

THE WESTERN AUSTRALIAN ORCHID BULLETIN

THE OFFICIAL JOURNAL OF THE ORCHID SOCIETY OF WESTERN AUSTRALIA
FOUNDED 1946. A MEMBER OF THE AUSTRALIAN ORCHID COUNCIL.

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APRIL 2016

NEXT MEETING of the Orchid Society of Western Australia (Inc.) will be held at the **Manning Senior Citizens Activity Centre, Manning**, on **Friday 22nd April, 2016**, commencing at **7:30 pm**.

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THIS MONTH'S MEETING ITEM:

INTERNET RESOURCES FOR ORCHIDS
KIRSTY BAYLISS

APRIL MEETING DATES:

OSWA Committee 7:30 pm Friday 6th
(at 28 Moorhouse Street, Willagee)

General Meeting 7:30 pm Friday 22nd

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Vale Shirley Masters

Shirley, a member of OSWA for many years and well known in the Perth orchid community, passed away on 27 March 2016. Our thoughts are with Shirley's husband Peter at this difficult time.

Birthdays

March: 11th Merylyn Brechin, 14th Maree McDonald, 19th Jack Rensen, John Walton,
24th Raye McIntosh, 25th Lorna Dodd, 26th Kaye Baylis, Peggy Stacey

April: 7th Rosemary McGrath, 10th Bernadette Campbell, 12th Karen Carless, 17th Mike Burgess,
29th Ian Duncan.

May: 7th Dorothy Walton, 9th Ellen Dixon.

Best wishes to anyone else celebrating Birthdays or Anniversaries. To any member on the sick list we wish you a speedy recovery & may you soon be well.

Autumn Show: Stocklands Riverton, High Road, Riverton.

Set up: Tuesday 3 May; plant entries received 6:00 pm - 7:00 pm, judging 7:15 pm - 9:30 pm.

Show: Wednesday 4 May - Friday 6 May, 8:30 am - 9:00 pm. NO PLANT SALES ON THESE DAYS.
Saturday 7 May 8:30 am - 4:30 pm. PLANT SALES 9:00 am - 3:30 pm.

We would like to start the year with a beautiful display of orchids. Members please bring in as many plants for judging as possible — there are many prizes to be won. Even if you don't have a plant suitable for judging we would appreciate you bringing plants in for the Display. A lot of plants make a perfect show. Our display will be located in the usual spot, outside Big W. Because the florist at the Shopping Centre is now located near where our show will be, *plant sales are only allowed on the Saturday*. If you have any queries please ring Kaye (9337 6210) or Rosemary (9367 9306 or 0401 508 667).

John and Dorothy Walton Home Visit and Orchid Sale

This home open will be held on Sunday 22 May from 10.00 a.m., 29 Menli Place, Orelia 6167. Entry \$5 per person, proceeds to OSWA. There will be the usual sausage sizzle (sausages and rolls supplied). Members should bring a salad or dessert to share, and chairs.

This will be a special home visit because **John will be selling all his orchids and orchid equipment**. John has more than 800 orchids, including over 500 **cattleyas** (mostly mature plants), a good mix of **dendrobiums**, **oncidiums** and **brassias**, a few **vandas**, and over 80 **seedlings** (some quite rare). Prices start at \$5. Various pots, trays, hangers, potting mixes, fertilisers, submersible pumps, and a good variety of new tools will also be for sale.

John will not be attending the April General Meeting, so if you would like further information about the home visit or plant sale, email John on samuel.55@bigpond.com. Please note that John will not be selling anything before the home visit.

Are you missing a salad bowl?

Did you go to the home visit at Mal and Ann Davis's place in January, and are you now missing a glass salad bowl? If so, please call Ann on 9477 4248 to reclaim your salad bowl — you will need it again for the home visit at the Walton's in May.

Wanted: *Vanilla planifolia*

Bob Longmore is looking for a cutting or plant of *Vanilla planifolia* to try to grow in Nannup. If you have a plant or a piece to spare, please contact Rosemary McGrath, or Bob at longmore@westnet.com.au.

Nursery Visits

We are organising visits for OSWA members to two local orchid nurseries: Flora Plant (in July) & Tropical Colours (in August). These visits are always very popular. Watch this space for details.

CYMBIDIUM CULTURAL NOTES (APRIL/MAY 2016) by Roy Brown

Now that the cooler months are coming, a start can be made on repotting. It's always good idea to make an early start on the job of repotting, especially if you have a fairly large collection of cymbidiums. A start can be made on small plants, as well as divisions, that are not expected to flower this year. Any plants that are already showing signs of flower spikes are better left until after the flowers have been cut off. April is the month when most of the Spring flowering plants send up their spikes. Cymbidium spikes are produced from the base of the pseudo bulb, or sometimes they appear between the lower and second leaves. The early flowering Cymbidiums have already produced their spikes and these will continue to grow at a fast rate, in some cases the flower buds can be seen already. Take care of these new spikes, they are easily damaged, and keep all snails, slugs and insects away from the buds. Use Baysol to keep the snails and slugs away, and for all other biting insects, use a powder form of insecticide on the flower buds. Don't use liquid insecticide or you could cause bud drop or malformed flowers once they finally open. Watering will probably be needed once a day from now on, preferably in the morning depending on weather conditions. The regular feeding programme can be continued with the addition of a little extra potash to help form the newly developing flower spikes.

CATTLEYA CULTURAL NOTES (APRIL/MAY 2016) from notes of the late Henry Eaton.

We have experienced a very hot, dry summer and there is very little sign of letup as yet. This should, however, be just around the corner. Until such time continue with your summer culture. When the true autumn weather arrives it will need a change in culture. As it ought to be cooler and more humid, the frequency of watering can be reduced, as well as stopping any watering in the evenings, so as to allow the plants to dry out before nightfall. The necessity to water a plant can be gauged by lifting up the pot and comparing the weight of a recently watered plant with what it felt before watering. Cattleyas in general do not like to have their roots wet all the time, but prefer a wet/dry cycle. Remember too, that the plant is only as good as its root system. Fertilisation with a high Potassium, low Nitrogen formulation can be used fortnightly as growth will be slowing down with Winter approaching. Mature pseudo bulbs should be staked erect so that any buds or flowers will present well. If you use a malleable stake, take the stake to the errant bulb, rather than the other way round, as the latter could cause the bulb to fracture. Over a couple of days or a week or two, gradually straightening the stake can move a pseudo bulb from almost a flat position to an upright one, without damaging the bulb. If circumstances dictate that a plant has to be moved, try and place it in its new position at the same angle to the brightest light source as it was previously. If the weather turns, becomes more cloudy and there is a decrease in sunlight, you can also think about removing some of the shade applied in summer. Keep a close lookout for pests and deal with them promptly. Any unfinished potting on or repotting should be completed by mid-May.

PAPHIOPEDILUM CULTURAL NOTES (APRIL/MAY 2016) by Trevor Burnett.

With the development of cooler conditions, any summer shading can be gradually removed. As the conditions cool, reduced watering will also be necessary. I personally, reduce my watering back to twice a week, but am always mindful that we could still get some of those unexpected hot days when watering will need to be monitored. As the plants growth starts to slow, the fertilizer programme needs to be adjusted, going on to a fortnightly or monthly basis for small plants, depending on your time constraints, at ¼ to ½ strength. Over the past few years I actually cut out all fertilizing for flowering size plants, as I have found that more plants tend to send up flowers if they are not receiving fertilizer in this period. This is also the time of the year that we start to see and enjoy the fruits of our years growing, with plenty of the early flowers now beginning to appear. As flower spikes appear, mark the pot with a wooden skewer with a piece of foam on the top, so you are aware of all the plants that are going to flower. This also serves as a reminder to be careful when moving or cleaning nearby plants so as not to knock the valuable, long awaited buds off. With buds appearing, this is the time to flush out any snails or slugs that may be in hiding, just waiting for your prize plant to bloom so they can start their festive season with nice flowers to munch. If you do not wish to use chemical based baits, you can simply cut up some lemons and place them around the benches. The lemon does not kill any snails or slugs, but it does attract them. Once you know their whereabouts, you can easily eradicate them with a number 10 shoe, or in my case a number 7. Continue to remove any dead leaves from plants and also have a general cleanup of the area. I would ensure that all my small plants that are not expected to flower are repotted to ensure they have a nice clean open mix before going into winter. Winter and wet feet do not mix.

Minutes of the General Meeting of The Orchid Society of WA (Inc.) held in the Manning Senior Citizens Activity Centre, Manning, on 18 March 2016

Welcome: Mrs Kaye Baylis opened the meeting at 7.30pm welcoming visitors Rozita Hadi, members.

Apologies: As per register.

Meeting Item: Dr Bob Longmore "Orchids as Food & Medicine" A very entertaining presentation.

- Bob's Background: Retired Curtin University Senior Lecturer in Medicinal Chemistry and related subjects; OSWA President many years ago, now lives in Nannup & grows *Cattleyas*, *Oncidia*, *Encyclia*, *Cymbidia*, natives, including *Dendrobiums* & some exotics, in 70% reticulated shadehouses and shaded greenhouse. Growing some orchids in pots & now experimenting growing in homemade kokedama (moss) balls with *Oncidium*s – successful, so far. A couple of examples were shown.
- Medicinal: Bob outlined several varieties of orchids which could be used in the treatment of several disorders (some may be folklore, without scientific proof.) Since the name Orchis derives from that for testicle, many traditional uses have focussed on perceived sexual disorders and treatment. Others are used effectively as sedatives, and in treatment hypertension, arthritis & diarrhoea.
- Food: The preparation Salep is extracted from harvested, dried, wild orchid tubers in Turkey, to make drinks, although there's concern that the vast number of plants annually harvested may be causing depletion of various *Orchis* species. *Vanilla planifolia* with the fermented seed pod is an important flavouring, some success in flowering when in Willetton, but not setting fruit.

Break for tea and popular vote.

Minutes: Moved R Pohl, seconded R McCallum that the Minutes of the previous meeting (February GM) be accepted. **Carried.**

Business arising:

- Last date for Neutrog Orders tonight.

Confirmation: Moved B Longmore, seconded J Baylis that the business arising has been resolved. **Carried.**

Correspondence:

- Cockburn Library – Community information update
- MROS AGM Minutes new President, Secretary, etc – new email address for Bulletins
- Open Gardens – none locally at present
- Membership Renewal notices sent out
- Neutrog re payment of royalties direct to Bank Account – latest 1st March
- Neutrog re Speaker for General Meeting & updated Society details after the AGM. Speaker 24th June
- Peel Region OS re Neutrog order - looking forward to putting in an order
- Stocklands Riverton – arrange preliminary meeting
- Invitation to seminars on new Associations Law
- From Garden Clubs, re Liability insurance
- From Devin Hunt, re proposed orchid tour to Singapore
- From Directory of Associations, to update our details in their database.
- Email letters to Ian Duncan (thank you for service) and Mal and Ann Davis (thank you for home visit)
- Responses to email enquiries, etc.
- Received: Society Bulletins and junk mail.

Business arising: Dealt with as read out

Confirmation: Moved M Donald. Seconded R Pohl that Correspondence be endorsed. **Carried.**

Financial Statement: prepared by Kirsty Bayliss

Confirmation: Moved L Brooks, seconded E Burgess, that the Financial Statement and Accounts for Payment endorsed. **Carried.**

New Member: L Brooks

Reports: Nil

General Business:

- Autumn Show at Riverton 4th to 7th May, Set up Tuesday 3rd from 6.00pm– Roster, Sales Tickets, Entry Cards & Schedules available at the front desk
- Shed Cleanup April 17th from 10.00am Sausage Sizzle to follow
- Neutrog Orders -final orders accepted tonight
- Orchid Display & Workshop August to be held 1st weekend in August in Busselton, Host BOS
- Home Open John & Dorothy Walton's- May – date still to be confirmed
- Saturday 10/9/16 clear, for OSWA's 70th anniversary celebrations. Names to go on the list if want to attend Dinner as we can only cater for 60

Raffle: Red C19 – Chris Sloan, Red C05 – Lina Pacca, Orange C03 – Merrill Brechin

Popular Vote: Combined Open & Novice :*Cattlianthe* Chocolate Drop 'Kodama', owner Merrill Brechin.

Badge Prize: No. 28 Rosalie McCallum

Plant Descriptions & Culture: *Cattlianthe* Chocolate Drop 'Kodama' (Merrill Brechin), *Paphiopedilum henryanum* (Peter Kissell), *Cattleya forbesii* x *Cattleya violacea* (Dana Mitchell) and *Cattleya* June Bride (Jack Krishnan).

Meeting Closed at 9.40pm

MONTHLY PLANT COMPETITION (March 2016)

(Please ensure all names are clearly printed so we can record the plant names correctly)

OPEN3 B (1) 1. Peter Kissell *Paphiopedilum henryanum***NOVICE**15 B (1) 2. Jack Krishnan *Cattleya June Bride*15 E (1) 1. Merryl Brechin *Cattlianthe Chocolate Drop 'Kodama'***JUNIOR**13b (1) 1. Dana Mitchell *Cattleya forbesii x Cattleya violacea***POPULAR VOTE** Merryl Brechin *Cattlianthe Chocolate Drop 'Kodama'***SCHOKMAN TROPHY** Merryl Brechin *Cattlianthe Chocolate Drop 'Kodama'*
(Laelinae) 73 points.**The Sales Table at General Meetings**

Members are welcome to bring plants to sell on the sales table. To give sellers a chance to display their plants for sale with correct prices etc, and give all members a chance to buy plants, the sales table will only operate during the supper break. The usual 10% commission to OSWA will apply to plant sales.

The following items can also be purchased from the sales table, at very competitive prices. To purchase pots, please contact Rosemary (ph. 0401 508 667) or Kaye (9337 6210, in May) because pots are not stored at the meeting venue.

Standard pots

80 mm
100 mm
140 mm (50)
150 mm (50)
175 mm
180 mm (2.08 litre)
200 mm
230 mm
305 mm

Clear Pots

80 mm
100 mm

Squat Pots

175 x 120 mm
200 x 100 mm
250 x 150 mm
175 mm Water saving

Fertilizers

Polyfeed
Macracote 12 months slow release

Miscellaneous

Trisodium Phosphate (Steriliser)
Butterfly Clips - medium (20)
Butterfly Clips - small (25)
Pot Hangers
Wire Stakes (15)
Plant Labels (30 per bundle)
Books
Anniversary Badges

***Vanda* Miss Joaquim, the National Flower of Singapore.**

In 1981, Singapore chose *Vanda* Miss Joaquim to be its national flower. This orchid was first described in 1893, as a cross between two species, *Vanda teres* and *Vanda hookeriana*. Until recently, a question remained about the details of the crossing — there is no record of which species was the pod parent (the "mother") and which species supplied the pollen (the "father"). In Singapore, orchids are serious business, especially when it comes to *Vanda* Miss Joaquim, and in 2011 Singaporean botanists Gillian Su-Wen Khew and Tet Fatt Chia set out to answer this question. The question is important not just for historical reasons, but also because the characteristics of a hybrid orchid depend on which parent was the pod parent and which parent supplied the pollen. To appreciate why, we need to know a little cell biology.

A cell is basically a sack of goo. Inside this sack of goo there are various organs. These organs are tiny, so biologists call them "organelles". In the cells of animals and plants (including orchids), most of the genes reside on chromosomes that are contained in the organelle called the nucleus. There are also organelles called mitochondria, which produce energy for the cell by metabolising sugars. In plants, there are also organelles called chloroplasts, which contain chlorophyll. Chloroplasts are responsible for photosynthesis, the process where plants use sunlight to convert carbon dioxide into oxygen and glucose. Chloroplasts and mitochondria are much smaller than the nucleus, and while every plant cell has only one nucleus, it has many chloroplasts and mitochondria. As well as doing important things for the cell, mitochondria and chloroplasts have an unusual property—they also contain some genes. (There is a theory that in the distant past, mitochondria and chloroplasts were in fact bacteria that colonised primitive cells and formed a symbiotic relationship with their host.)

The chromosomes in the nucleus actually contain two sets of genes. In sexual reproduction, these two sets separate when gametes are formed—egg cells, which are large, and the sperm cells, which are very small. So, each egg cell and each sperm cell have 50% of the genes that were in the nucleus of the original cell. Sperm cells end up in grains of pollen. Egg cells end up in the ovary of the orchid flower, which develops into the seed pod if the flower is successfully pollinated. Now comes the really interesting bit. Because sperm cells are very small, they don't contain much stuff, just those genes, some mitochondria to generate some energy, and some machinery to let them swim and deliver their genes to the egg cells. The egg cells, on the other hand, are large, and they contain lots of stuff, including mitochondria (more than sperm contain) and chloroplasts (which sperm don't have at all). So, when the egg is fertilised by the sperm after pollination, about 3% more of the genes in that cell came from the egg (i.e., the pod parent) than from the sperm (the pollen parent).

Why does this matter? Let's say you are trying to breed a compact orchid, and you have two orchids in mind to hybridize, one that is very tall, and one that is short. The orchid that is tall is likely to be tall because it is good at photosynthesis (which means it is good at using sunlight to convert carbon dioxide into glucose, which goes on to be used to form cellulose and other stuff that makes up plant tissue). Because photosynthesis happens in the chloroplasts and the genes in the chloroplast are passed on through the egg (pod parent), it is likely that if the tall plant were used as the pod parent, the offspring would also be tall. If you wanted short plants, you should use the shorter plant as the pod parent and take the pollen from the tall plant.

So, how did Singaporean botanists Gillian Su-Wen Khew and Tet Fatt Chia figure out which was the pod parent and which was the pollen parent for *Vanda* Miss Joaquim bred back in the late 1800s? They studied genes in the chloroplasts of various specimens of *Vanda hookeriana*, *Vanda teres*, and *Vanda* Miss Joaquim, including specimens of *Vanda teres* and *Vanda* Miss Joaquim that were collected in 1893 and held in the Singapore Herbarium at the Singapore Botanic Gardens. Their conclusion? The pod parent of *Vanda* Miss Joaquim was *Vanda teres*.



References:

Parentage determination of *Vanda* Miss Joaquim (Orchidaceae) through two chloroplast genes *rbcL* and *matK*, [Gillian Su-Wen Khew](#) and [Tet Fatt Chia](#) AoB PLANTS 2011 plr018 doi:10.1093/aobpla/plr018

https://en.wikipedia.org/wiki/Plant_reproduction

Photo by Calvin Teo, <https://commons.wikimedia.org/wiki/File:VandaMissJoaquim.jpg>