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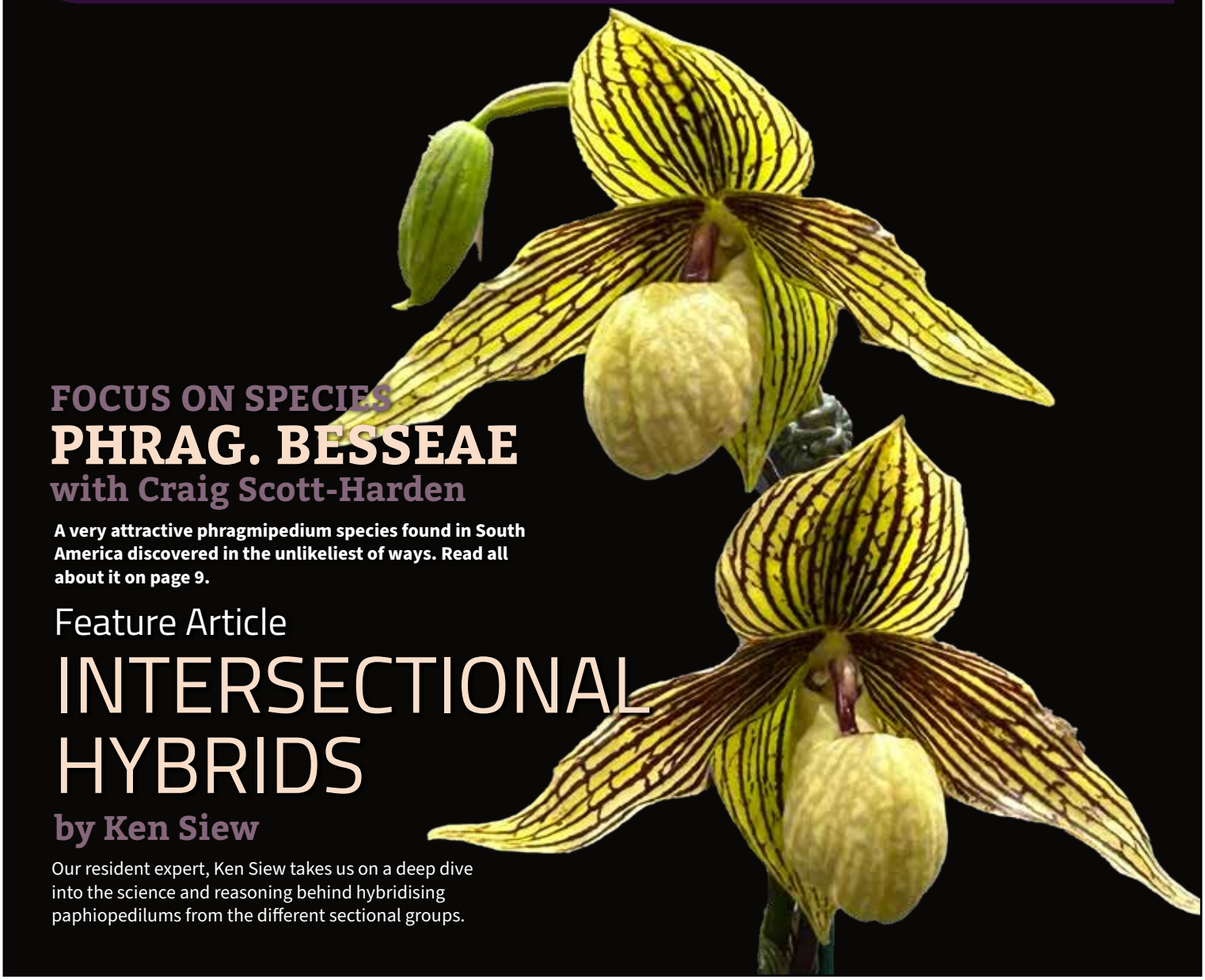
The Paphiopedilum Society of NSW Bulletin

PAPH. *illustrated*

NOVEMBER 2025



FOCUS ON SPECIES
PHRAG. BESSEAE
with Craig Scott-Harden

A very attractive phragmipedium species found in South America discovered in the unlikeliest of ways. Read all about it on page 9.

Feature Article
INTERSECTIONAL HYBRIDS
by Ken Siew

Our resident expert, Ken Siew takes us on a deep dive into the science and reasoning behind hybridising paphiopedilums from the different sectional groups.

www.paphsocnsw.org

paphnsw

The Paphiopedilum Society Of NSW

Meetings

3rd Wednesday of the Month

Ermington Community Hall
6 River Road, Ermington
NSW 2115

NEXT MEETING
November 19th at 7.30pm

ALL VISITORS WELCOME

PHRAGMIPEDIUM BESSEAE
Read more on page 9

OCTOBER CHAMPION HYBRID
Paph. Wossner Vietnam Moon – S. Tay

OCTOBER CHAMPION SPECIES
Paph. *rothschildianum* – B. Wong

PAPH. illustrated

The Paphiopedilum Orchid Society of NSW Bulletin

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FRONT COVER
Paph. *Harold Koopowitz ;*
Grown By: J&S Atwal
Photographer: Jane D'Olier

President's Report

We are now seeking nominations for our next Society Patron. Who do you think it should be?

Paph. *delenatii*; Photographer:Paphioman (Flickr)

November is shaping up to be another exciting month for our members, with our bi-annual auction taking centre stage! Please note that you must be a financial member to receive a bidding card.

If you'd like to submit plants for auction, kindly complete the attached form in duplicate and bring it along.

Don't forget to bring your growing competition plants for judging — this is the final month that contributes to this year's points tally.

Looking ahead, December will be our End-of-Year Celebration, so please bring a plate of your favourite food to share. During this meeting, we'll also announce the winners of the 2025 points competition.

Lastly, our esteemed Patron, Mr. Wally Rhodes, has expressed his wish to step down after 10 wonderful years of service. We sincerely thank Wally for his dedication in promoting Slipper Orchids and for his invaluable contribution as Patron of our Society.

We are now seeking nominations for our next Patron. Please reply by email with your nomination and a brief reason for your choice. If more than one nomination is received, a vote will be held at an upcoming members' meeting.

Trevor Yee

IN THIS ISSUE...

The members auction is just around the corner. I'm sure there will be some great plants up for grabs (as usual). Here is a Paph. Pilot that has been flowering constantly since last years auction!

OCTOBER MINUTES

The Paphiopedilum Society of NSW General Meeting. Wednesday 15th of October 2025 at the Ermington Community Hall, 6 River Road, Ermington, NSW.

President Trevor Yee declared the general meeting open at 8.00pm and everyone was welcomed.

MINUTES OF PREVIOUS MEETING
Dated 17 September 2025 included in the October 2025 Newsletter. Moved by Trevor Yee that they be adopted. Seconded by S. Tay.

GENERAL BUSINESS

UPCOMING MEETINGS
Nov – Members Auction (only financial members can bid)
Dec – Year End Xmas Party (bring a plate of food to share)

TONIGHTS PRESENTATION
Our October presentation was a members choice plant description. Several members were nominated to select their preferred plants off the Species and Hybrid bench and our esteemed experts gave a description and cultural advice.

GROWING COMPETITION
Paph. Winston Churchill x Laketta, Paph. Neridah x Mem. Teck Ying 'Yowie' and Paph. Lady Isabel. Please see the benching schedule in the monthly bulletin for reminders. November 2025 will be the next and final judging for this years point score.

RECOGNITION
AOC Conference at Woolgoolga, NSW

The winning recipients were given their certificates and prize monies.

Second Place – Table Top section
Champion Cypripedioideae
Eight Firsts
Seven Seconds
Eight Thirds

UPCOMING SHOWS THE CLUB WILL PARTICIPATE IN
Orchid Central – Condell Park – setup 16th Oct from 10am, pull down Sunday from 2pm.

Summer Orchid Festival – a benched show at Ermington Community Centre 13-14 December 2025. For more information, go to www.summerorchidfair.com.au

PLANTS OF THE NIGHT
CHAMPION SPECIES – Paph. rothschildianum – Bailey Wong
CHAMPION HYBRID - Paph. Wossner Vietnam Moon – Seong Tay

MONTHLY 5 MINUTE GROWING SEGMENT
The remaining Q&A's submitted back in March were reviewed and discussed prior to the Plant Description main presentation section.

NEXT MEETING
Nov – Members Auction (only financial members can bid)

All members were asked to return their chair to the back of the hall and tables into storage before the raffles were drawn

RAFFLE
The raffle was drawn and Seong was thanked for the wonderful plants provided for tonight's raffle.

MEETING CLOSED
Meeting closed at 10.00pm

VISITORS

A. Cullinan

NEW MEMBERS

NIL

APOLOGIES

C. Wong
J. McAuley
B. Ng
S. Lee-Joe
J. Robinson
R. Terrenal

JUDGES

K. Siew
C. Scott Harden
D. Law

Trainee judges were also invited to participate in the judging process.

RAFFLE PLANTS

1. Paph rothschildianum (Orchid Inn)
2. Paph kolopakingii var. katheriae (fma album) (OI)
3. Paph haynaldianum (OI)
4. Paph stonei x Joahnna Burkhardt (OI)
5. Paph Shin-Yi Williams x sanderianum (OI)
6. Paph philippinense fma. album (OI)
7. Paph hirsutissimum fma. album (OI)
8. Paph fowliei (OI)
9. Paph folwliei fma. album (OI)
10. Paph charlesworthii (OI)

OCTOBER MONTHLY BENCHING RESULTS

SPECIES OF THE EVENING
Paph. *rothschildianum*
Grown By B. Wong

HYBRID OF THE EVENING
Paph. Wossner Vietnam Moon
Grown By S. Tay

69
PAPHS BENCHED THIS MONTH

CLASS 1 - MULTIFLORAL SPECIES - SECTION PARDATOPETALUM

1st	Paph. *lowii*	S. Tay	[1]
2nd			
3rd			

CLASS 2 - MULTIFLORAL SPECIES - SECTION CORYPETALUM

1st	Paph. *philippinense var album*	B. Wong	[2]
2nd	Paph. *rothschildianum*	T. Yee	[3]
3rd	Paph. *philippinense*	B. Wong	[4]

CLASS 3 - SEQUENTIAL SPECIES

1st	Paph. *liemianum 'TOM#1'*	J&S Atwal	[5]
2nd	Paph. *moquettianum*	M. Hui	[6]
3rd	Paph. *liemianum*	J. Chang	[7]

CLASS 4 - BRACHYPETALUM SPECIES

1st
2nd
3rd

CLASS 5 - PARVISEPALUM SPECIES

1st	Paph. *delenatii*	M. Hui	[8]
2nd	Paph. *delenatii fma. album*	A. Mobbs	[9]
3rd	Paph. *delenatii var. dunkell*	J&S Atwal	[10]

CLASS 6 - PAPHIOPEDILUM SPECIES - PAPHIOPEDILUM

1st	Paph. *hirsutissimum var esquirolei 'Putney Pizzazz' AM/AOC*	T. Yee	[11]
2nd	Paph. *hirsutissimum var. esquirolei*	P. Nguyen	[12]
3rd	Paph. *hirsutissimum var. esquirolei*	J&S Atwal	[13]

CLASS 7 - PAPHIOPEDILUM SPECIES - SIGMATOPETALUM

1st	Paph. *urbanianum*	M. Yung	[14]
2nd	Paph. *argus*	T. Yee	[15]
3rd	Paph. *argus*	T. Yee	[16]

CLASS 8 - PAPHIOPEDILUM SPECIES - MINIATURE

1st	Paph. *fowliei*	S. Tay	[17]
2nd	Paph. *druryi*	J&S Atwal	[18]
3rd			

CLASS 9 - OTHER CYPRIPEDIOIDEAE SPECIES

1st
2nd
3rd

CLASS 10 - SPECIES SEEDLING

1st	Paph. *rothschildianum*	B. Wong	[19]
2nd	Paph. *hirsutissimum var. esquirolei*	D. Law	[20]
3rd	Paph. *hirsutissimum fma album*	J&S Atwal	[21]

CLASS 11 - COMPLEX HYBRIDS RED

1st
2nd
3rd

CLASS 12 - COMPLEX HYBRIDS YELLOW/GREEN

1st
2nd
3rd

CLASS 13 - COMPLEX HYBRIDS PASTEL, WHITE/PINK/CREAM

1st	Paph. Showboat 'Gala'	B&A Wunderlin	[22]
2nd			
3rd			

CLASS 14 - COMPLEX HYBRIDS SPOTTED

1st
2nd
3rd

CLASS 15 - COMPLEX HYBRIDS ANY OTHER COLOUR

1st	Paph. Southern Alps x Lippewunder	J&S Atwal	[23]
2nd			
3rd			

CLASS 16 - MULTIFLORAL HYBRIDS

1st	Paph. Primechild	T. Yee	[24]
2nd			
3rd			

CLASS 17 - BRACHYPETALUM HYBRIDS

1st
2nd
3rd

CLASS 18 - PARVISEPALUM HYBRIDS

1st
2nd
3rd

CLASS 19 - PARVISEPALUM x BRACHYPETALUM HYBRIDS

1st	Paph. Edithiae	J&S Atwal	[25]
2nd			
3rd			

CLASS 20 - MAUDIAE TYPE HYBRIDS - COLORATUM

1st	Paph. Hsinying Rubyweb x laserlight	J&S Atwal	[26]
2nd	Paph. Hung Sheng Bay	H. Myers	[27]
3rd	Paph. Doya Youbeautiful x Hsinying Ruby	T. Yee	[28]

CLASS 21 - MAUDIAE TYPE HYBRIDS - ALBANISTIC

1st	Paph. Gael 'Camira'	J&S Atwal	[29]
2nd			
3rd			

CLASS 22 - MAUDIAE TYPE HYBRIDS - VINICOLOR

1st	Paph. Shin-Yi Heart x (Hung Sheng Bay x Hung Sheng Magic)	J&S Atwal	[30]
2nd			
3rd			

CLASS 23 - NOVELTY HYBRIDS - SINGLE FLOWER

1st	Paph. Pilot	S. Tay	[31]
2nd	Paph. Imperial Jade x Golddollar	H. Myers	[32]
3rd	Paph. rungsuriyanum x Maudiae	J&S Atwal	[33]

CLASS 24 - NOVELTY HYBRIDS - MULTI FLOWER OR BUD

1st	Paph. Harold Koopowitz	J&S Atwal	[34]
2nd	Paph. Transvaal	B&A Wunderlin	[35]
3rd			

CLASS 25 - HERITAGE HYBRIDS

1st	Paph. Crossianum var. album	M. Drury	[36]
2nd			
3rd			

CLASS 26 - OTHER CYPRIPEDIOIDEAE HYBRIDS

1st	Phrag. Peruflora's Cirila Alca	J&S Atwal	[37]
2nd	Phrag. L'unique	J. Chan	[38]
3rd			

CLASS 27 - HYBRID SEEDLING

1st	Paph. Wossner Vietnam Moon	S. Tay	[39]
2nd	Paph. St Swithin	D. Law	[40]
3rd	Paph. Bellatino (James Bacon x Toyko Black Knight)	S. Tay	[41]

CLASS 28 - SPECIMEN

1st
2nd
3rd

CLASS 29 - NOVICE SPECIES

1st
2nd
3rd

CLASS 30 - NOVICE HYBRIDS

1st	Paph. Colomb	I. Luke & A. Lu	[42]
2nd			
3rd			


01


02


03


04


05


06


07


08


09


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11


12

[01] Paph. *lowii*

[02] Paph. *philippinense var album*

[03] Paph. *rothschildianum*

[04] Paph. *philippinense*

[05] Paph. *liemianum 'TOM#1'*

[06] Paph. *moquettianum*

[07] Paph. *liemianum*

[08] Paph. *delenatii*

[09] Paph. *delenatii fma. album*

[10] Paph. *delenatii var. dunkell*

[11] Paph. *hirsutissimum var esquirolei 'Putney Pizzazz' AM/AOC*

[12] Paph. *hirsutissimum var. esquirolei*


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[13] Paph. *hirsutissimum var. esquirolei*

[14] Paph. *urbanianum*

[15] Paph. *argus*

[16] Paph. *argus*

[17] Paph. *fowliei*

[18] Paph. *druryi*

[19] Paph. *rothschildianum*

[20] Paph. *hirsutissimum var. esquirolei*

[21] Paph. *hirsutissimum fma album*

[22] Paph. Showboat 'Gala'

[23] Paph. Southern Alps x Lippewunder


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[24] Paph. Primechild

[25] Paph. Edithiae

[26] Paph. Hsinying Rubyweb x laserlight

[27] Paph. Hung Sheng Bay

[28] Paph. Doya Youbeautiful x Hsinying Ruby

[29] Paph. Gael 'Camira'

[30] Paph. Shin-Yi Heart x (Hung Sheng Bay x Hung Sheng Magic)

[31] Paph. Pilot

[32] Paph. Imperial Jade x Golddollar

[33] Paph. *rungsuriyanum* x Maudiae

[34] Paph. Harold Koopowitz

[35] Paph. Transvaal


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[36] Paph. Crossianum var. album

[37] Phrag. Peruflora's Cirila Alca

[38] Phrag. L'unique

[39] Paph. Wossner Vietnam Moon

[40] Paph. St Swithin

[41] Paph. Bellatino (James Bacon x Toyko Black Knight)

[42] Paph. Colomb

SPECIES OF THE EVENING
Paph.rothschildianum
Grown by B. Wong


39

HYBRID OF THE EVENING
Paph. Wossner Vietnam Moon
Grown By S. Tay

Phragmipedium besseae; Photographer Hans Hillewaert

Craig's suggestions for successful slipper species

The story of the discovery of this species in 1981 has already gone down as Orchid Folk Lore. Many times the story has been told of Elizabeth Besse trying to find a suitable spot to visit Mother Nature when she stumbled upon this wonderful species. The full story is that Elizabeth Besse was on a Botanical expedition to Peru with Joe Halton & Harry Luther. (Sponsored by the Marie Selby Botanic Gardens in Sarasota Florida) At the time they were travelling between Tarapoto & Yurimaguas when the need arose to stop and visit nature, while on the side of the road she spotted the said Phrag species. Not being in flower at the time photos were taken, herbarium material was collected and some live specimens also collected, these were sent back to Marie Selby. The assumption was made that these plants were the first recorded specimens of ***Phragmipedium schlimii*** found on the east side of the Andes.

It is not recorded what was said at Selby when the first intense Red Orange blooms of these specimens flowered, being a man with a vivid imagination I assume it went something like OH GOLLY GOSH??!!!?? Well more or less, you be the judge. Whatever was said, the amount of time it must have taken to realise that this was a new species and something so very special, could not possibly be gauged on a normal watch.

Calaway H Dodson & Janet Kuhn described this new species in the AOS Bulletin in the same year as its discovery 1981, naming it in honour of its discoverer.

Unfortunately there is always a Dark Side to one of these wonderful stories. In about the same amount of time that it took to realise the importance of this species, the original site of discovery was wiped out by over collection and the said species is now considered to be extinct in this area. Thankfully it has since been discovered in more locations both in Peru & Ecuador. It is also a little bit strange that not long after it discovery, far more plants than could have ever been collected from this original site started turning up for sale, indicating that the South American nursery men may have in fact known about its existence well before hand.

One of the highlights of my life is that I can say I have seen these spectacular plants growing in situ in Peru, only 20 years after its discovery in 2001. Here they grow precariously on what appears to be unstable conglomerate of boulders on the steep slopes of a narrow gorge, with a small river at its base. Small blotches of red can be seen dotted everywhere amongst the dense brown & green hues of the cliffs. This is very telling on the required growing needs for this species. On these surfaces the plants grow and anchor themselves into the moss filled crevasses, this stays wet almost all year as the water seeps down through these cracks keeping the plants roots wet for most of the year

Many hybrids have been made using Phrag besseae as one of the parents, but to date as far as I am concerned none have rivalled the sheer intense colour of this magnificent orchid. And the morel to this story? Next time you're visiting Mother Nature keep your eyes open you never know what you might be peeing on and what you might find.

Craig Scott-Harden

FOCUS ON SPECIES

Phrag. besseae

ADVANCED	MICROPETALUM	RARE
DIFFICULTY	**SUBGENUS**	**OCCURRENCE**
MODERATE SHADE	COOL 17-20 °C	50-70%
LIGHT	**MEAN TEMP**	**HUMIDITY**

DESCRIPTION

This very attractive species is found on the eastern slopes of the Andes from northern Peru to southern Columbia. It grows under semi-shade on or beside moist rock faces at an altitude of 1000m. The straplike leaves are up to 22cm long and 4cm wide. The erect inflorescence is often branched and up to 60cm long. There are several flowers about 6cm across, that open successively, with usually only one open at a time.

DISTRIBUTION

FORMS

Phrag. *besseae* var. dalessandroi

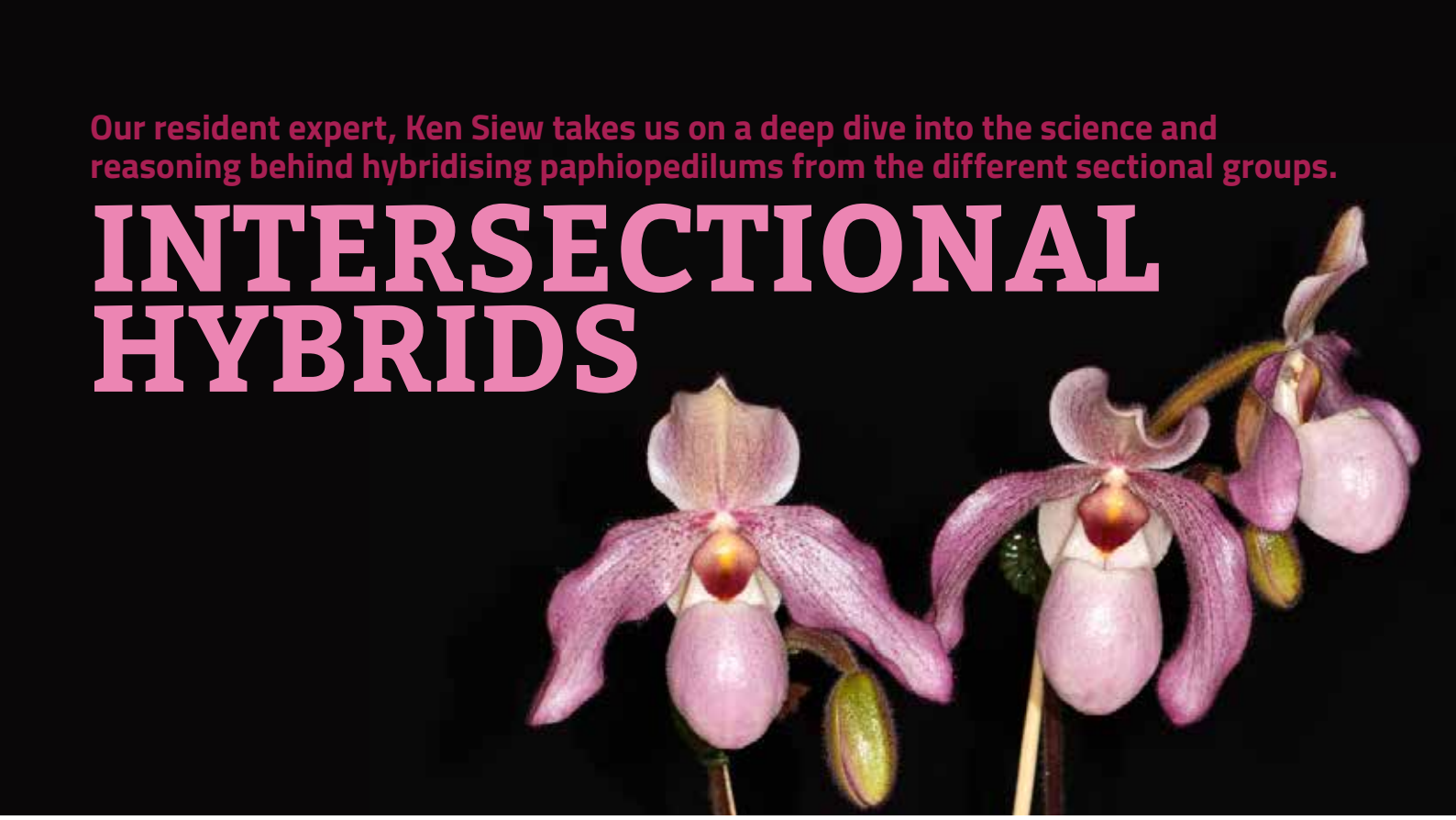
Phrag. *besseae* fma. flavum

ETYMOLOGY

Named in honor of Mrs. Elizabeth Locke Besse who not only found the first plant of the species but has contributed substantially to botanical exploration in the neotropics.

Our resident expert, Ken Siew takes us on a deep dive into the science and reasoning behind hybridising paphiopedilums from the different sectional groups.

INTERSECTIONAL HYBRIDS



Paphiopedilum Delophyllum (Paph. delenatii x Paph. glaucophyllum); Grown by S. Tay; Photographer: J. D'Olier

As a genus Paphiopedilum, represents the most diverse group within the Cypripoideae.

Natural Taxonomic Groupings

Paphiopedlums are uniquely Asiatic since the other group present in Asia, the Cypripediums are also to be found in Europe and North America. The remaining groups i.e. Mexipedium, Selenepedium and Phragmipedium are found in the Americas.

Paphiopedilum can be considered as comprising three subgenera namely:

- Brachypetalum (Concoloria)
- Parvisepalum (Chinese Paphs)
- Paphiopedilum which contain many sections

Definition: Natural Taxonomic Groupings

Groups or "Sections", comprise of species which are genetically closely related through evolution and thus tend to share many common features. However, some groups are larger and more diverse than others.

Groups can be quite closely related and conform to proximity of geographic locations e.g. Parvisepalum and Brachypetalum whose range overlap in southern China and Vietnam.

There are 96 to 110+ species falling into 7 main groups:

- Subgenus ***Brachypetalum*** (Concoloria)
- Subgenus ***Parvisepalum*** (Chinese Paphs)
- Subgenus ***Paphiopedilum*** which divides into further Sections:
    - Section ***Paphiopedilum*** (Type group - Indo-Burmese-Thai)
    - Section ***Barbata / Sigmatoipetalum*** Group (Maudiae)
    - Section ***Cochlopetalum*** (Sequential Multiflorals)
    - Section ***Pardalopedilum*** (Simultaneous Multiflorals)
    - Section ***Coryopetalum*** (Simultaneous Multiflorals)
    - Other postulated Sections such as Megastaminodium which accommodate new species such as Paph canhii or rungsuryanum

RIGHT
*Paphiopedilum Kevin Porter (*Paph. *micranthum* x Paph. *bellatulum)*

BELOW
*Paphiopedilum Gloria Naugle (*Paph. *rothschildianum* x Paph. *micranthum)*

WHAT EACH GROUP CONTRIBUTES TO BREEDING

PARVISEPALUM

Proportionally large floral size in relation to size of the plant. Proportionately large rounded pouches. Thin substance. Rounded segments, especially pouch. Sometimes circular outline, sometimes weak dorsal segments, sometimes round outlines sometimes triangular depending on species. Medium to long, thin wiry stems which easily clear the foliage. Cold tolerance, dry-tolerance. Except for the plain green-leaved species ***Paph emersonii*** and ***Paph hangianum***, a characteristic reticulated or mottled pattern on the leaves. Paph malipoense is responsible for most of the green base-colour from this group. Brilliant yellow colour derives mostly from ***Paph armeniacum***.

BRACHYPETALUM

Small size of plant. White, Yellow base floral colour, red spotting, sometimes over the entire flower. Moderately good substance. Rounded segments and floral shape. With ***Paph bellatulum*** especially, lax short stems.

PAPHIOPEDILUM

Cool-tolerance, wet tolerance, waxy textures. There are many “idio-syncratic” species – miniatures, characteristic shapes. This is a diverse group. There is genetic diversity in this group also borne out by varied chromosomal count.

COCHLOPETALUM

Twists in the short petals, often rounded dorsals and pouches which are characteristically pink, moderate multiple flowers. ***Paph primulinum*** is named for its albinistic form which is often a strong yellow rather than the “normal” form “var purpurescens”. Therefore, most breeding from it contributes this feature when combined with other albinistic or yellow parents. ***Paph primulinum*** is also notable in early maturation of the seedlings, a characteristic it confers in many hybrid combinations.

BARBATUM / SIGMATOPETALUM

Cruciform shape, flatness, variations of colour, spotting, miniatures. There are also many idiosyncratic species in this group. The group is diverse. There is genetic diversity in this group also borne out by varied chromosomal count even within single species.

PARDALOPETALUM

Multifloral, long petals with pink at tips. Spotting in the petals, predominantly at the bases. There is characteristic rolling back or reflexing of margins at base of dorsals. There is a characteristic twist of petal tips towards the horizontal. The petals are normally held sub horizontal without much twisting but the segment margins are apt to roll back.

CORYOPETALUM

moderate to large size, multiple flowers. While not a particularly large group, the stance of the petals which can be a dominating feature fall into several characteristic styles from horizontal, sub horizontal, twisting, trailing with and without a broad shoulder.

DEFINITION OF TERMS

Styles

A style defines a grouping with distinct and characteristic aesthetic features.

It is quite possible for more than one genetically defined group (both Species and Hybrids) to share a common "style" for e.g., both Brachypetalum and Parvisepalum sections have rounded segments and contain species with circular outlines.

Intersectional Hybrids

A hybrid whose parentage or ancestry involves species belonging to two or more sections/groups.

Most intersectional hybrid combinations will be primary hybrids between species since only a few hybrid groupings have established "Standards of Excellence"

The reasons for "Intersectional" breeding are:

a. to introduce or combine new features not normally present in a single group

b. to accomplish "complementary breeding" for quality or culture

Novelty Hybrids

A "novelty" (inferring "new" or "unusual") is a label of convenience and does not have any taxonomic standing. It infers a hybrid for which there is no established Standard. It is therefore a "dumping ground" for all unspecified (or "leftover") hybrids that need to be accommodated e.g. In show schedules etc.

A more meaningful use of the term "novelty" which addresses the aesthetics of such hybrids, would involve recognizing uniqueness of idiosyncratic features originating from very characteristic species e.g., ***Paph fairrieanum, Paph rungsuryanum***.

A "novelty" by that definition tends to be a transient label since the establishment of a standard encompassing those features removes it from the "undefined group".

Complementary Breeding

The term was popularized by the late Alvin Bryant as applied to the breeding of cymbidium orchids. He was one of the few breeders who helped develop a lexicon for discussing the breeding of orchids.

The term describes crosses in which a one parent's faults are complimented against the other parent's strengths. The more features which are addressed in this way, the better the compliment. A rule that is used with this form of breeding is that no fault should be reinforced by having two parents sharing the same fault.

The purpose of such combinations of parents is that it is possible for outstanding progeny to be achieved (and selected for) even if both parents have faults, as long as they are different. This is most easily seen in F1 hybrids where two inbred but unrelated parents (or species) are combined:

AA x BB invariably all AB progeny

The significant material benefit is that "imperfect" parents can be used and the necessity and the costs of amassing a stable of superior parents is thus much reduced.

Back Crossing

The term implies breeding "back" to a parent or ancestor however it can mean breeding back to a species. This is in no way meant to be "retrograde". It is done to reinforce or recapture a characteristic which is lost such as vigor or aesthetic feature.

Lines and Strains

A "line" is the descendant crosses or hybrids which all originate from an ancestral cross.

"Line-bred" has developed an erroneous meaning equating to "bred for quality" or "deliberate or designed breeding".

It is expected that a line would seek to preserve a key feature or combination of features.

A strain is a grouping of all individuals which possess a characteristic key feature originating from an original cross such as a colour or colour combination or a mutation.

Idiosyncratic Species

A species which possesses very characteristic and unique features for its section or higher taxonomic group can be said to be "idiosyncratic".

These features or combinations of features can be very dominant and characterize all its descendant hybrids.

This is well-illustrated with ***Paph fairrieanum***, which possess a very characteristic shape for section Paphiopedilum. Its hybrids, both within and outside of its section are easy to identify.

Many idiosyncratic species create "novelties" even if they are not intersectional.

Paphiopedilum Hsinying Antrix (Paph. anitum x Paph. S. Gratrix); Grown by S. Tay; Photographer: J. D'Olier

Paphiopedilum Woluwense (Paph. niveum x Paph. rothschildianum)

> "Irrespective of breeding for type, we can note that there are desirable/preferred for all hybrid paphiopedilum."

Paphiopedilum Dollgoldi (Paph. rothschildianum x Paph. armeniacum); Grown by S. Tay; Photographer: Daniel Webb

COMMON AESTHETICS OF PAPHIOPEDILUM

Irrespective of breeding for type, we can note that there are a few features that are desirable/preferred for all hybrid paphiopedilum:

- Symmetry.
- Balance and proportionality of the segments (size and placement).
- Broadness in the segments.
- That the dorsal and ventral sepals lie mostly within the same plane.
- That the pouch be not overly protuberant – the longitudinal axis on the posterior face of the pouch be roughly parallel to the axis formed by the dorsal and ventral sepals.
- That all detailed features (colouration, gophering, rippling, twists, furls etc.) maintain a sense of "orderliness" and does not detract from the bilateral symmetry of the flower.
- If there are departures to circularity and an imbalance between top and bottom (superior and inferior) portions of the flower, the "weightier" portion needs to be at the lower portion (to maintain a lower visual center of gravity) of the flower.

PAPHIOPEDILUM HYBRID CLASSIFICATION

- Usually "Single flowered" Types
  - Complex 'Exhibition' Standards
  - Chinese/Brachy Paphs (Parvisepalum/Brachypetalum)
  - Maudiae (barbatum/Sigmatopetalum) Types
  - Primary/Novelty Hybrids
- Multi-flowered types
  - Simultaneous flowered (e.g. Paph. St Swithin) types
  - Sequential-flowering types (e.g. Paph. Pinochio)
  - Novelty/Intermediate Hybrids (Intersectional Hybrids)

SUMMARY OF STYLES

Exhibition Standard

This is the most advanced Group – up to generation 23 bred away from species. The required features of the exhibition standard are far removed from those of the species, even of ***Paph insigne*** (which makes up to 50% composition of a typical hybrid) which is the core species around which the Standards is developed.

Genetically this group mostly consists of ancestry from the section Paphiopedilum with a critical addition of both Brachypetalum and Barbata. Section Brachypetalum in the form of ***Paph bellatulum*** is present in nearly all colour groups of exhibitions standard paphs (excepting only some of the albinistic Greens and Yellows). Section Barbata influences derive from such famous parents as Paph Harrisianum, which imparts flatness and vinicolour reds seen in champions like **Paph Orchilla 'Chilton'** and **Paph Startler 'Glace'**. Most exhibition standard paphs contain up to 1 % ***Paph bellatulum*** which is critical for red/brown colour and circularity of form. **Paph Amanda 'Joyance'**, Song-bird and other round shaped champions typically have a higher dose of ***Paph bellatulum*** genes also evidenced by light reticulations in the leaves and shorter stems. Various other Barbata species can occur in very small percentages

There is interest in backcrossing Exhibition Standard Paphs to ***Paph bellatulum*** to reinforce the spotting and roundness. The recent prescence of Paph bellatulum is seen in the shortness of the stem and in fine or faint tessellation in the leaves. Both it and ***Paph leucochilum/godefroyae*** are employed to impart roundness, spotting in backcrosses. The ability of paphs from the Sections Brachypetalum and Parvisepalum to suppress both green and yellow colour has been exploited to create red over white hybrids (pink) in exhibition standard paphs as well as in other styles.

Brachpetalum and Parvisepalum influences

These groups involving Brachypetalum and Parvisepalum are dominated by circularity or roundness of the segments if not the actual outline. The key departures from circularity of the outline occur with Parvisepalum since the greater number of useful species have a triangular outline: ***Paphs hangianum, malipoense, emersonii.***

There is a characteristic roundness to the pouches which is unique to these groups.

The proportionality of the segments is particularly affected when Parvisepalums are used since the pouch may be a very large feature. The pouch sizes are variable within Parvisepalum - Paph micranthum is often dominated by its large, very often low-hanging or disproportionately large pouch vs the proportionately small and oblate (flattened superior-inferiorly) pouch of ***Paph emersonii***.

Crosses between the sections Parvisepalum and Brachypetalum from good complements while maintaining circularity of form and fullness of the segments. The weakness of the dorsals from the Parvi is complemented by the relative sturdiness of the Brachy and the diminutive size and shortness of raceme of the Brachypetalums are address by the proportionately large flowers with long raceme of the Parvisepalums.

Brachy and Parvi crosses with Polyantha

These groups involving Brachypetalum or Parvisepalum and any of the Polyantha species irrespective of Section yield a similar style varying only in their size e.g. **Paph Gloria Naugle, Harold Koopowitz, Wossner Koloniv**.

When Cochlopetalum is used, there is a reinforced roundness to the pouches which is often characteristically pink and the petals display a ruffling or waviness due to the spiral petals of the Cochlopetalum parent. They are somewhat diminutive, whimsical, gawky or "cute" hybrids.

Combinations with the other Polyantha Sections tend to be more formal, depending on the nature of the petals.

These combinations are popular for their quick-flowering nature, requiring a fraction of the time it takes for a pure Section Coryopedilum Hybrid to flower and often matching stature with them by their broad segments, if not their petal span.

Brachy/Parvi x Barbata

These groups involving either Brachypetalum or Parvisepalum with any of the Barbata Group can be exceptionally beautiful as the roundness of the segments is often combined with generally flat presentation of segments of the Barbata group. Many have a characteristic filled-in triangular outline which is appealing e.g. **Paph Olenus**.

When combined with large dorsals of the Maudiae types (Paphs callosum, lawrenceanum) very full shapes are produced. Conversely when a non-planar Section Barbatum species is used such as ***Paph superbiens,*** some furling will result. Using very cruciform species such as ***Paph sukhakulii*** results in more filled-in, but nevertheless cruciform outlines.

These hybrids have a reputation for a tendency on some flowerings to produce colour breaks. (The tendency of old classics such as **Paph Orchilla 'Chilton'** and **Paph Startler 'Glace'** to show colour breaks can be ascribed to the inclusion of ***Paph barbatum*** in ancestry.) This is a phenomenon of the anthocyanin (found mostly on the epidermis or surface layer) to be de-expressed. Obviously, albinos are not affected by colour break as they lack any anthocyanin.

Pardalopetaums x Coryopedilums

In spite of the diversity of the species of the Coryopedilum and Pardalopetalum Sections both their intra – and inter-sectional Hybrids are similar, differing only in coloration and the nature of their petals. They share a common aesthetic.

The petals are variously horizontal or sub-horizontal, curved, spondulate, loosely or tightly twisted or partially twisted depending on the species and its variety used. In the best examples, such detail should be orderly or regular, proportionate or balanced.

Hybrids of Section Pardalopetalum may bear some rolling back of the basal margins of the dorsal sepal and display spondulate tips to their petals, whose margins may also roll back. The petals often show darker coloration to the tips due to the characteristic pink-purple colour of the petal tips of the Pardalopetalum section.

Paphiopedilum Jade Dragon (Paph. fairrieanum x Paph. malipoense)

Coryopetalum/Pardalopetalum x Cochlopetalum

The combination of a Coryopetalum or Pardalopetalum with a Cochlopetalum results in a few-flowered plant of intermediate size.

There are many recognisable greges which have been awarded and the group is characteristic enough to warrant recognition as a Style e.g., **Paph Transvaal, Yongala, Primechild**.

As the primary hybrids appear to be fertile, secondary and tertiary hybrids have been made. These more advanced hybrids may favour one group over the other depending on the proportion of which group. Characterisation of these more advanced Hybrids will then pose a problem for benching.

Multifloral Group Simultaneous x Barbata

The combination of a Coryopetalum or Pardalopetalum with a Maudiae or Barbatum/Sigmatopetalum parent results in a few-flowered plant of intermediate size e.g . **Paph Iantha Stage**.

The best of these seem to combine the flatness of the segments from the Barbatum parent with the size and impact of the multifloral presentation of the Polyantha parent. When a large-dorsaled Barbatum parent is used, the hybrid can be impressive. If a small dorsal parent is used, the flowers can still be pleasant and have impressive petals e.g., **Paph Iantha Stage**.

There are some observations that the terminal bud of these hybrids is imperfect and may not open fully – lacking some segments such as the pouch.

Multifloral Groups (Sequential or Simultaneous) with a Brachypetalum or Parvisepalum

The combination of a rounded Brachypetalum or Parvisepalum against a Polyantha parent is desirable

Many combinations have proven successful and even mericloned.

The successful crosses combine the span of the polyfloral parent and the flatness and width of the petals of the Brachy or Parvi parent. Colours often are dominated by the Brachy and Parvi parents

Successful examples of (Parvi x Coryopedilum) are **Paph Gloria Naugle, Harold Kooperwitz, Delrosi, Dolgoldi.**

Successful examples of (Brachy x Coryopedilum) are **Paph. Rolfei, Chou-Yi Anigode, Woluwense, Wossner Koloniv.**

These combinations present a characteristic style in terms of shape but the size depends very much on parents used.

INFLUENCE OF IDIOSYNCRATIC SPECIES

Paph sukhakulii

The popularity of ***Paph sukhakulii*** in breeding has altered the course and expectations of Barbata-type breeding which has developed several styles one of which is dominated by ***Paph sukhakulii***. What was once uniquely "idiosyncratic" has entered mainstream and paved the way for similarly- shaped species such as ***Paph wardii*** with its clumping habit to be employed as well. ***Paph sukhakulii*** lends its intensely spotted, exceptionally flat and horizontally-held petals to many of its hybrids. The proportionally smaller dorsals in combination with its characteristic features reveal ***Paph sukhakulii*** in close ancestry to many Hybrids irrespective of style.

Paph fairrieanum

This unique species in Section Paphiopedilum has its admirers as well as its detractors. The pronounced ruffling of both the dorsal as well as the petal edges as well as the down swept and reflexed petal tips produce a flower that is highly 3-dimensional and a departure from the planar aesthetics of many horticultural types. These features are to be found in most if not all its close hybrids and are instantly recognisable. A curious feature of these hybrids is the admirable speed they come into flower as seedlings. Some of these seedlings will flower themselves to death if not properly managed by removal so as to induce growth of the next fan.

Paph rungsuryanum

This newly discovered and greatly admired diminutive species is a mystery in its taxonomic placement but that does not seem to deter hybridisers from matching it with almost every conceivable partner. While the plant is small, the flowers are disproportionately large, like a parvisepalum and it offers the opportunity to develop hybrids which are compact but still sport flowers of respectable size. Its purple flower colour is a dominant feature but not its interesting petal morphology which are much reduced to absent in its hybrids. Compact clumping growth which is relatively quick and easy to flower are highly appreciated. Successful crosses, some of which have already been awarded are represented by **Paph Pilot, Goya, Lai Roong, Laotian Beauty.**

Many other species

Numerous species with very unique forms, many of which are only recently described encompass styles which have yet to appear in hybrids e.g., ***Paph bungebelangi, Paph canhii, Paph sandyanum***. Many have features familiar to us from other species, others represent forms which are extreme examples fringing well-known groups e.g. Paph sandyanum's small dorsal set within a form familiar from ***Paph papuanum/ bullenianum***. It remains to be seen if breeders find value in these forms which might introduce them to hybrids.

Ken Siew

Paphiopedilum Pilot (Paph. ciliolare x Paph. rungsuriyanum)
Grown by S. Tay

Paphiopedilum Orchilla 'Chilton
Grown by J& S Atwal

Paphiopedilum Wossner Favourite 'Colette' FCC/AOC
(Paph. godefroyae × Paph. hangianum)
Grown by T. Yee

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