

February
2017

The Orchid Grower

Orchid Growers' Guild of Madison
Website orchidguild.org

FROM THE PRESIDENT, NEXT MEETING February 19th Gary Lensmeyer on 'How To Grow Deciduous Orchids'

Hi Orchid Lovers!

Orchid Quest is almost here!

Invite your friends and family to come to Olbrich. Even if they are not Orchid addicts like our members they can escape winter to a tropical wonderland and support our raffle and silent auction.

Look in the Friday, February 3rd edition of the *Wisconsin State Journal*. There will be an article all about OGG, Orchid Quest. And take a look at Terri Jozwiak's greenhouse/sunroom, too.

Friday, February 17th John Wirth, Curator from Olbrich Gardens will be on Wisconsin Public Radio's *Garden Talk* with Larry Meiller, so listen up at 11:00 A.M. and call in with your questions, too.

Our speaker for the February 19th OGG meeting at Olbrich Gardens at 1:30 P.M. is our long-time member Gary Lensmeyer who will give a presentation on 'How To Grow Deciduous Orchids.'

See you at Olbrich!
Lorraine



Meeting Dates

- January 15, 2017, Olbrich

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

Up-Coming Events

- February 4-5, 2017— Orchid Quest
- February 18-19, 2017 -- Batavia Orchid Society Show
- March 4-5 -- Northeast WI Orchid Society Show
- March 11-12 - Illinois Orchid Society Show

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This *Lycaste acquila* 'Détente' was blooming in the Bolz Conservatory last month

Board:

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**ALL HANDS ON DECK! Orchid Quest is HERE!
This weekend!
Set-up is Friday, 9 AM till 7-8 PM at
Olbrich Botanical Gardens.**

* Register your plants with Sue Reed (greed@chorus.net) by Tuesday. We cannot make an exhibit of 100 plants without ALL members bringing 1 or more plants. Plants need to arrive by Friday 11 AM. If you can't get them there by then call Lorraine 608-233-5559 or Keith 608-849-8728 and they should be able to hook you up with a member who lives near you to help.

HELP! Even after work on Friday because the lobby cannot be set up until Olbrich closes at 5. If you have stuff to unload or you are arriving after hours go to the garage entrance. [There will be food on hand to sustain you until your dinner.]

* CLERKS - we are in desperate need of clerks. We NEED nearly 20 more volunteers (!!!) for Saturday morning. There are clerking jobs that do not require extensive knowledge of orchids so tap friends and relatives. Email Denise (jrbaylis@tds.net) to add your name. We NEED the names ahead of time to assign teams. Show up on Saturday at 7 AM (Olbrich will open at 7), come to the upstairs meeting room (our usual room) for coffee and snacks, judging will begin at 7:45 AM and be done by 10 AM.

* A few people are needed at 9 AM on Saturday that are NOT clerking to volunteer at the OGG table in the lobby when the building opens to the public at 9 AM. All other members will be busy with clerking. Email Denise if you can do this.

*Even though we are not taking admission this year, we need more volunteers for Saturday or Sunday. Need a sit-down job? Need a non-plant job? Need a plant involved job? Email Denise and she will get

you what you need. On Saturday or Sunday if you have not signed up for something and you have time, just SHOW UP and ask if there is a need.

-- Terri Jozwiak

NAME TAGS

Need a new name tag for Orchid Quest? Carrie Weisman would be happy to make you a new one if you have lost yours. You can contact her at

carrie.wiesman@dwd.wi.gov

Volunteers needed for three Away Shows February and March 2017!

After the dust settles from Orchid Quest we're in immediate need of orchid enthusiasts to set up and take down the OGG exhibits at:

- Batavia Orchid Society Show, Feb. 18-19, 2017
- Northeast WI Orchid Society Show in Neenah, Mar. 4-5, 2017
- Illinois Orchid Society show at the Chicago Botanic Garden, Mar. 11-12, 2017

We could use at least one experienced member along with first-timers who'd like to learn the art of orchid displaying. Consider a spring get-away! Away shows are a great opportunity to meet other orchid lovers, learn from knowledgeable speakers, and see what other orchid societies are doing. See Sue Reed's excellent article "**Why Do We Go To Orchid Shows?**" in the OGG November newsletter for insights into the experience.

OGG will reimburse travel expenses (see the guidelines in the Away Show Reimbursement Policy posted on the OGG website under the Membership section. If you are interested or just want more information, please contact Away Show Chair Nancy Thomas (mikeandnancy@tds.net; 608-523-3607) and/or sign up on the sign-up sheet circulated at our monthly meetings.

Even if you're unable to go to a show, I encourage you to send your blooming plants to one of our upcoming away shows. Recently a new member sent her first plant to the Wisconsin Orchid Society show and was awarded a blue ribbon! So if you haven't considered it before, try sending your blooming plants to one of our upcoming away shows—we'll do our best to make it easy and rewarding for you.

Nancy Thomas

SOME BLOOMS FROM BOLZ ...



Cattleya trianaei 'Mariposa' x *C. trianaei* 'Valle del Suaza'

A Mystery of Hiding Orchids, Solved

Smithsonian scientists have discovered what triggers the rare small-whorled pogonia to awaken from dormancy

One of the rarest orchids east of the Mississippi, the small-whorled pogonia, emerges from a long dormancy when there is an abundance of specific fungi in the soil.

(Melissa McCormick)

By Jackson Landers

SMITHSONIAN.COM, JANUARY 19, 2017

Orchids can hide. Members of this diverse family of plants, known for their wildly attractive flowers, have long been recognized for their ability to enter extended periods of dormancy—sometimes for a year or longer. The plants take refuge underground, and with no leaves and no need for photosynthesis, the orchids rely on fungi for the nutrients they need to survive.

Scientists have long puzzled over what prompts the plants to switch from a state of dormancy and send up shoots. Now, a new study by a group of scientists from the Smithsonian Environmental Research Center in Edgewater, Maryland, explains how concentrations of certain fungus in the soil cause one North American species of orchid, the small-whorled pogonia, to awaken.

“This is an extremely rare orchid and as rare as it is, it's not as rare as we thought because it spends a lot of time hiding out underground,” says Smithsonian ecologist Melissa McCormick, one of the authors of the paper. “We had done some previous research into orchid mycorrhizal fungi. . . we were interested in whether the abundance of fungi in the soil was affecting not just where they are, but also when they emerge.”

The fungi turned out to be the key. Most orchids form symbiotic partnerships with par-

ticular species of fungi in order to survive. Orchid seeds lack the starchy endosperm that helps to feed the new sprouts of many other types of plants. Instead, the seeds depend on mycorrhizal fungus in the soil. They only send a shoot up when it is time to flower and reproduce. The small-whorled pogonia has this relationship with a mycorrhizal fungus in the Russulaceae family.

Smithsonian researcher Melissa McCormick says there is a link between the dormancy period of the small-whorled pogonias and the amount of a specific type of fungus in the soil. (Dennis Whigham)

McCormick analyzed the DNA of soil samples collected immediately adjacent to wild small-whorled pogonias, and used that data to calculate how much Russulaceae hyphae was present in the soil at each site.

When McCormick and the four other scientists involved with the research compared the abundance of Russulaceae in the soil with the frequency that the dormant pogonias awoke and sent up shoots, they found a clear relationship: Greater populations of the fungus meant that the rare pogonias were more likely to emerge. In other words, more of the right fungus in the soil helps the orchid to come out of dormancy more often.

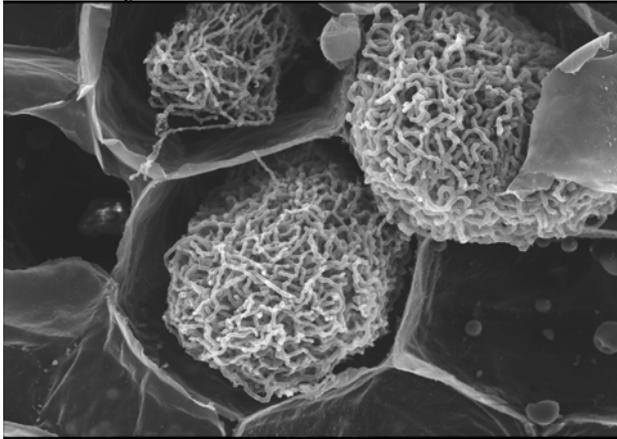
In the past, without the ability to analyze the DNA of a sample, it wasn't practical to calculate exactly how much of any one fungus was present. Even under a microscope, a lot of fungi look very similar. “In a sample of soil the size of a lima bean you have probably several hundred species of fungus,” McCormick says.

“This fungal aspect of all this work has been known since Darwin's time,” says Dennis

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Whigham, senior botanist at the Smithsonian Environmental Research Center and a co-author of the study. “But only in recent years have we been able to really go after it and look at the DNA of the fungi to see what they are.”



When fungi come into contact with an orchid root, they form pelotons, or coiled balls, that the orchid uses for nutrients. (Liz Kabanoff)

Some of the showiest orchids from tropical regions have lent the impression that orchids are an exotic, tropical group of plants.



Paphiopedilum venustum shown by Jeff Baylis

But orchids are actually very widespread, even in the United States. “We have over 200 species and they occur in every state,” Whigham says. “About 60 percent of them are in trouble somewhere that they occur.”

The decline of many populations of American orchids prompted Whigham and others to help create the North American Orchid Conservation Center, based out of the Smithsonian Environmental Research Center. The center works with around 50 collaborators to preserve habitats and to bank seeds and samples of mycorrhizal fungi, and conduct studies like this one.

What does the fungus get out of this relationship with the orchid? Probably not much.

“All terrestrial plants on Earth have interactions with fungi,” Whigham says. Those partnerships are called ‘mutualistic.’ But almost all of the evidence indicates that in a fungi-orchid relationship, the orchid is a very needy partner.

OGG Orchid Pot Sales

- Small green square (2x2”h), 5 @\$1.00
- Small Clear square (2x3”h), \$.50 / pot
- Medium Clear square (3½x4”h), \$.75/ pot
- Medium Clear Round (4x4”h), \$1.00/pot
- Large Clear Round (6½x5”h), \$1.25/pot
- 3” Clay pot \$.50/pot

To order pots for delivery at the next OGG meeting, contact Sue Reed

greed@chorus.net



'Holiday' plants were distributed at the January meeting. New OGG member Joelle Thorne examines hers. On the right, *Oncidium ornithorhynchum* and *Oncidium Sharry Baby* (Jamie Sutton x Honolulu). Gary Lensmeyer was having trouble getting these to bloom so he stuffed them together in a pot and voila!



2017 January OGG Ribbon Judging

First Place

Gary Lensmeyer
Gary Lensmeyer

Jeff Baylis
Jeff Baylis

Second Place

Gary Lensmeyer

Oncidium ornithorhynchum
Phragmipedium Jason Fischer (Mem Dick Clements x *besseae*)
seedling
Paphiopedilum venustum
Brassocattleya Maikai 'Mayumi' (*nodosa* x *bowringiana*)

Oncidium Sharry Baby (Jamie Sutton x Honolulu)

UP-COMING EVENTS

- **February 4-5, 2017**—Orchid Quest, Olbrich Gardens, Madison, WI
- **February 18-19, 2017** -- Batavia Orchid Society Show, DuPage County Fairgrounds IL
- **February 25-26** - NEW SHOW Wisconsin Orchid Society and Milaeger's Home and Garden Stores, in the Expo Greenhouse at Milaeger's, 4838 Douglas Avenue, Racine, WI
- **March 4-5** -- Northeast WI Orchid Society Show, Neenah WI
- **March 11-12** - Illinois Orchid Society Show, Chicago Botanic Garden, Glencoe IL
- **November 8-12, 2017** -- 22nd World Orchid Conference, Guayaquil, Ecuador