trying to conserve and you’re only detecting what’s going on aboveground, you’re not getting the whole picture,” she says.

(Source: SHORELINES: Life and science at the Smithsonian Environmental Research Center)

Rock-Blake, Rachel, McCormick, Melissa, Brooks, Hope, Jones, Cynthia and Whigham, Dennis. “Symbiont abundance can affect host plant population dynamics.” [American Journal of Botany](#).

Orchids in Native American Medicine

The roots of the lady slipper were used in Native American medicine to bring down fevers, ease menstrual and labor pains and to counter insomnia and nervous conditions, and even to induce the dream state. The Chippewa placed the dried and remoistened root directly onto skin inflammations and toothaches to relieve discomfort. The most popular species was the yellow lady's slipper, *Cypripedium parviflorum*, favored by the Cherokee in Georgia all the way to the Ojibwe in Canada. The Menominee of

pubescens and *Cypripedium parviflorum* were listed in the United States Pharmacopoeia between the period of 1863 and 1916. It was used to treat hysteria, irritability, headaches, insomnia, epilepsy, and even restlessness in children. Unfortunately, lady's slipper was used so much that it became more and more difficult to find in the wild. Today, it is rare to stumble upon this beautiful flower.

The orchid's calming powers come from a chemical called cypripedin, a bitter, cinnamon-colored powder in its underground stems. One 19th century writer called it "rather unpleasant" with an odor "not very unlike that noticed when near a herd of swine." Another described the mixture as having "the color of a ruby port and the scent of fecal matter." Nonetheless, Western doctors prescribed it for hysterics, hypochondria, other "diseases of a nervous character," and even as relief for symptoms of sexual over-

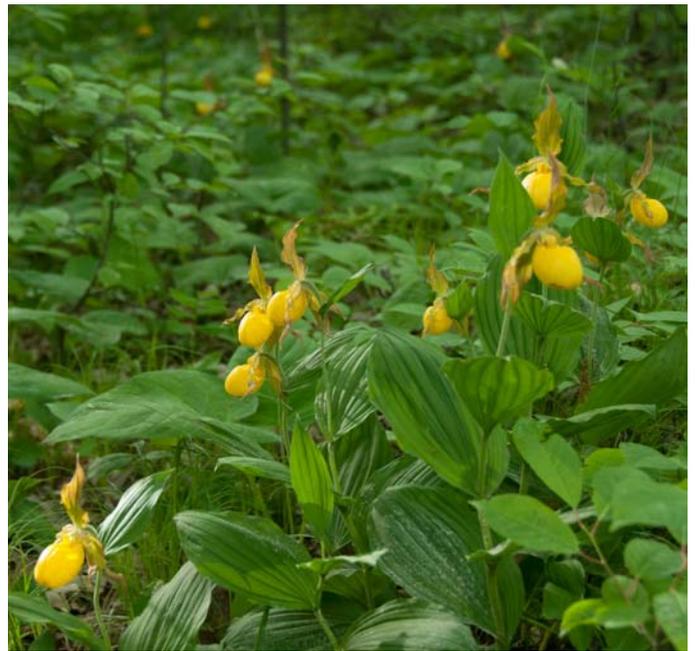


This plot of Showy Lady's-slipper [*Cypripedium reginae*] was spotted on the 2017 OGG Field Trip to Lake Mills

Wisconsin and the Penobscots of the Northeast also used the pink lady's slipper.

Native Americans generally collected the roots in the fall or early spring, dried them out and ground them into a powder. Since many of the active ingredients didn't dissolve in water, they often used some form of alcohol instead. Its use was largely limited to traditionally "feminine" diseases, which included hysteria.

When the European settlers came to North America they integrated the lady's slipper herb into their own healing repertoires as a sleep aid when valerian was not available. *Cypripedium*



In June, there were masses of Yellow Lady's slipper [*Cypripedium parviflorum*] in bloom near the Ridges Sanctuary

indulgence.

But even as its popularity grew among colonists, the orchid came to take on a more tragic mean-

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ing. Poets like William Bryant began using the moccasin flower as a symbol of death, both of people and, on a deeper level, of Native American culture:

There, I think, on that lonely grave,
Violets spring in the soft May shower;
There, in the summer breezes wave
Crimson phlox and moccasin flower.

Yet there was one exception. In 1879, 16-year-old Elaine Goodale Eastman wrote "The Mocca-

sin Flower," and made the orchid a symbol of isolation and distant pride:

Yet shy and proud among the forest flowers,
In maiden solitude,
Is one whose charm is never wholly ours,
Nor yielded to our mood:
One true-born blossom, native to our skies,
We dare not claim as kin,
Nor frankly seek, for all that in it lies,
The Indian's moccasin.



The Legend of the Moccasin Flower

Many winters ago, on the shores of the Great Lake, lived a young Ojibwa maiden. The only person left whole when a devastating disease struck her village, she set out in the dark of the winter dawn to a neighboring village to get healing herbs to save the sick. She wore her warmest robe, leggings and the fur-lined moccasins that her mother and grandmother had sewn.

Through the blowing snow she saw the faint lights of campfires in the medicine woman's village across the ice. Scrambling over the slippery pack ice, the maiden lightly danced across the frozen lake, trying not to listen to the cracking and groaning of the ice beneath her feet.

Hours later the villagers welcomed her when she reached the other side. Wrapped in warm beaver robes and fed, the maiden told her story. The medicine woman gathered her herbs, and the maiden refused the invitation to stay the night but insisted that she begin the return journey immediately. The maiden put the pouch of medicine around her neck and slipped down to the lake shore. She tried again to dance lightly across the drifted snow. It was too deep. She sank deeper with each step. Exhausted, she lay back in the snow panting for breath.

The snow whispered, "Be wise!" and she figured

out, like the fox, how to free herself. She swam like the otter through the deepest snow to the pack ice, losing her fur-lined moccasins along the way. Her feet were bare and cold. The sharp crystals of wind-blown snow cut her feet at every step. Soon her feet were red and raw and her footprints marked by blood.

She persevered and as the eastern sky began to lighten, she reached the opposite shore. The medicine she brought saved her village.

In the spring, when she returned to look for her moccasins, she found instead a patch of small pink-and-white flowers shaped just like moccasins. There was one for every drop of blood that had fallen from the maiden's feet on her journey to bring medicine home from the other side of the lake.

The Ojibwa people named the flower *ma-ki-sin-waa-lig-waan*. We call it *Lady's Slipper*. They bloom in May and June in the moist pine/hardwood forests of northern Wisconsin



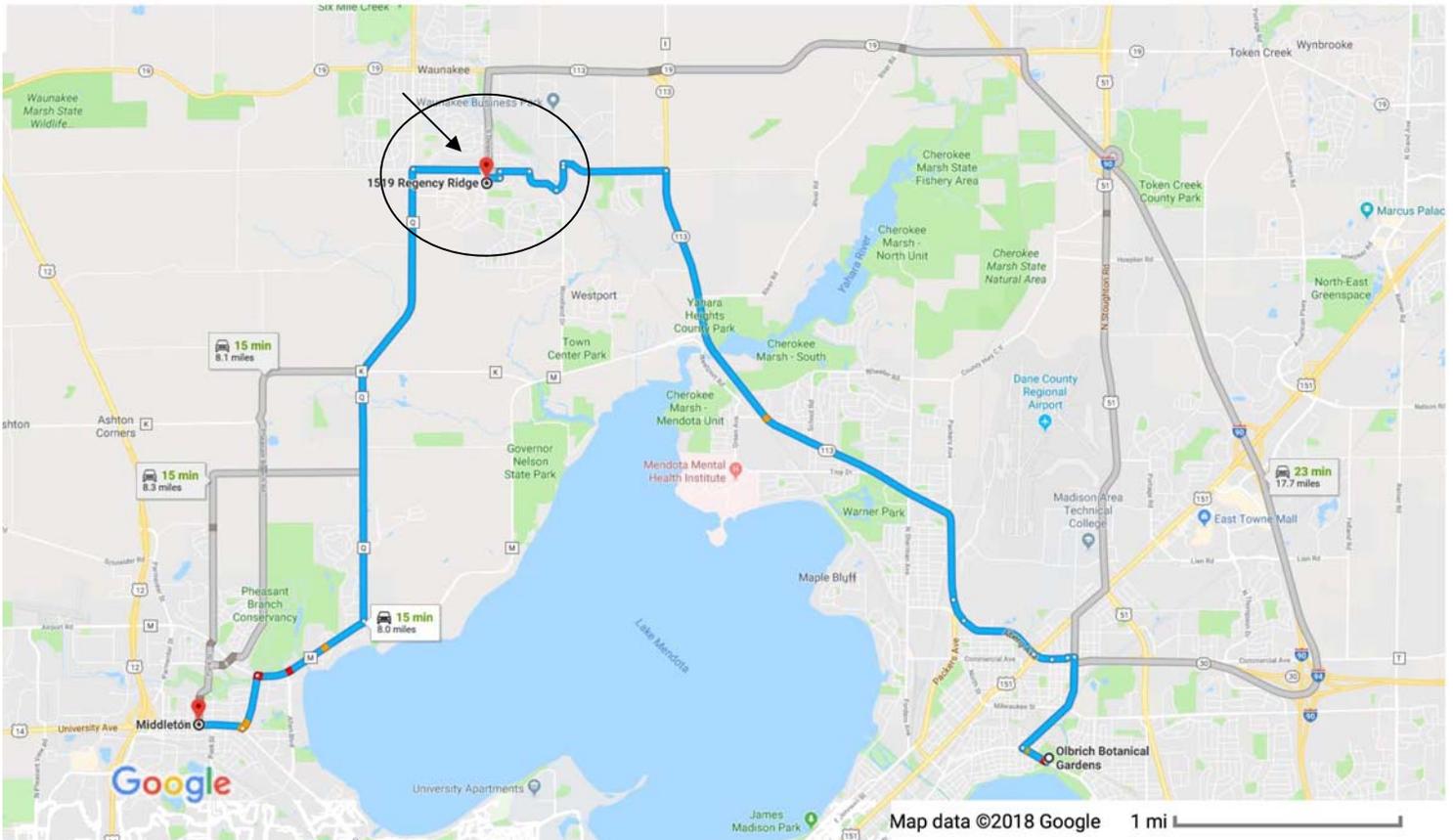
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Some pop up shelters be provided. If it rains we will just squeeze into the house and garage. Children are welcome but there are no child play sets or toys.

Contact information

Keith Nelson and Karen McKim
1519 Regency Ridge Rd
Waunakee 53597
608-438-5887
Regrets only



Examples of routes from the east and west sides of Madison