

NEWSLETTER



Editor's Note: The newsletter is distributed electronically (blind copied so addresses remain private) to all members for whom we have an email address. If you do not receive an emailed newsletter please notify me at thues@sasktel.net.

Upcoming Meeting Dates on Zoom:

Sat, Mar 27, 2021 @ 1:30pm
Guest speaker Marni Turkel, CA, topic TBD
Sat, Apr 24, 2021 @ 1:30pm
Guest speaker Dave Sorokowsky, Paph Paradise
"General Paph Culture"

SOS Executive

President: Tracey Thue
Vice-President: Vacant
Past President: Bob Lucas
Secretary: Donna Carlson-O'Keefe
Treasurer: Cheryl Grummet
Social: Shirley Keith
Lynn Campbell
Plant Orders: Heather Anderson
Cheryl Adamson
Resources: Don Keith
Tom Kondra
Librarians: Deb Huculiak
Kathryn Hiller
Newsletter: Sara & Tracey Thue
COC/AOS Rep: Tom Kondra
Speakers: Heather Anderson
Webmaster: Calvin Lo
Facebook: Sara Thue
Web Address: www.saskorchids.com
facebook: [https://
www.facebook.com/saskorchidsociety?](https://www.facebook.com/saskorchidsociety?)
Mail Address: SOS, Box 411
Saskatoon, SK

The February SOS general meeting will be held on **Sunday, Feb. 28th via Zoom beginning at 3:00pm**. Please see page 2 of this newsletter for a link to the Zoom meeting.

Our guest speaker will be Glen Decker, former owner of Piping Rock Orchids. He will be presenting: *"My Life with Slippers."*

ANNOUNCEMENTS

GENERAL MEETING AGENDA:

Join Zoom meeting - *family members are requested to join on a single device to help us stay under the maximum number of devices for our zoom subscription*

3:00 pm Presentation - Glen Decker

We are sharing our zoom meeting link with members of the Orchid Society of Alberta (OSA), and the Manitoba Orchid Society (MOS), for Glen's presentation. The OSA will be conducting their meeting business earlier via their own zoom link.

Approximately 3:45 pm - SOS Business Items

(Following Glen Decker's presentation)

- Recommendation by the Executive for approval for a Plant Order Committee, and a Speaker Coordinator
- Nomination of SOS member David Schwingamer as Acting Member of Plant Order Committee

Questions about plant orders

Problem corner

General feedback

PLANT ORDER COMMITTEE

Cheryl Adamson has resigned her position as a member of the Plant Order Committee. She has been on the Committee for over 15 years. We have had a lot of fun working together but definitely the highlights have been travelling to orchid shows in Alberta, picking up the orders from the vendors, and unpacking the orders and seeing what the members had ordered.

David Schwingamer has agreed to be an Acting Member of the Plant Order Committee. He has already been helping with the Ecuagenera order and I can see he'll be a real asset to the Committee.

Heather Anderson,
SOS Plant Order Committee

**You are invited to join the SOS General Meeting at
3:00 pm SK time, Sunday, February 28, 2021 by clicking on this link:**

Join Zoom Meeting

<https://zoom.us/j/98209116653?pwd=c3pWY0VpVVBCRVk1QlBMclpad1F3dz09>

Meeting ID: 982 0911 6653

Passcode: 881957

The meeting will begin promptly at 3:00pm.

PLANT ORDERS

Garden Slippers

Shawn Hillis

**Order Deadline March 30, 2021,
delivery in early to mid April.**

Garden Slippers, in Calgary, AB, specializes in Cypripedium orchids. These are hardy perennial orchids known as Lady's Slippers.

FROSCH SPECIAL OFFER: 3-for-1 Pricing
3, single-rhizome plants for \$60.00 CAD
(excluding GST and shipping).

**Plants are 1-2 years from flowering,
selected at random from a possible 15
different crosses.**

Individual, more mature rhizomes are available from the catalogue. The average prices for mature rhizomes range from \$60-75, so the price of the young plants is very attractive.

The website price list is current.

The rhizomes will need to be transplanted right away; once they are taken from the garden some will begin to come out of dormancy. They will be hardened off and ready to transplant. The planting site should be selected before receiving the plants.

gardenslippers.com and Frosch's website cypripedium.de have recommendations & instructions on where and how to plant, and much more culture information. The price list circulated to the SOS membership includes GST and shipping, and has some recommendations by Shawn Hillis.

ECUAGENERA

Order Deadline Feb 19, 2021

Dave Nixon with the Orchid Species Preservation Foundation (OSPF) is coordinating this order. Due to the size of the order it qualifies for a 15% discount. If you sent a pre-order to Heather, she will contact you with your total owed as soon as she receives the invoice from OSPF. Payment can be made to Heather in cash, personal cheque made out to SOS, or by e-transfer to Heather.

The orchids will be shipped to Edmonton from Ecuador and OSPF volunteers will sort and repack our plants. A big thank you to Dave Nixon who will drive the plants to Lloydminster and hand them off to Tom Kondra, who quickly volunteered to drive to Lloydminster and deliver the plants to Saskatoon! Thank you Tom. Heather will contact people to arrange for pickup from her house.

Paph Paradise & Gold Country Orchids

Orders have been submitted.

Heather will receive the invoice prior to plants arriving in April. Those of us who have placed orders will be charged the cost of the plants in USD + 15% for documentation & shipping. Heather will contact us for payment in cash, cheque or e-transfer.

Orchids will be shipped in mid April to Calgary and FOS member Ross Otto will ship our orchids to Saskatoon. The Calgary-Saskatoon shipping will be divided between plant orders and Heather will collect this at the time of plant pickup.

SPEAKERS PROGRAM

Glen Decker, former owner of Piping Rock Orchids, has been growing orchids for over 40 years. He holds the degree of Associate in Applied Science in Ornamental Horticulture. Glen was the previous chair of the American Orchid Society's Publications Committee and a past Director of the Orchid Digest Corporation. The numerous AOS awards that Glen has won include the Butterworth Prize, Nax Trophy, WW Wilson Award, and the Carlyle A. Luer Award. He has appeared in Martha Stewart's Better Living Magazine and on a PBS television special "Orchid Delirium." Glen also has many writing accomplishments, including the Slipper section of the Brooklyn Botanic Garden's "The Best Orchids for Indoors." He was the technical editor for the book *Orchids for Dummies*, and he has written many articles on *Paphiopedilum* and *Phragmipedium*, which have been published worldwide.

Glen's presentation is called, "My Life with Slippers." He says, "it is my journey to see slipper orchids around the world including Peru, Ecuador, and through Europe, and the things I've learned about growing them. The lecture will include some history, travel, culture, and stories about the people within our obsession."



Paphiopedilum Dot's Spots (Dot's Delight x Vogue Wonder)

Subfamily Cypripedioideae

Photo: Paph Paradise

<https://paphparadise.com/product/paphiopedilum-dots-spots/>

REQUEST FOR TREASURER

Please consider putting your name forward for the Treasurer position (or for Secretary, in which case Donna Carlson-O'Keefe will switch to Treasurer).

LIBRARY

If anyone is interested in borrowing any library resources, please email Librarian Deb Huculiak hucuh@sasktel.net to arrange for pickup. Please include in your email message your name and a phone number for Deb to reach you. You can find a .pdf of the library holdings on our website. Available are books, magazines (AOS Orchids and Orchid Digest), pH meter, light meter.

JANUARY 2021 GENERAL MEETING MINUTES

recorded by Donna Carlson-O'Keefe

The January Zoom meeting was moderated by Orchid Society of Alberta and shared with Foothills Orchid Society and Saskatoon Orchid Society. Those who joined early watched the end of the OSA Show Table, commentated by Paul Paludet.

There were 69 participants from the three societies.

Because of the joint meeting, there were no announcements for our society.

Presentation: Terry Kennedy and her husband, Doug, are the owners of Orchids in Our Tropics in Stouffville, ON, and have been growing and showing orchids for almost 45 years. During all of these years, they have shared their hobby by working as volunteers and speakers with the Southern Ontario Orchid Society, the Canadian Orchid Congress, and the American Orchid Society, as well as other horticultural groups. Twenty-three years ago, their passion for orchids required them to move to their present home as their collection had outgrown their space. They have received numerous AOS awards and show trophies for their plants.

Terry Kennedy: "Dendrochilum: The Golden Chain."

Dendrochilums are known as the golden chain orchids. They are classified as belonging to the Family Orchidaceae, Subfamily Epidendroideae, Tribe Coelogyneae, and Subtribe Coelogyneinae. They are very closely related to *Coelogyne*. There are 15 other genera in Subtribe Coelogyneinae: *Coelogyne*, *Chelonistele*, *Pholidota*, *Pleione*, and *Panisea*. *Pleione* is unusual in that they are actually little bulbs and go through a dormant period. *Panisea* is a small genus, composed of only 2 or 3 small plants.

Dendrochilum was first described in 1825 by Carl Ludwig von Blume (1796-1862). The name comes from the Greek: *dendron* (tree), and *chilum* (lip). The flowers are small with a prominent lip and grow on many-branched inflorescences.

In 2001, Jeffrey Wood wrote that there were 263 species of *Dendrochilum*, while the Kew World Check List of Plants places the number at 391. The species are hard to tell apart because the flowers are so small.

Dendrochilum comes from Southeast Asia: Thailand, Vietnam, the Philippines, Malaysia, Indonesia. They grow at elevations from sea level to 1000 meters. They are mainly epiphytic or lithophytic; a few are terrestrial. The terrestrial species are generally the hardest to grow.

The Kennedys grow a lot of *Dendrochilum* because they do a lot of displays and *Dendrochilum* adds a flowing, gentle look to displays.

There are several good reasons for growing *Dendrochilum*. Different species like a range of temperatures, from cool to intermediate to warm. They like intermediate light, not as bright as *Cattleya*. They produce elegant chains of perfectly arranged flowers, no matter how you orient them to the light. They come in all sizes, ranging from tiny to large, robust plants. They are often fragrant, from a soft fragrance to a musky smell; some even attract flies, even though they don't seem to have much scent. They are relatively easy to grow.

Dendrochilum want lots of water when they are flowering and putting out new growth. Once the new growth is developed, they seem to sit dormant for several months, during which time they don't need as much water or fertilizer.

Terry then showed many slides of the different *Dendrochilum* species that they grow, and spoke briefly about east one.

Dendrochilum (Ddc) filiforme was the first one the Kennedys tried growing. They ordered 50 plants in bud for a show and the plants were so popular that they had to hide one to keep for themselves. It is relatively small and bloom in summer or fall, producing lovely chains of pale green to yellow flowers.

Ddc. glumaceum is honey-scented and the inflorescences look very elegant and feathery.

Ddc. smithianum is a tiny plant with stiff chains of golden flowers.

Ddc. parvulum is a small plant with white flowers but not much scent. The clone 'Tom's Favorite' CCM (Certificate of Cultural Merit) is a strong grower and is often divided and shared among orchid growers in the Kennedy's area.

Ddc. uncatum is a bit bigger, producing lots of flowers on longer inflorescences from a small (2") pot.

Ddc. stenophyllum is very small with 3" leaves and taupe-grey flowers. It is not one of her favourites but it produces lots of flowers, even though they are not very spectacular.

GENERAL MEETING MINUTES, CONT.

Ddc. luzonense is a small plant, but much more colourful. It, too, has lots of flowers.

Ddc. irigense has bright yellow flowers and a musky, medicinal scent. It is a medium size plant with a different arrangement of the flowers, sparser than most species.

Ddc. niveum has a slightly sweet scent. It is similar to *Ddc. glumaceum* but does not look as feathery.

Ddc. cootesii is one of Terry's favourites. Its sepals and petals are all curled back. They are usually coral in colour but can be green and white. The Kennedys grew a cultivar, 'Red Candy Corn' for which they received a CHM (Certificate of Horticultural Merit). It was yellow with an orange lip.

Ddc. bicallosum is usually coral with a beautifully spiralled inflorescence. There is also a white form. There is some confusion in naming this species, as there seem to be 3 quite different plants that are all labeled *Ddc. bicallosum*. They vary in shape and colour of the flowers.

Ddc. propinauum is another coral species with spiralled inflorescences on medium-sized plants. However, some taxonomists say that *Ddc. propinauum*, *Ddc. convallariaeforme*, and *Ddc. bicallosum* are all synonyms for the same species. However, Terry is not sure, as they all have different presentations, and the lips are a little bit different.

Ddc. oxyplobium has a dark oxblood-coloured lip (hence the name) and orange petals and sepals; quite spectacular. It flowers easily.

Ddc. yuccifolium is named because the leaves resemble those of the yucca plant. The leaves are narrow and very hard, with prominent veins - in contrast to the leaves of the previously-mentioned species, which are wide and quite soft without prominent veins. The sepals and petals are recurved to form a nice white-gold chain.

Terry used the slides to show how *Dendrochilum* blooms on the new growths, before the growths are mature. Once the flowers are gone, the growths will mature and produce the pseudobulb. Then they wait for the next new growth.

There are also needle-leaved *Dendrochilum*. They tend to have smaller flowers but more of them. Examples are: *Ddc. anfractum*, *Ddc. affine*, and *Ddc. tenellum*. There can be quite a bit of size variation in *Ddc. tenellum*. Terry showed a slide of a spectacular *Ddc. tenellum* 'January' specimen plant that had been shown at the World Orchid Congress in Florida. It was about 2.5 feet across and covered with hundreds of inflorescences, each containing 30-40 lovely yellow flowers.

Another example of a needle-leaved *Dendrochilum* is *Ddc. wenzelii*, which has red or sometimes orange or yellow flowers. It is more like a toothbrush than a chain, with very stiff inflorescences that tend to be shorter than the previously mentioned species. The brightly coloured flowers make for a very attractive plant. It generally blooms around February.

Ddc. arachnites has a nice yellow flower and interesting inflorescences, but it tends to climb out of its pots, so is not a favourite of Terry's.

Ddc. formosanum is better behaved, with a fuller flower in a bright yellow colour. The inflorescences are somewhat shorter but it is fun to grow.

Now we get to some larger plants.

Ddc. latifolium has wider leaves (thus the name) and longer inflorescences.

Ddc. magnum is almost a group of *Dendrochilum*. You can get a lot of different colours and they will all be *Ddc. magnum*. The distinguishing feature is a prominent bract from which the flower peeks out. Sometimes they are called "snake fangs" because of the way the petals and sepal peek out. These bracts stay on the branch after the flowers fall off, so the plant retains some interest.

Their *Ddc. magnum* 'Champagne' had more than 30 inflorescences and was awarded a CCM, and they were very proud of it. However, in October, 2010 or 2011, they were in Maui judging a show, and there was a *Ddc. magnum* 'Sunshine' that was nearly as big as the judges! This plant had been coming to the show for years, growing larger each year, but had never received so much as a CCM before. Upon Terry's suggestion, they judged it that year. It had 23,015 flowers on 307 stems and was awarded 96 points and CCE (Certificate of Cultural Excellence)! The owner said that after this show, the plant was going back to his greenhouse to be divided and would never be seen like this again.

Terry pointed out that the inflorescences on this plant weren't nearly as long as thrones on their own plant that had received a CCM. There is quite a variation between plants of this species and when a plant gets that big, you don't see the full effect of the beautiful chains because there are so many growths that they interfere and the chains can't come out.

Ddc. cayaganense and *Ddc. cobbianum* are also large plants. They bloom in spring, while the *Ddc. magnum* blooms in fall.

Some good reference books are *Dendrochilum of Borneo*, by Jeffrey J. Wood; *The Orchids of the Philippines*, by Jim Cootes; and *Native Orchid Species*, by Jim Cootes. There is also a *Dendrochilum* website, www.dendrochilum.com, that lists and describes the species.

Terry then invited questions from the meeting participants.

Q. You mentioned that *Dendrochilums* are comfortable with a wide range of cultural temperatures. What about water and fertilizer?

A. None of theirs get special care. They grow very much like *Cattleyas* in that they should be well watered with very good drainage. When you see them starting their new growth, it's very important to keep them watered. Once the growth matures, you can hold back on the water. Fertilized as you would other orchids.

Q. When should you divide them? With most orchids, they produce roots and then they flower, and the best time to repot is when they are growing roots. But it seems that these are different in that they flower and then they grow new roots, so when is the best time to divide?

A. *Dendrochilum* can be fussy about division. Sometimes it stimulates them to grow and sometimes it doesn't. Usually you want to have some lead growths in your division. The best time to divide is right after flowering, because they are still growing quite quickly at that time. The roots start growing right after flower occurs. Because orchids come from the tropics, they grow and flower at all times of the year, so you can't specify a certain time of year. You have to look at the plant, and when it is putting out new roots, that's the time to divide or repot.

Q. I used to grow a *Ddc. cobbianum*, which had 12-15 inflorescences, but it smelled so bad, like smelly running shoes, so I got rid of it. Are all *Ddc. cobbianum* that foul smelling?

A. There is variation in the scent of plants, so some may not smell as strong as others. Perhaps if you got another one, it might be more lightly scented.

However, we should remember that we all perceive smells differently and a scent that is very unpleasant to you, may be quite pleasant or innocuous to Terry. However, she has noticed that if *Ddc. cobbianums* are in shows, they tend to attract the flies. She once sold a *Phalaenopsis* to a gentleman who thought it smelled wonderful, although she couldn't smell anything. But the next day he brought the plant back and asked to exchange it because his wife couldn't stand the scent and wouldn't let him keep it.

Q. Many years ago, I bought a *Dendrochilum filiforme* 'Birthday Surprise' from you. It had long chains of very tiny flowers. A few years ago, I got one from another source that was labelled *Ddc. filiforme*, but had much shorter spikes with bigger flowers, up to 1/2" across. Are there different forms of *Ddc. filiforme*, or was the second one mislabelled?

A. The second one was probably mislabelled. *Ddc. filiforme* is distinctive in its flowering. They come in a range of colours, from green to yellow to almost white, but they all have very small flowers, very long inflorescences, and quite narrow leaves. They grow about 10" tall, and bloom August to October.

Q. What do you use for potting media, and do you use the same media for all the varieties you grow?

A. They use a bark mix with some sphagnum to retain moisture, with some charcoal mixed in. They use the same mix for all of them except that they use finer bark in the smaller pots, and coarser bark for larger pots. Terry adds Perlite; her husband doesn't. They will grow in just about anything; it's the watering that is important. This is the case with a lot of genera; you can use different media but you must adjust the watering so that the plant is getting the moisture it requires.

The moderator thanked Terry for her interesting presentation.

Adjournment 3:38pm.

ORCHID MARKET

Don Keith will continue to provide orchid supplies to SOS members, orders to be placed once monthly, by 7:00 p.m. on the Friday before the monthly meeting. Orders will be ready for pick up after 11:00 a.m. the Sunday following the monthly meeting. Please pay with exact cash, by cheque made out to the SOS, or pay Don by e-transfer. Email Don at donkeith@sasktel.net

For February orders, email Don by 9:00 p.m. Friday, February 26, 2021. He will have your order ready for pick-up from his house after 11:00 a.m. Saturday, Feb 27, 2021.

SOS ORCHID SUPPLIES

ITEM	DESCRIPTION	PRICE
Fir Bark	3L bag fine or medium (please specify)	\$6.00
Orchiata Pine Bark	3L bag fine, medium or med-coarse (specify)	\$6.00
Perlite	4L bag medium/coarse	\$4.00
Sphagnum moss, N.Z.	8L compacted 12L compressed	\$12.00 N/A
Grodan Grow Cubes	3L bag, 0.4" cubes 7L bag 0.4" cubes	\$5.00 \$10.00
MSU fertilizer	1 cup 13-3-15 for tap or RO water	\$5.00
Merit systemic insecticide	1 cup bag of granules	\$5.00
Oyster shells	1 cup bag	\$0.25
Inflorescence clips	Small, brown or green	10 for \$1.00
Rhizome clips	Small Med/large	\$1.00 \$1.25

ITEM	DESCRIPTION	PRICE
Clear Pots	2 1/4 x 2 1/4 square	\$0.50
	2 1/2 x 2 1/2 round	\$0.50
	2 3/4 x 2 3/4 round	\$0.75
	3 1/4 x 3 1/2 round	\$1.00
	4 x 4	\$1.25
Net Pots	4 1/2 x 4 1/2 slotted	\$1.50
	3"	\$1.25
	3.5"	\$1.25
	5"	\$1.50
	6"	\$1.75

SOS MEMBER PLANTS FOR SALE

For sale by Bob Lucas

robert.lucas@usask.ca

Phragmipedium Andean Fire

In bloom; another spike coming.
\$20



Phragmipedium Andean Fire



Paphiopedilum Katherine Norton

Paphiopedilum Katherine Norton

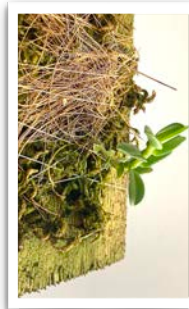
In bloom. \$10
First email; first served.

For sale by Calvin Lo

clo@qmed.ca

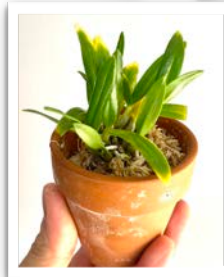
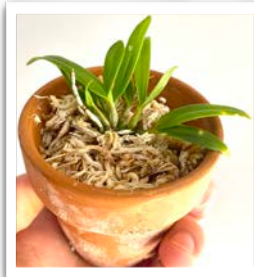
Angraecum oblongifolium

A rare miniature Malagasy angraecoid,
mounted on cedar. Not commonly seen.
Grown intermediate/warm. \$20



Dendrobium yulianiae

Small Dendrobium with white flowers.
Warm grower. Several seedlings near
blooming size out of compots a month ago.
6-7 available. \$10



Encyclia tampensis x Caularthron bicornutum

A really interesting primary hybrid. Pearl
coloured flowers with starry shape.
Division with some battered leaves, but
new growth emerging. Flower example
from the mother plant. \$7



For sale by Heather Anderson

heather.jane.anderson@gmail.com

Lockhartia oerstedii

2 divisions. Blooms are yellow. \$5 each



Lockhartia oerstedii



Lockhartia biserra



Lockhartia parthenocomos

Lockhartia biserra

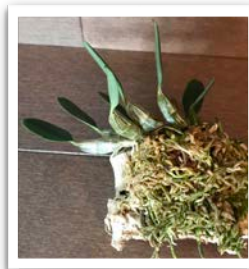
1 division. Blooms are yellow. \$7

Lockhartia parthenocomos

1 division. Blooms are yellow. \$10

Dendrobium Ueang Phueng

1 division. \$5



Dendrobium Ueang Phueng



Dendrobium Ueang Phueng
A picture from when it last bloomed

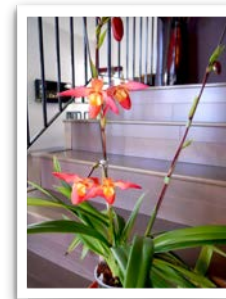
Phragmipedium Eric Young 'Slim Creek'
AM/AOS, CCM/AOS

1 division available. \$60

This orchid's claim to fame is its awards. When purchased from Chuck Taylor in 2013, the mother plant had been awarded Grand Champion twice in the previous 4 years at the OSA Show. Undoubtedly you admired Bob Lucas' picture in the January SOS newsletter, of his division purchased from Chuck. In Terry Letendre's pre-order list last fall, she had 2 divisions of this orchid for sale: \$125 and \$140.

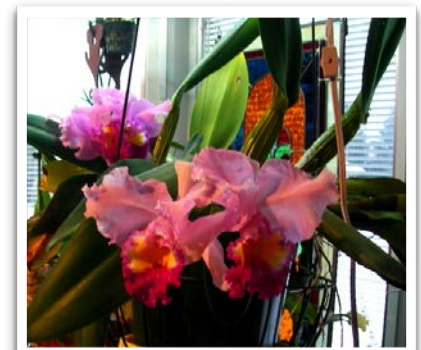


Phragmipedium Eric Young 'Slim Creek' AM/AOS, CCM/AOS
Division for sale (left); at last blooming (right).



WANTED: *Cattleya Wally Bliss*

I would like to replace the *Cattleya Wally Bliss* that I owned for about 15 years. I purchased this in the 1990s from an SOS member. At the time, I believe a number of SOS members owned a Wally Bliss. Mine ceased to thrive about 3-5 years ago and it tested positive for a virus; I sent it to orchid heaven. If any member has a Wally Bliss they'd like to sell to me, or a division, I would appreciate hearing from you. It was one of my first orchids and I would really like to replace it.



SHOW AND TELL

Grown by Calvin Lo



Thrixspermum saruwatarii



Dendrobium sanderae var. major



Dendrobium bellatulum



Dendrobium chapaense

Grown by Cody Hamilton



Phalaenopsis parishii

I purchased this from Cloud's Orchids this past summer. It's a mounted species, currently sitting in a plastic bag filled with sphagnum moss, to the side of my growing stands. The plant seems to like this as the spike picked up speed and many new roots started to grow.



Encyclia cordigera

I bought this two years ago from the Calgary Orchid Show. This is the first time reblooming for me. It has a very pleasant fragrance, strongest in the earlier hours of the day.

Grown by Bob Lucas



***Phragmipedium Grande* Maybrook HCC/AOS**

I received a division of this plant from Obthavy Phonsavath when he was downsizing. I grow it under lights in a mixture of coir fibre, coarse perlite and diatomaceous rock, in a semi-hydroponic fashion. I fertilize once a week with OR water at 120 ppm, and once a week without fertilizer.



***Paphiopedilum Memoria* Horst Bohne**

This clone should be named 'Tom Brady.'

I brought it in bloom to a meeting last February and it has bloomed sequentially ever since, sometimes with two blossoms. This is the 11th blossom and another is on the way. I really should cut off the inflorescence before it kills itself.

Paphiopedilum lowii

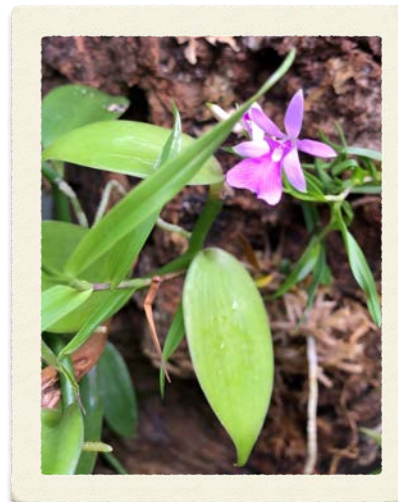
This is a sib cross made with one alba parent. The thing that accomplished is to reduce flower count. I grow my Paphs. under lights in orchita and fertilize once a week with OR water at 220 ppm, and once a week without fertilizer.

Grown by David Schwinghamer



Dendrobium Roy Tokunaga

Five blooms. I bought this division from Tracey Thue in October. It thrives with minimal attention under grow lights.



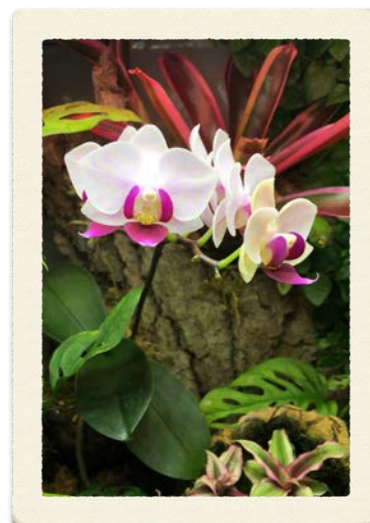
Epidendrum centropetalum

Three blooms. I was given this keiki by Cody Hamilton in October. It is grown in an orchidarium.



Epidendrum polybulbon

Two blooms. Also called *Encyelia polybulbon* or *Dimena polybulbon*. This was one of my wish list miniatures that I was very happy to buy from Terry Letendre. Grown in an orchidarium.



Phalaenopsis NOID

Five blooms. This miniature was my first orchid and a gift from my Great Aunt. The moss plug it came in destroyed most of its roots, but it's been happily rehabilitated in my small orchidarium.



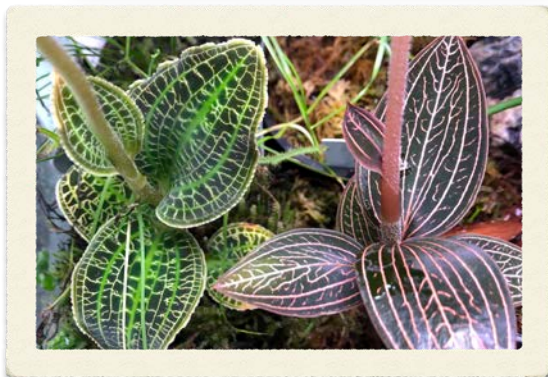
Masdevallia limax

Seven blooms. I bought this from Don Keith in September. It thrives with minimum attention in my orchidarium.

Macodes sandariana

One bloom spike. Admittedly, I grow jewel orchids more for their leaves than their blooms but the blooms are still a nice validation that I'm doing something right with them.

Many articles suggest that water on their leaves is terrible for them, but mine are sprayed 3 times a day in my orchidarium and are all very happy. Don't be afraid to get them wet, just give them good air circulation. The species has a huge bloom spike in comparison to the size of the plant.



Grown by Lynn Campbell



Cattleya Ruby Delight

I bought this from Fred Clark at his first visit. It has 7 blooms this time around, and such a nice red. It had 11 blooms last time. I grow it under T5 lights and an east window.

(Fred is my favourite, when he visits.)

Grown by Pat Randall



***Cymbidium* NOID**

I got this standard Cymbidium as a division from Yvette in 2016. It looks similar to one I sent in for Show and Tell a couple of months ago, but it is slightly different: greener petals and slightly smaller flowers. I grow this with the other one outdoors in spring, summer, and fall. I don't start it out too early in spring, but do leave it out in fall until temperatures drop to 0 or +1C. The cold temperatures are what initiate blooming on these standard Cymbidium. Then I bring it into the greenhouse where it gets fairly good light through the winter, but not excessive, due to the short days and snow on the greenhouse roof. It does need decent light in winter. In summer, it gets good bright light in morning and evening where I have it outdoors.



Rhyncolaeliocattleya* Betty Hamilton x *Cattleya percivaliana

The picture doesn't do it justice. It had 5 spikes and 7 large blooms in total. I got this from Don Hawker at an Edmonton orchid show in 2015. It has been a faithful bloomer every year. Don made this cross himself but has never given it a registered name. It is a reliable winter bloomer. With it being half *C. percivaliana*, that is no surprise; they usually bloom around Christmas. I grow this using my usual Cattleya method in pure medium bark, clear pot, and under lights for about 12 hours per day. I water when it is just dry.



***Rhyncattleanthe* Young-Min Orange**

I won this plant in 2017 for the Sara Nickiforick Memorial Award. It is a compact plant with blooms that are about 5.5 cm. The blooms start out a brighter yellow-orange, more like the peel of an orange. Over time they develop into a more intense reddish-orange. They last quite a long time.

This plant grows in medium bark under lights.



***Rhyncattleanthe Hawaiian Discovery* x
*Rhyncolaeliocattleya William Farrell***

I bought this from Fred Clark of SVO when he was our guest speaker in Oct. 2017. It was a small plant at the time and has only bloomed twice since, even though it is a compact but decent-sized plant. I know someone else had this plant as well, so if they have any tips for better bloom performance, I would love to hear from them. Mine grows under T5 LED lights and is potted in medium bark.



***Cattlianthe Doris and Byron* 'Christmas
Rose' HCC/AOS**

I bought this from Crystal Star Orchids in 2013 at the Edmonton orchid show. It was in bloom at the time and has bloomed every year since. It blooms in December or January, which is likely why it was given the cultivar name 'Christmas Rose.' It is a compact plant with 2-3 blooms per spike. Nicely scented, too. I grow it in medium bark under lights.



***Cattleya Orglade's Grand*
'Yu-Chang Beauty' AM/AOS**

I won this plant in Feb., 2009 in a draw at our SOS meeting. So it has been with me for a long time. This particular cultivar has been awarded an 86 point AM/AOS, which is a fairly high score. Little wonder, as in real life the blooms are stunning. Each bloom is 6 inches wide and they have a lovely fragrance similar to carnations.

It is sitting in my living room window while we experience -40C temperatures and -50C windchills outside. Such a treat.

Grown by Heather Anderson



Phragmipedium Grande

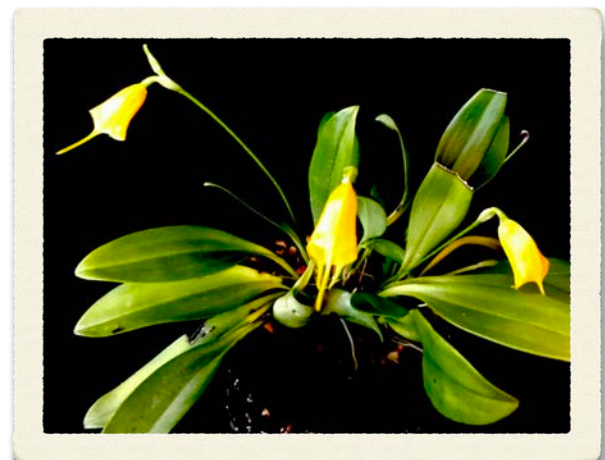
Grown under lights. It sits in a saucer of water and is watered and fertilized every 6-7 days. The mother plant had up to 5 blooms on 1-2 stems. Since I divided it 3 years ago, it has only had 1 bloom stem. This time it had 1 stem with 3 flowers.

I waited too long after the 3rd bloom appeared to take a picture, so I cut the spent bloom off. When I was setting up for the picture, it fell 2 feet off the stand and one of the pouches was damaged. After all of this abuse I took the picture anyway.



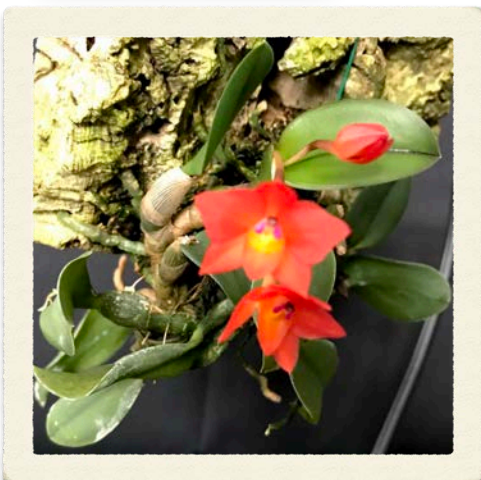
***Bulbophyllum macroleum* (yellow)
(*B. retusiusculum* f. *flavum*)**

This is grown in an orchidarium; it is misted daily and fertilized once a week. I've owned it for about 5 years. This is the first time it has bloomed.



***Masdevallia limax* aff.**

This is a plant that Don Keith purchased from Ecuagenera in summer, 2020. The plant was large and several SOS members were fortunate recipients of a division. It has been blooming ever since I received it, with 1-4 blooms. The picture doesn't do it justice; the blooms are deeper yellow than shown.



***Sophronitis cernua* 'H&R' x sibling**

Grown in an orchidarium; it receives high light, daily misting, good air circulation, and is fertilized once a week.

Grown by Alanna Danilkewich



Dendrobium Microchip x *Dendrobium Roy Tokunaga*



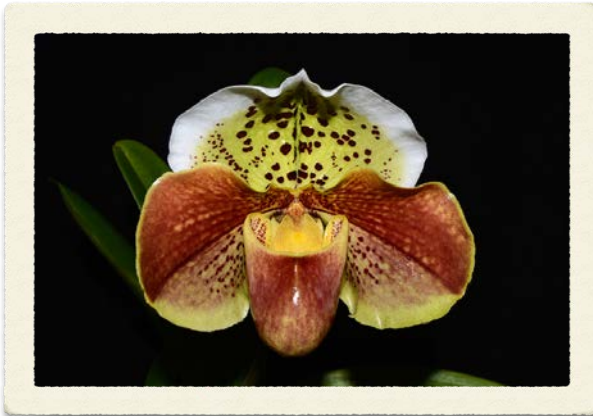
Paphiopedilum White Queen
'Enchanted Moon' HCC/AOS x
Paph. Tropic Thunder 'Majesty'



Phalaenopsis



Grown by Tracey Thue



*Paphiopedilum Bagley 'Mont Millais' AM/RHS
x Global Challenger 'Winchester'*

I purchased this from Glen Decker when he visited in the fall of 2018. I love these bulldog Paphs with big dark spots and red to brown pouches. The flowers last an incredible 5 months! I grow this in larger Orchidata in a cone pot, and water once a week. It grows in a bright east-facing window.



Paphiopedilum malipoense

I purchased this as a seedling from Forestview Gardens in 2009. I love this plant with its gorgeously patterned leaves. Can you imagine seeing it growing in its native China and Vietnam, in deep crevices of limestone mountains? The long spike lifts the flower out of these deep crevices to be found by its pollinator. A study in China found successful pollination of this species by bees and the authors speculate that the small purple spots in the pouch act as a guide, promising a honey reward.

When it was a seedling, I repotted it in fine bark mix every 6 months and the plant lived on the east facing windowsill. It flowered for the first time the winter of 2014 (no fragrance). It spiked again in 2016 but the bud blasted before it opened. Since 2016, it's been repotted into medium fir bark annually and placed in a shaded spot on the living room floor next to the plant stand. It was potted into medium Orchidata in 2019. This is its second flower; the spike started developing in September! And the flower is fragrant - I detect a subtle strawberry/raspberry jam with a bit of musty mold!



Paphiopedilum insigne

Here's another species that I'd love to see growing in its native habitat in India at elevations of 1000 - 1500 meters, on steep limestone outcrops near waterfalls.

I purchased this plant as a seedling from the society's plant sale table in 2015 and it has flowered twice since then. Like most of my Paphs, it is potted in medium Orchidata and grows on the east facing windowsill.



Laelia autumnalis

This plant came as a division from the Orchid Species Preservation Foundation's collection in 2015. This is its first flowering for me. I've adored this flower since I saw it pictured in an AOS magazine 20 years ago! The species is native to Mexico, growing at elevations of 1500 - 2600 meters, so prefers cool to cold temperatures with a winter dry dormancy. My biggest challenge - giving a plant a winter dry dormancy! It grows in the living room on the plant stand away from my watering wand, and then outside in light as bright as I can give it without burning. The flower has a subtle sweet fragrance.



Ceologyne multiflora

This plant came from Terry Letendre's sale table when I was in Edmonton for the OSA Orchid Fair in 2016. This is the first time it's flowered for me and wow! The flowers smell like homemade playdough - flour, water, and salt mixture, with a bit of mustiness. I find it quite pleasant; my daughter Katherine smells that, with a bit of cat pee on top! Not so pleasant.

The plant is potted in a sphagnum moss-lined plastic net pot with bark mix, set into a clay pot with holes; it sits on the plant stand in winter and outside on the shaded south-facing front doorstep in summer. I love the tropical look to the plants and am pretty happy I can flower this Indonesian species!

REVIEWS

The Little Big Plant Company Review by David Schwinghamer

The Little Big Plant Company is a small locally-owned plant shop located in the far northwest corner of Saskatoon. They stock a wide variety of hard-to-find plants including several species of jewel orchids, carnivorous plants, and *Vanilla planifolia*, as well as plant supplies such as Neem oil.

Positives: I've been happy with the quality of plants I have purchased from them, especially my *Ludisia discolor* x *Anoectochilus roxburghii*. If you're looking for affordable natural pest control, their Neem oil and carnivorous plants are cheaper than most online vendors, and *Nepenthes alata* makes an excellent fungus gnat trap. The final perk that I'll mention is that the shop takes custom plant requests and will bring plants in for you if they can find them from their suppliers. While they don't deal with many orchid vendors, they have excellent access to jewel orchids and carnivorous plants.

Negatives: The Saskatoon location is quite small and has a rotating stock so, if you're looking for something specific, I recommend calling before you make the drive.

30 - 3902 Millar Ave., Saskatoon
<https://www.thelittlebigplantcompany.com/>
(306) 203-2289



Nepenthes alata

Photo:

<https://carnivorousplantresource.com/the-plants/nepenthes-alata/>

THE ROOT TIP

Falling into the Quagmire of an Orchid Name

Tobi Fenton, Jasper, AB



Bulbophyllum retusiusculum

Photo: Belen Magtibay Nemeč
bluenanta.com

“What in the name of orchids is going on with orchid names?” That’s what I asked myself last month when a cursory online investigation revealed that *Bulbophyllum macroleum* is actually - probably, for now - the highly variable *Bulbophyllum retusiusculum*. But who says so? And why? What makes one name more correct than another? I know from reading that the plant world has been in continual upheaval since the system of taxonomy was developed. But what drives the turbulence? Why can’t we stick with the names we’ve learned and are comfortable with? And why should we even care what something is called? With this fistful of questions, I delved into a lesson in taxonomy and several other sciences that are related to the organization of plants. Pure curiosity drove me. And the fact that I’ve purchased one of Heather’s recent *Bulbophyllum* divisions and my abstract sequential brain *needs* to know what it is.

First, a few definitions.

Taxonomy: *taxis* (“arrangement”) + *nomos* (“law”); the biological classification of living and extinct organisms into a hierarchy of groups (taxa).

Binomial nomenclature: the formal system of naming each organism with two terms, genus and species epithet, in Latin. As in *Bulbophyllum retusiusculum*. (Because they are Latin, the binary names are always italicized. The genus name is capitalized.) This elegant system was designed and formalized by the Swedish naturalist Carl Linnaeus in the mid 18th Century.

Systematics: the science of reconstructing the evolutionary history of life. **Systematists** labour at this extraordinary enterprise by studying the distinctive characteristics of a species and how they are related to characteristics of other species, *through time*. The characteristics studied are morphological, anatomical, and molecular (genetic). Armed with this comparative information, systematists divide organisms into taxonomic groups. This is powerful. Not only are biological relationships revealed, but also biological diversity - or lack of it - a major concern of our time.

The International Association for Plant Taxonomy publishes a journal - TAXON - devoted to plant systematics and the understanding and value of biodiversity. Many articles have free access. Each issue contains a section called “Proposals to Conserve or Reject Names.” If you’re bored, poke your nose into that rabbit hole!

Phylogeny: the evolutionary history of a particular group of organisms. This is the primary goal of systematics and is mapped as a **cladogram** (“family tree”). The main precept of phylogeny is the idea that plants and animals of different species are descended from common ancestors.

Plant anatomy: the study of the internal tissues and cells of a plant. (Animal anatomy is the study of internal organs; histology is the study of animal tissues and cells.) E.g., xylem and phloem tissues of a root, responsible for transporting water and nutrients.

Plant morphology: the study of the physical appearance of a plant; the external form and structure; e.g., perianth (sepals and petals); column; stamens and pistils; pollen. These structures are important in the classification of orchids.

Stamen: filament + pollen-bearing anther

Pistil: stigma + style + ovary

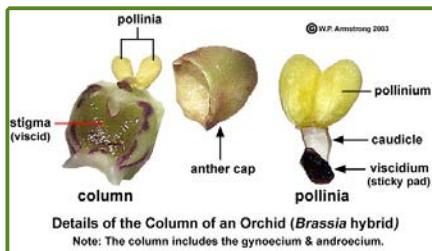
Pollinia: fused pollen that form the whole contents of an anther; this is shed as a united mass of pollen.

Monad: a pollen grain in the form of a single unit.

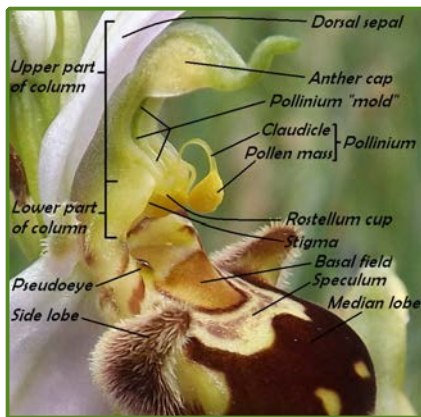
Column (synonym: *gynostemium*): the generally nose-shaped structure formed by the fusion of the **gynoecium** (pistil; “woman’s house”) and **androecium** (stamens; “man’s house”).

Rostellum: flap of tissue that projects down in front of the anther on the column, separating *androecium* and *gynoecium* to prevent self-fertilization. This is usually a modification of the stigma into a lobe.

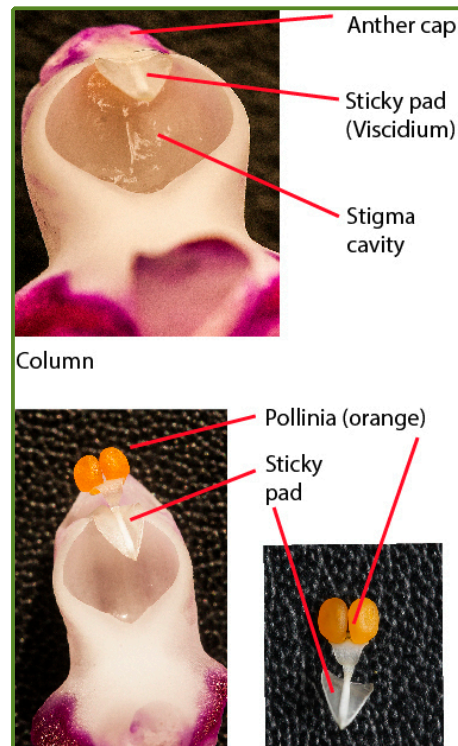
Viscidium: in advanced orchids, the caudicle (“stem”) of the pollinia is attached to the rostellum by a sticky pad, the viscidium.



<https://popmicrosoftnueva.blogspot.com/2019/12/orchidaceae-antheras-iguales-al-rostelo.html>



<http://wildnaturespain.blogspot.com/2013/01/structure-of-orchid-flower.html>



<https://botanycompanion.wordpress.com/lesson-12-monocots/>

Anyone who has studied botany or zoology will be familiar with a classification chart. When I studied botany (back in the post-iron/pre-internet age) there were seven taxa: Kingdom, Phylum, Class, Order, Family, Genus, Species. Now, because of the explosion of work in the intervening years on plant systematics, there are more than ten taxa, and Phylum is often called Division. I prefer using the term Phylum. Partly because I am stubborn; partly because I like the beautifully botanical sound of it. The current hierarchy of the taxa is thus: Kingdom, Subkingdom, Superphylum, Phylum, Class, Subclass, Order, Family, Subfamily, Tribe, Subtribe, Genus, Species. And Subspecies or forma. And with cultivated orchids, cultivars and grex. (Grex are all offspring from the same cultivated hybrid; from Latin *grex*, flock. How is that for poetry?)

At this point, I'd like to present a classification hierarchy for *Bulbophyllum retusiusculum*. Do you notice the use of “phylum” in the genus name? More poetry. (That’s the abstract part of my brain, giddy over the language; my need to lay out the hierarchy answers the demands of the sequential part.)

Bulbophyllum retusiusculum Rchb.f.1869

Kingdom: Plantae

Subkingdom: Tracheobionta (vascular plants: xylem and phloem)

Superphylum: Spermatophyta (seed plants)

Phylum: Magnoliophyta (Angiosperms - flowering plants)

Class: Liliopsida (Monocotyledons: flower parts in 3's; adventitious roots)

Order: Orchidales (or Asparagales)

Family: Orchidaceae

Subfamily: Epidendroideae (80% of orchid species)

Tribe: Podochileae

Subtribe: Bulbophyllinae

Genus: ***Bulbophyllum***

Species epithet: ***retusiusculum***

forma (*f.*): *f. flavum*; *f. brunneum*

The author abbreviation and date following the species name are used to identify the person who first published the botanical name, and when they did so. In this case, Heinrich Reichenbach, a German orchidologist, identified, described, and classified orchids sent to him at Hamburg University botanical gardens where he was director in 1863-1889.

In 2019, an article appeared in [Die Orchidee](#), a journal published by the German Orchid Society, titled, "Two new colorforms of *Bulbophyllum retusiusculum* Rchb.F. were found in Vietnam." The original article is, of course, in German, but the abstract is in English and there are many exquisitely detailed photographs showing colour variations and the dissected morphological structures. The discovery, collection, and formal description of these new forms reveals plant systematics in action!

Reading the synopsis of this article in the journal's blog page (see [Bulbophyllum.Info](#) in the References), prompted me to think about the challenges of scientific orchid collection. Contracting local guides; acquiring permits; navigating dense tropical forest; accessing plants in canopies where small epiphytes can be easily overlooked, especially if they are not in flower; meticulously gathering, labelling and packaging live specimens for transport to the laboratory: how easy it could be to mix something up, even with 21st Century technology at your disposal.



Bulbophyllum retusiusculum f. *flavum*

Photo: Nguyen Hoang Tuan



Bulbophyllum retusiusculum f. *brunneum*

Photo: Thanh Luan Nguyen

The challenges of accurately identifying and classifying orchids using historical herbarium plates is dramatically illustrated in a 2011 paper about *Coelogyne mossiae* and the confusion about its identity that was propagated by a series of errors since its discovery and description in 1894. Inconsistent description of the keels on the lip (which varies from species to species); comparing specimens from different locales and conditions (and therefore morphologically dissimilar); failing to recognize different leaf morphologies of different specimens; the lack of living specimens outside of South India that made it extra difficult to later "fact-check" with a live plant: these cumulative errors and difficulties led to *C. mossiae* being labelled incorrectly as *C. glandulosa*.

And this was (and still is) happening in a taxonomic landscape in flux, as systematists continue to discuss genus and species allocations. It's enough to drive a simple hobby orchidist to collect stamps. Or snow globes.

But if we remember that botanists, systematists, and taxonomists are human and so susceptible to error and personal bias, and that Family Orchidaceae is an enormous taxon of 25,000 species, and that for a long time traditional phylogenetics and taxonomy were based on intuition rather than rigorous scientific method, then perhaps we hobbyists can accept the occasional "mislabelled" plant and trust that a "truer" identification will eventually arise.

So how, you ask, do they decide whether an orchid belongs in one group or another? It depends on what studies you read, which taxonomist you speak to, which geneticist. In other words, there seem to be nearly as many hypothetical orchid classifications as there are scientists studying orchids! Which isn't too surprising, considering taxonomy, as mentioned above, is a human endeavour and species names and cladograms are products of that endeavour. The "true" or "real" family tree doesn't exist. It may never exist. Scientists, including taxonomists and systematists, value new information and knowledge. They aspire to challenge the way we see the world, and continually re-evaluate and reclassify when new information is added to their discipline. One taxonomist may accept data that is presented by a new study of orchid genetics, and use that information to argue for a new nomenclature (for example, changing *Laelia* to *Sophranitis* to *Cattleya*). Another taxonomist may believe that DNA analysis is still too new in plant systematics, and name changes are too preliminary, especially when there seem to be so many contradictions between DNA studies. The latter taxonomist is likely to emphasize morphological analysis and to urge other researchers to remember that genotype is only part of the puzzle of phenotype - the environment plays an equal role. For a hobby orchidist trying to get a feel for the science behind their orchids' names, it becomes clear that a genetics-morphology feud rages in the taxonomy laboratories of the world. A "true" orchid family tree will always be a moving target.

Nevertheless, it is interesting, if hazardous, to dip into the literature occasionally. (Like during a pandemic lockdown.) One example of early orchid classification based on morphology involves the structure of the column. Remember that in orchids the stamens, style, and stigma are fused into the characteristic column. Its position, shape, size, and detailed structures are highly variable between orchid groups. Taxonomists examine characteristics such as: position of the anther(s) and stigma in the column, the number of anthers, presence or absence of a viscidium, shape and position of the rostellum, and structure of the pollinia.

A very small group of orchids (Subfamily Apostasioideae, with 15 species in 2 genera) have 2-3 anthers. Slipper orchids (Subfamily Cypripedioideae) have 2 anthers. All other orchid subfamilies are monandrous - they have a single anther. Apostasioids have pollen that is loose and powdery. This is considered to be a primitive feature. In all other orchids, pollen is at least sticky, if not contained in packets. Epidendroids (like *Bulbophyllum*) have pollen that is packed into hard pollinia, which are deposited as an entire piece onto the stigma. This is considered the most highly evolved condition. In other monandrous orchids, many intermediate forms are found, from a single pollen grain to hard pollinia.

The evolutionary progression that has been hypothesized is thus:

Apostasioideae → Cypripedioideae → monandrous orchids (99% of all orchid species)

As you can see, the problem with using such a small number of morphological characteristics (i.e., the number of anthers and organization of pollinia) is that you end up with a stupendously large group of orchids!

Recent systematists have included other morphological features, in an attempt to create a more restricted classification at the Subfamily level, but these studies seem to be inconsistent and/or only informally analyzed.

Molecular study - specifically, gene sequencing - is becoming more important (despite the inevitable brouhaha amongst researchers) in the classification of flowering plants. Phylogenetic relationships are regularly being redrawn, especially as new orchid species continue to be discovered and described. So taxonomists must use new DNA data to classify previously known groups of orchids, but also determine how new species relate to those previous groups. (I'm starting to think a systematist's job is much like a meteorologist's: someone will always be unhappy.)

A much-cited paper from 2003 in [Natural History Publications](#) proposed an orchid classification with 5 subfamilies: Apostasioideae, Vanilloideae, Cypripedioideae, Orchidoideae, and Epidendroideae.

1. The most primitive group, **Apostasioideae**, is said to be a “sister” group to the other subfamilies. That is, the 2 extant genera, *Neuwiedia* and *Apostasia*, share the same common ancestor as the other groups; they are not themselves direct ancestors of the other subfamilies. *Neuwiedia* and *Apostasia* are terrestrial plants from southeast Asia and some Pacific islands. The column is fused only at the base of the filaments. Two or three anthers are held above the lip, and the stigma is terminal on the column. Pollen is powdery and loose (no pollinia).
2. **Vanilloideae** contains 24 genera, including 2 genera found in Canada: *Isotria* and *Pogonia*; all of these Canadian species are listed as endangered with COSEWIC.

Vanilloids have similar column structures to Epidendroids, but very different vegetative parts. The lip is either free or fused along the sides to the column. They are monandrous, with loose pollen that is shed as a monad or tetrad. (If the mature pollen unit disintegrates after shedding, it is usually a monad; if it stays united, it's a tetrad - 4 united grains).

Note: if you have never seen microscopic photos of pollen, be sure to explore the website, The Anther's Promise (link in the References). It is a library of pollen, curated by the University of Delaware. Pollen is the most extraordinarily beautiful structure in the plant world! (In my humble opinion.)



Neuwiedia veratrifolia
Subfamily Apostasioideae
orchidspecies.com



Isotria verticillata
Subfamily Vanilloideae
Photo: David Arbour
North American Orchid Conservation Center
<https://northamericanorchidcenter.org/slider/large-whorled-pogonia-isotria-verticillata-4/>



Mexipedium xerophyticum
Subfamily Cypripedioideae
Photo: Lourens Grobler
orchidspecies.com



Selenipedium aequinoctiale
Subfamily Cypripedioideae
Photo: Dr. Clark Riley
<http://www.orchidspecies.com/seleniaequinoctiale.htm>



Disperis capensis
Subfamily Orchidoideae
Photo: Colin Paterson-Jones
http://www.biodiversityexplorer.info/plants/orchidaceae/disperis_capensis.htm



Platanthera leucophaea
Subfamily Orchidoideae
Photo: https://www.fs.fed.us/wildflowers/plant-of-the-week/platanthera_leucophaea.shtml

3. **Cypripedioideae** are, obviously, the much-loved slipper orchids. Besides *Cypripedium*, *Paphiopedilum*, and *Phragmipedium*, this subfamily includes *Mexipedium*, a single-species genus from Mexico. It was first identified in 1990 as *Phragmipedium xerophyticum*, but was moved to its own genus in 1992. It is critically endangered in the wild. *Selenipedium* is a genus of slipper orchids from the Amazon. All six species are at risk in the wild and rarely cultivated. They are large plants (up to 16 feet tall!) with small flowers. Interestingly, Ecuagenera lists *Selenipedium* on its website, but no information is given.

Cypripedioids have 2 fertile anthers, one on either side of the column; the stigma is on the ventral (front) side of the column. A third, infertile, stamen is modified into a staminode, which is a shield that forces the pollinator to enter the characteristic pouch trap.

This group has experienced taxonomic controversy. Because of its primitive condition of having two anthers, some taxonomists have argued that it shouldn't even be classified as an orchid, that it should have its own family, Cypripediaceae. Thankfully, perhaps, for the sake of orchidists everywhere, recent genetic studies have resulted in the conclusion that it should remain in Family Orchidaceae.

4. Subfamily **Orchidoideae** contains plants with a terrestrial habit and monandrous flowers. The single erect anther is located at the terminal end of the column. The pollinia is granular and sectile (divided into sub-units larger than a tetrad). This is a large group that includes the African genera *Disperis* and *Disa*, the European *Orchis* and *Ophrys*, as well as the large North American tribe containing *Habenaria* and *Platanthera*.



Bulbophyllum retusiusculum

Subfamily Epidendroideae

Photo: Van Canh Nguyen

<http://www.bulbophyllum.info/news/zwei-neue-farbformen-von-bulbophyllum-retusiusculum-in-vietnam-gefunden>

5. **Epidendroideae** is the largest subfamily in Orchidaceae, with approximately 600 genera! These plants are mainly epiphytes or lithophytes. Most of the orchids grown by home hobbyists are likely from tribes in this subfamily: *Oncidium*, *Phalaenopsis*, *Cattleya*, *Vanda*..... and *Bulbophyllum*. The column is monandrous and the anther is connected to the column by a short filament. Pollen occurs in tetrads, usually in distinct pollinia that are attached to the sticky viscidium. The stigma is 3-lobed and also sticky.

The genus *Bulbophyllum*, and its close ally *Cirrhopetalum*, combine to be the largest orchid group of all. According to the American Orchid Society, at least 24 allied genera have been "lumped into" and "split from" *Bulbophyllum* over time. There are currently 2,000 recognized species of *Bulbophyllum*, but that will surely remain variable as long as there are so many close allies, and as long as there are taxonomists to study them. Compounding the uncertainty is the ongoing description of new species and natural varieties and colour forms. I suspect there are many more undiscovered species, hidden in the lush tropical and subtropical forests of the world, unaware of the botanical frenzy they are causing.

That idea pleases me. As I wrap up my dabble into the ferment of orchid taxonomy, I realize that I'm no closer to understanding why *Bulbophyllum retusiusculum* is not called *B. macroleum*. Would I like to know? Yes, of course, because the pesky sequential part of my brain urges me to know. I suspect the information is out there somewhere in a systematics database. Perhaps I'll keep hunting. But, ultimately, I'm happy to accept that *that* level of detail simply doesn't matter. I'm satisfied to know the scientifically-accepted name so that I can "correctly" label my plant and share information about it with others, and know we are talking about the same creature. Beyond that, the poetry in my soul is stirred by the mystery of a plant that defies absolute description.

References

The Anther's Promise. Honey Bee Behavior and Pollen Ecology Laboratory, University of Delaware.
<https://theantherspromise.com/glossary-of-terms/>

BULBOPHYLLUM.INFO

<http://www.bulbophyllum.info/news/zwei-neue-farbformen-von-bulbophyllum-retusiusculum-in-vietnam-gefunden>

"*Bulbophyllum macroleum* confirmed to be *Bulbophyllum retusiusculum*." Species Identification Task Force Submissions. March, 2009.
<https://speciesidentificationorchid.blogspot.com/2009/03/bulbophyllum-macroleum.html>

Characteristic Morphological Features

<https://www.britannica.com/plant/orchid/Characteristic-morphological-features>

"Cladistics." Plant Life Blog

<https://lifeofplant.blogspot.com/2011/05/cladistics.html>

Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

<https://www.cosewic.ca/index.php/en-ca/>

"Comparative Analysis of the Complete Plastomes of *Apostasia wallichii* and *Neuwiedia singaporeana* (Apostasioideae) Reveals Different Evolutionary Dynamics of IR/SSC Boundary among Photosynthetic Orchids." *Frontiers in Plant Science*, 04 October 2017.
<https://www.frontiersin.org/articles/10.3389/fpls.2017.01713/full>

Cypripediums for House and Garden, by Clark Riley

<http://cyps.us/selen/index.html>

Die Orchidee, Volume 5(02) 2019.

<https://orchidee.de/storage/pdf/epaper/zwei%20neue%20farbformen%20von%20bulbophyllum%20retusiusculum%20in%20vietnam.pdf>

"DNA data and Orchidaceae systematics: a new phylogenetic classification." *Natural History Publications*, January 2003.

https://www.researchgate.net/publication/234814296_DNA_data_and_Orchidaceae_systematics_a_new_phylogenetic_classification

Environment Canada. 2012. Recovery Strategy for the Eastern Prairie Fringed-orchid (*Platanthera leucophaea*) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. ii + 11pp. + Appendices.

<https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery-strategies/eastern-prairie-fringed-orchid-2012.html>

The International Association for Plant Taxonomy

<https://www.iaptglobal.org/>

Keys to Orchid subfamilies, Flora of China

http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=20509

Monocots. Botany Companion.

<https://botanycompanion.wordpress.com/lesson-12-monocots/>

"New species of *Bulbophyllum* (Orchidaceae) in the flora of Vietnam." *Phytotaxa* **369**(1): 1-14. September 2018.

https://www.researchgate.net/publication/327592897_New_species_of_Bulbophyllum_Orchidaceae_in_the_flora_of_Vietnam

North American Orchid Conservation Center

<https://northamericanorchidcenter.org/slider/large-whorled-pogonia-isotria-verticillata-4/>

"On the Value of Taxonomy, Phylogeny, and Systematics to Orchid Conservation: Implications for China's Yachang Orchid Reserve." *The Botanical Review* **76**, 165-173 (2010).

<https://link.springer.com/article/10.1007/s12229-010-9052-x>

Orchid Roots

<https://bluenanta.com/detail/information/?pid=27177&gen=25044&type=&role=>

"Origins and Affinities of Orchids." *Swiss Orchid Foundation at the Herbarium Jany Renz*, 2015.

<https://orchid.unibas.ch/index.php/en/orchidinfos/origins-of-orchids>

Plant Families of Puerto Rico and Florida Papo Vives

<https://popmicrosoftnueva.blogspot.com/2019/12/orchidaceae-antheras-iguales-al-rostelo.html>

Science Direct

<https://www.sciencedirect.com/topics/immunology-and-microbiology/cladistics>

"The Structure and function of orchid pollinaria." *Plant Systematics and Evolution* **222**, 243-269 (2000).

<https://link.springer.com/article/10.1007/BF00984105>

Structure of an Orchid Flower. Wild Nature of the Cantabrian Mountains, Spain

<https://wildnaturespain.blogspot.com/2013/01/structure-of-orchid-flower.html>

"The True *Coelogyne mossiae*." *The Orchid Review*, March 2011.

<https://www.rhs.org.uk/about-the-rhs/pdfs/publications/the-orchid-review/2011/march/coelogyne-mossiae.pdf>

"Variation and evolutionary transformation of some characters of the pollinarium and pistil in Epidendroideae (Orchidaceae)." *Plant Systematics and Evolution* **305**, 353-374 (2019).

<https://link.springer.com/article/10.1007/s00606-019-01575-5>