# CENTRAL OHIO ORCHID SOCIETY



Reporter July 2022

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CentralOhioOrchidSociety.org



### PRESIDENT'S MESSAGE | July 2022

Happy Summer. Hoping everyone is enjoying the summer. There has been plenty of warmth and sunshine so far this summer. One of my highlights was having my Lc. Zip finally bloom a few days ago after several years of impatient waiting.

We do not have a meeting this month, but I am sure we will all be busy watering and fertilizing our orchids.

Next month, bring a plant to the meeting to repot. We will also have a sale table! 20% of sales for members will be given to the society, 30% for non-members. In addition, Dick Wells from Hilltop Orchids has graciously donated many Phalaenopsis orchids. I will bring some for the sale table. All the money for these plants will benefit COOS.

On September 17 from 12-4pm we will have our annual Potluck Picnic. It will be at my home. There will be more details in August on bringing food.

Exciting news... we have a venue for the fall show! The Polaris Mall. We will of course have displays and vendors, and a unique opportunity to share orchids with people. We will keep you updated as we start planning. We will need lots of volunteers!

We would like to hear about what type of classes, special interests, orchid information you would like to know about, and demonstrations you would like to have in the future. Please email me or anyone on the board.

Amy Stanley
COOS President

**REMINDERS:** Megan Osika will be coordinating a group purchase of Japanese Neofinetia (sold from the US). The website is <a href="https://seed-engei.com">https://seed-engei.com</a>

This **group purchase** is for **MEMBERS ONLY**. You may contact Megan directly by 7/26, with any questions or orders at <a href="Akiso914@gmail.com">Akiso914@gmail.com</a> or 937-307-5509.

**No meeting in July**, but in August we will have a repotting clinic! Instead, enjoy this reprint from the American Orchid Society:

# **AOS Monthly Checklist for July and August**

### Cattleya

Cattleyas this month require careful attention to their watering and fertilizing needs owing to characteristically high temperatures. Evaporative cooling is a must in areas of the country where it is effective. Where it is not (the more humid regions), care needs to be paid to proper venting to keep temperatures within reason. Bottom vents in conjunction with top vents provide enough rising airflow to help keep plants cool. Increased air flow lessens humidity and dries plants out more quickly, necessitating more frequent damping down and watering, in areas where high humidity is not a problem. Higher light and heat indicate more fertilizer. The growths your plants are making now are the source of this autumn, winter and spring's blooms, so applying adequate fertilizer this month is the best way to ensure future blooms. Higher temperatures and humidity may also lead to fungal or bacterial rot problems, so it is important to closely observe your plants for any early indication of problems. Pests are also at a high point this month for the same reason.

### Paphiopedilum

Cooling and air circulation are especially critical in these two months to prevent stress and avoid disease problems. Watering needs to be closely monitored to ensure that plants do not dry out. Warmer-growing hybrids will be at the peak of their blooming, with attention needing to be paid to staking of spikes. Look for water lodging in growths, which can rot emerging spikes and lead to the loss of the entire growth.

### Phalaenopsis

Most, if not all, potting should be complete by now. This month and next are when these plants achieve their maximum growth. This growth will be that from which they set their spikes for the coming season. The more leaves the plants grow, the better potential for spiking will be realized. Growers in cooler areas such as the Pacific coast have the advantage this month, should they choose, of cooling for early season spikes. Lots of heat and light call for liberal applications of water and fertilizer.

### Cymbidium

Summer can be the most rewarding season for cymbidiums. Growths should be coming strong now. The leaves of the new growths are best when they are broad and fairly stiff. The color should be a light green to nearly yellow. Early flowering varieties should be showing flower spikes, so move the plants into a cooler area with lower light. For midseason varieties, lower the dosage of nitrogen to assist in spike initiation.

### High-elevation Plants

For cooler-growing plants, such as masdevallias, other pleurothallids and the like, the next few months will be a challenge. During the hottest times, keep your plants more shaded and be sure to keep the humidity level much higher. Do not let plants dry out. Delay any potting until the weather cools.



Beallara Diana DUnn 'Newberry' is a good example of the colorful patterns that *Oncidium* intergeneric hybrids offer.

# Oncidium intergenerics

Many of the intergeneric crosses between odontoglossums and oncidiums, such as Odontocidium, Wilsonara and Colmanara, will be blooming now. Take special care to train the spikes for best floral display. Keep plants under fairly shady conditions. Watch for snails and slugs.



The *Philippine species, Euanthe sanderiana,* rewards growers with massive heads of flowers at the end of summer.

### Vandaceous

Plants will be growing quickly now and really enjoying the hot humid days so similar to their native habitat. Watch for pests though, as many of these also enjoy the same conditions as the plants. Check flower spikes so that they can extend unimpeded for the best flower presentation later.

The AOS thanks Ned Nash and James Rose for this essay.

# JUNE PLANT OF THE MONTH



Paph. lowii 'Mem. Agnes Hebling' AM/AOS x sib.

### **Grown by Justin Pepperney**

Justin grows his Paph. lowii under LED lighting in Orchiata mix in a 5" plastic pot. This species likes a lot of water and light. Justin waters twice a week, and feeds weekly with ½ tsp. of Miracle Gro 30-10-10 orchid food per gallon.

### **JUNE 2022 VIRTUAL SHOW TABLE**

CATTLEYA GROWN BY

1<sup>st</sup> Epicyclia Serena O'Neil Tracy Strombotne 2<sup>nd</sup> *Leptotes bicolor v. alba* Ken Mettler

PAPHIOPEDILUM GROWN BY

st Paph. lowii 'Mem. Agnes Hebling' x sib. Justin Pepperney

2<sup>nd</sup> Paph. lowii Justin Pepperney

3<sup>rd</sup> Paph. emersonii var. Huanglanae Justin Pepperney

PHRAGMIPEDIUM GROWN BY

Phrag. Inti's Tears Edna & David Markley

2<sup>nd</sup> *Mexipedium xerophyticum* 'Oaxaca' CBR/AOS Nancy Shapiro 2<sup>nd</sup> Phrag. Susan Kulhari Tom Hart

3<sup>rd</sup> Phrag. Living Fire Edna & David Markley

Other GROWN BY

1stMiltoniopsis Andrea WestJan Miller2ndMasdevallia Georgian FranczykTom Hart

3<sup>rd</sup> Bllra. Tropic Lily 'Hilo Space Ship' Dennis Eifel

PLANT OF THE MONTH GROWN BY

Paph. lowii 'Mem. Agnes Hebling' x sib.

Justin Pepperney

# CATTLEYA





**Epicyclia Serena O'Neil** Grown by Tracy Strombotne

# **PAPHIOPEDILUM**





Paph. lowii 'Mem. Agnes Hebling' x sib.

Grown by Justin Pepperney

# **PHRAGMIPEDIUM**





Phrag. Inti's Tears
Grown by Edna & David Markley

# OTHER



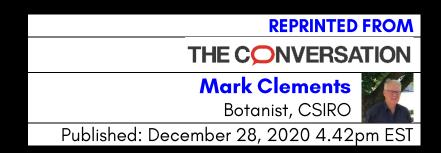


**Miltoniopsis Andrea West** Grown by Jan Miller



Rhizanthella speciosa from Barrington Tops. Mark Clements

# 'Like Finding Life on Mars': Why the Underground Orchid Is Australia's Strangest, Most Mysterious Flower



If you ask someone to imagine an orchid, chances are pots of moth orchids lined up for sale in a hardware store will spring to mind, with their thick shiny leaves and vibrant petals.



Orchids like this may be what comes to mind when you think of them, but there are actually more 30,000 different orchid species. Shutterstock

But Australia's orchids are greater in number and stranger in form than many people realise. Rock orchids, fairy orchids, butterfly orchids, leek orchids and even onion orchids all look more or less the same. But would you recognise a clump of grass-like roots clinging to a tree trunk as an orchid?

What about a small, pale tuber that spends its whole life underground, blooms underground and smells like vanilla? This is the underground orchid, *Rhizanthella*,

and it's perhaps the strangest Australian orchid of them all.

Even to me, having spent a lifetime researching orchids, the idea of a subterranean orchid is like finding life on Mars. I never expected to even see one, let alone have the privilege of working on them.

**Known for almost a century, but rarely seen** the family Orchidaceae is the largest group of flowering plants on Earth, comprising more than 30,000 species. Australia is home to around 1,550 species and 95% are endemic, meaning they don't occur naturally anywhere else in the world.

Rhizanthella has been known to science since 1928, when a farmer in Western Australia who was ploughing mallee for wheat fields noticed a number of tuber-like plants among the roots of broom bushes. Recognising them as unusual, he sent some specimens to the Western Australian Herbarium.



The species *Rhizanthella gardneri* occurs in Western Australia. Fred Hort/Flickr, CC BY-SA

#### <u>In 1931</u>, another underground orchid was discovered in eastern Australia at

Bulahdelah in NSW by an orchid hunter who was digging up a hyacinth orchid and found an unusual plant tangled in its roots. Three quarters of a century later, I was involved in conserving the population of *Rhizanthella* in this location when the Bulahdelah bypass was built.

And most recently, in September, I confirmed an <u>entirely new species</u> of underground orchid, named *Rhizanthella speciosa*, after science illustrator <u>Maree Elliott</u> first stumbled upon it <u>four years ago</u> in Barrington Tops National Park, NSW.

Elliott's discovery brings the total number of *Rhizanthella* species known to science to five, with the other two from eastern Australia and two from Western Australia.



The newly discovered species, Rhizanthella speciosa, found in Barrington Tops. Mark Clements

### All species are vulnerable

For much of its life, an underground orchid exists in the soil as a small white rhizome (thickened underground stem). When it flowers, it remains hidden under leaf litter and soil close to the surface, its petals think and pink, its flower head a little larger than a 50-cent coin.

Its pollinator is probably a tiny fly that burrows down to lay eggs in the orchid, mistaking the flower for a fungus.

Today, all *Rhizanthella* species are vulnerable: the species *R. gardneri* and *R. johnstonii* are listed as <u>critically endangered</u> under national environment laws, while <u>R. slateri</u> and and <u>R. omissa</u> are listed as endangered. The most recently discovered species hasn't yet been listed, but its scarcity means it's probably <u>highly vulnerable</u>.



Rhizanthella speciosa. The seeds of underground orchids are like ball bearings, and the fruits smell like vanilla. Mark Clements,

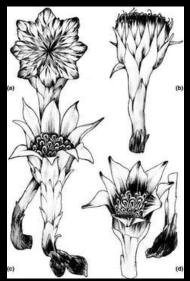
The conservation of the underground orchid is complicated. Knowing where it exists, and where it doesn't, is one problem. Another is knowing how to grow it.

All orchid species need a buddy, a particular soil fungus, for their seeds to germinate, and *Rhizanthella* must have its habitat to survive. Unfortunately, it's extremely difficult to just grow it in a pot.

### Seeds like ball bearings

We also know very little about the biology of Rhizanthella. But here's what we do know.

We've discovered the fungus that buddies up with underground orchids in Western Australia is indeed the same as that in eastern Australia. We know underground orchids tend to grow in wetter forests and that burning will kill them. And we know that after pollination, the seed head of an underground orchid takes 11 months to mature.



Floral structures of four described species of *Rhizanthella*: (a) *R. slateri* (b) *R. omissa* (c) *R. johnstonii* (d) *R. gardneri* . Chris J. Thorogood, Jeremy J. Bougoure et Simon J. Hiscock/Wikimedia, <u>CC BY-SA</u>

Most orchids have wind-dispersed seeds. Some are so light that drifting between Queensland and Papua New Guinea might be possible, and might explain its vast distribution.

The seeds of underground orchids, however, are like ball bearings and the fruits smell like the famous <u>vanilla orchid</u> of Mexico, whose seeds and pods add scent and flavour to everything from candles to ice cream.

In nature, bats disperse the seeds of the vanilla orchid. So we set up infra-red cameras in Bulahdelah as part of the bypass

project to find out what animals might disperse the seeds of the underground orchid. We observed swamp wallabies and long-nosed bandicoots visiting the site where *R. slateri* grows.

We suspect they disperse the seeds of underground orchids via their excrement, finding the orchid among truffles and other goodies in the leaf litter and soil of the forest floor.



Swamp wallabies and long-nosed bandicoots may disperse the underground orchid seeds, but they're locally extinct in WA. Shutterstock

In Western Australia, these animals are locally extinct. Without bandicoots and wallabies to transport seeds away from the parent plant, the natural cycle of renewal and establishment of new plants has been broken. This cannot be good for the long-term survival of the two Western Australian *Rhizanthella* species.

### An alien in the floral world

Conservation of the underground orchid might require <u>intricate strategies</u>, such as reintroducing bandicoots to a protected area, preventing bushfires and using alternatives to burning to manage the land.

An important first step is to find more populations of underground orchids to help us learn more about them.



A leek orchid. Shutterstock

Our work with DNA has shown, in the orchid family tree, *Rhizanthella* is most closely related to leek orchids (*Prasophyllum*) and onion orchids (*Microtis*).

But as you can see from the photo of a leek orchid above, it bears no resemblance to a subterranean flower, like an alien in the floral world.

### **COOS BOARD MEMBERS 2022**

PRESIDENT | Amy Stanley
VICE PRESIDENT | Jessica Badger
SECRETARY | Tom Hart
TREASURER | Cheryl Early
IMMEDIATE PAST PRESIDENT | Nancy Shapiro
TRUSTEE | Megan Osika
TRUSTEE | Troy Timbrook

### **COOS APPOINTED CHAIRS 2022**

AOS REPRESENTATIVE | Tom Hart
MAOC REPRESENTATIVE | Ken Mettler
PROGRAMMING | Tracy Strombotne
HOME SHOW | Dave Markley
AWAY SHOW | Ken Mettler
MEMBERSHIP | Megan Osika
NEWSLETTER | Wendy Chrisman
WEB DESIGNER + SOCIAL MEDIA | Wendy Chrisman
HOSPITALITY | Sandra & Terry Stohr
PUBLIC RELATIONS - Ad Hoc | Nancy Shapiro

## **UPCOMING HOSPITALITY VOLUNTEERS**

AUGUST | Sandra Stohr \* Need 2 more

SEPTEMBER |

### **COOS CALENDAR 2022**

January 20 – 2022

Kelly McCracken of High Desert Orchids

Artificial Lighting

February 17 – 2022

Barry Jones of Cincinnati Judging Society

Orchid Judging

March 17 - 2022 COOS Members How I Grow My Orchids

April 21 – 2022 Challen Willemsen Phalaenopsis

May 19 - 2022

Wade Hollenbach

Orchids to Grow Your Collection

June 16 – 2022 Justin Pepperney – COOS Growing Paphiopedilum July - 2022 No meeting

August 18 – 2022 Repotting Clinic TBA

September 17 – 2022 COOS Picnic TBA

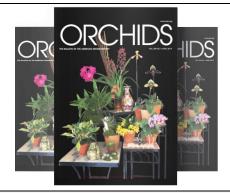
October 20 – 2022 Fred Bess Disa Orchids

November 17 – 2022 Awards Banquet TBA

## AMERICAN ORCHID SOCIETY CORNER



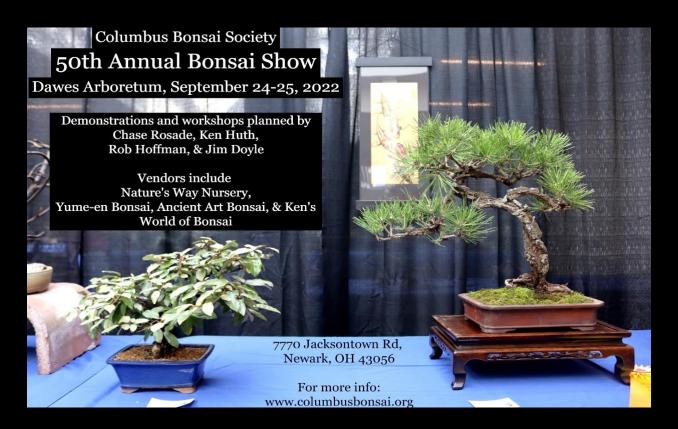




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### **EVERYTHING ABOUT ORCHIDS 2022-23**

### Free Open Course through Longwood Gardens



Whether you are new to orchids or a seasoned grower, Everything About Orchids will offer valuable insights from the experts at Longwood Gardens, one of the great gardens of the world.

#### **FREE Course Description**



Since 1922, orchids have been one of Longwood's premier plant

collections—and remain a cornerstone of the Gardens today. Learn more about Longwood's outstanding orchid collection and how you can grow and enjoy orchids in your own home with Greg Griffis, orchid grower, and Peter Zale, plant curator. You will learn about types of orchids, their cultural needs, and how to best grow and use these plants in your home, in floral designs, and even in the landscape! Greg's discussion about the care and culture of orchids provides an in-depth look at how Longwood cares for its collection. Learn tips and techniques for repotting and propagating orchids, and discover some unique native orchids.

The course also offers you opportunities to share your growing experiences with fellow enthusiasts. We look forward to learning together.

Course Details Start Date: February 24, 2022

End Date: August 23, 2022

Facilitator: Greg Griffis / Peter Zale Duration: 10 hours (self-paced)

Cost: FREE

**REGISTRATION** 

Video Lectures

**Interaction Opportunities** 

**Discussion Forums** 

Cost per student: FREE Open February 24, 2022 - August 16, 2022

https://opencoursesstore.d2l.com/product?catalog=Everything\_ab out\_Orchids\_Feb\_2022



Your Complete Online Orchid Resource Center

### Orchid Societies

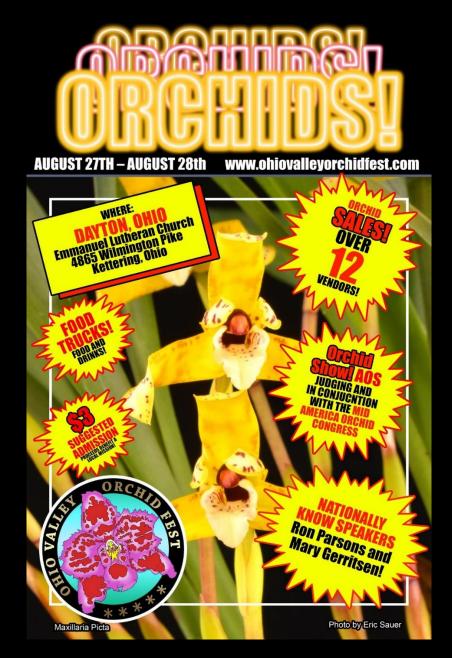
links to orchid societies around the world by region

Please note: Many of the Society sites have information on culture, plants of interest in the area and other helpful information. They are well worth "checking out."

### Regions:

North America | Central & South America | Europe Africa | Australia & the Pacific | Asia

https://www.orchidmall.com/society.htm



http://www.ohiovalleyorchidfest.com/

The upcoming Mid America Orchid Congress meeting is being held in conjunction with the Ohio Valley Orchid Fest. We would love to have as many orchid enthusiasts attend this year!

We would like to formally invite you and your society members to **the Second Annual Ohio Valley Orchid Fes**t from **August 26-28** in Kettering (Dayton), Ohio.

Registration is open!!

There will be lots of orchid related fun planned for this year, so we hope you'll join us! We're also live streaming the speakers for societies for those that can't make it.

See the registration form and website for details: <a href="www.ohiovalleyorchidfest.com">www.ohiovalleyorchidfest.com</a>

Some highlights for this year include:

- 12 Orchid Vendors Make sure to keep an eye out on the website for special pre-orders from the various vendors
- We will be selling potting supplies including pots, Orchiata, mixes, sphagnum moss and fertilizer
- We will again be doing the preview party Friday evening for all registrants to have first shot at the sales tables!
- We have two incredible speakers including Mary Gerritsen and Ron Parsons
- The speakers' new four volume set on Miniature Orchid Species is available for pre-order to be shipped to the show the <u>website</u> for more info!
- There will be an AOS judging of orchids and the show will again utilize a table style exhibit with orchids arranged by class
- There will be a great selection of food trucks this year on site for plenty of good eating
- · We will be having a Mid-America Orchid Congress live and silent auction
- There will be many opportunities to meet other orchid growers and see old friends
- There will be the opportunity to make your own orchid Kokedama
- We will again have the Sunday picnic with our church partner and host Emmanuel Lutheran with fun for the entire family!
- We will have an expanded Kid's Corner with fun activities all weekend
- A great goody bag for all registrants

We also have a block of rooms available at the Holiday Inn Express less than a mile from the Orchid Fest site– See the <u>website</u> for reservation details.



Eric Sauer
Co-Chair
Ohio Valley Orchid
www.ohiovalleyorchidfest.com