CULTURAL AWARD, February 2015

Paphiopedilum dianthum
Howard

NEXT MEETING - TUESDAY 10 March

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MINUTES OF THE GENERAL MEETING

10 February 2015, 7:55pm

Present: 21
Apologies: 11 as per register
Visitors: Nil
New members: Nil
Minutes: Minutes of the previous meeting: (Ian, John).
Business Arising: Nil
Current balance is $4,105.69, plus $6,000 in Term Deposit. (Courtney, Tony)

Correspondence:

Inwards:
- Various newsletters.
- Outwards:
  - Nil
  - insurance.

General Business:
- Plants purchased for raffles and monthly sales expected to arrive this week. Ken will attempt to book an inspection of the Taiwan plants at the end of the month hoping to get enough plants released to make room for the plants coming in when Tony’s group arrive home from their trip.
- The society is also purchasing fairly large plants from Peter for use as monthly sales plants including *Laelia anceps* var. *chamberlainiana*, *Encyclia ciliare*, *Oncidium bifolium*, *Bulbophyllum rothschildianum* & *Bulbophyllum putidum*.
- The next Home Visit is on Sunday 1 March, Tony and Mavis, Koondoola
- Courtney kindly offered many 3 & 4 ring files free to anyone who wished to take some.
- Mich reported that several items are missing from our kitchen box

Cultural Award:
Presented to Howard for a large flowering plant of *Paphiopedilum dianthum*.

Raffle: Jeanine, Tara, Judith & Brenda.

Name Badge: Tony.
NOTES FROM YOUR COMMITTEE

- Plant name tags are available for members who purchased last month’s plant, *Dendrobium polyanthum*. Please ask for one at the next general meeting.

- The Society has a formal approval from Water Corporation for members to use sprinklers for up to 10 minutes per day to water their orchids. A link to this approval can be found on the Society’s website at http://members.iinet.net.au/~emntee/Water_Corporation.htm

- Thanks to Ian Duncan who has offered to provide replacement items for some those that were discovered to be missing from our supper box at the last meeting, and to Graham & Margaret for going to the hall to ascertain exactly what is missing, and purchasing replacements as required.

- Gerda has again volunteered to design the Society’s display for the InterSociety Display and Workshop in August. Please be prepared to assist when she asks members to provide materials and orchids for this display.

President: Ken Jones
Vice President: Adrian
Secretary: Graham Bowden
8 Bedelia Way, Hamersley, 6022.
Phone: 9447 4528
e-mail: gmbowden@bigpond.com
Treasurer: Charly
Editor: Ken Jones
204 Park Street, Henley Brook 6055. Phone: 9296 1765
e-mail: kcjones@tpg.com.au

Committee:
Chris       Sharon
Maxine      Paul
Michele     Tony
            Mavis

Quiet Achievers
2013        Ian
2014        Chris

Life Members
Barry (dec’d)
Gordon
Joan (dec’d) & Ted (dec’d)
Trevor
Neville
Noel & Eva
Tony & Mavis
Barry (dec’d)
NOTICEBOARD

FORTHCOMING EVENTS

Home visits:
At 10 am on the Sunday after the fourth Thursday of each month. Please bring chairs and food to share.

* 29 March - Caroline, Harrisdale 6112
* 26 April - Charly & Gerda, Sinagra,
* 31 May - Chris, Sorrento

FOR SALE/WANTED

Imported plant news
The Thailand plants arrived 15 February and are in quarantine. An inspection has been booked for the Taiwan shipment for early March at which we hope to get a reasonable number of plants released.

Ken & Chris Jones
MONTHLY PLANT

Laelia anceps var. chamberlainiana

Country of origin: Mexico, Guatemala, and Honduras

Description: Medium sized Laelia species with tall inflorescence

Difficulty: Easy to grow, robust and free flowering species.

Cost: $15.00

This fine form of *Laelia anceps* has been provided to the Society by Peter who regularly shows this species at our meetings. Approximately half of the plants available to members are in spike.

In Mexico, plants are found in the mountains on the Gulf of Mexico side of the country in the states of Nuevo León, Tamaulipas, San Luis Potosí, Hidalgo, Querétaro, Puebla, Veracruz, Oaxaca, and Chiapas. They normally grow in warm oak forests with tropical deciduous trees at 1200–1600 m, although they are also often found at higher and lower altitude, and in both shady and sunny locations. This wide range of habitats demonstrates the adaptability that makes this species easy to cultivate. While most often found as epiphytes, they are occasionally found growing lithophytically.

The selected species for this month is *Laelia anceps var. chamberlainiana*. This variety first came to England as a huge plant in 1885 and, for many years, was considered the best of the 'anceps'. The accompanying photograph of Peter's plant demonstrates the beauty of this orchid. Note the large size flowers, (approximately 13cm across), the beautiful pale rose-purple sepals and petals, and the wonderful labellum (yellow striped with purple on the inner side and a rich purple-crimson border).

This easy to cultivate species has been grown in a shadehouse, and all have been recently repotted, so will not need attention for another 12-18 months. For best results, this orchid needs to be kept drier during our cold, wet winter months and for this reason, it is advisable to cover at least part of your shadehouse with plastic or similar film to exclude rain. However I grow this species on trees in our garden and they do survive so while desirable to keep them drier, it is not essential. With good air movement, this species does not seem to attract insect pests.
Ken & Chris
Laelia xanthina
Paphiopedilum godefroyae
Paphiopedilum primulinum var. purpurascens

Adrian & Dee
Brassavola nodosa
Cymbidium aloifolium

Peter
Bulbophyllum dearei
Cattleya harrisoniana
Paphiopedilum niveum

Victor
Aeranthes grandiflora

Howard
Paphiopedilum dianthus
Paphiopedilum liemianum

PLANTS DISPLAYED FEBRUARY 2015

Cattleya harrisoniana
Peter

Paphiopedilum godefroyae
Ken & Chris
PLANTS DISPLAYED FEBRUARY 2015

*Aeranthes grandiflora*
Victor

*Bulbophyllum dearei*
Peter

*Paphiopedilum niveum*
Peter

Photography by Peter
The benefits of hygienic practice in keeping your collection free of plant diseases.

At our last general meeting, one of our newer members, Tara told me that local orchid societies seemed not to pay much attention to plant hygiene and good practice in the cultivation of orchids (and for that matter, other ornamental plants) when developing topics for discussion with their members. She felt that this was a significant omission as many orchids are lost through fungal or bacterial infection transmitted from one plant to another via cutting instruments, or from recycling pots that have not been adequately sterilised. Another option is to single use disposable razor or scalpel blades.

As I operate a registered quarantine glasshouse, I am conscious about the potential to spread disease if good hygienic practice is not followed. In the closed confines or a quarantine glasshouse where I cannot apply fungicide or bactericide without approval, good hygiene is essential.

As a logical way to tackle what is a broad range of issues, I will start with disease control. The most common diseases affecting orchids are fungal pathogens, bacterial pathogens and viral pathogens.

**Fungal pathogens**

Common fungal pathogens affecting our orchids are the “rots”. One of these is *Pythium* black rot which generally affects Cattleya species and hybrids. Most of us will have experienced ‘damping off’ of our small seedlings out of flask. This is caused by several soil-borne fungi including *Pythium*, *Phytophthora*, *Rhizoctonia* and *Fusarium*, which infect seedlings and cause them to ‘damp off’ or collapse and decay. *Botrytis* infects flowers during the more humid months resulting in watery spots in the flowers.

These pathogens can be transmitted on instruments, from handling infected plants and then handling uninfected plants, from infected media and from reused unsterilised pots, and in some cases by water splash from one pot to another. There are many products in the commercial marketplace to deal with plants infected by these pathogens, and I will examine some of these in a further part of this article.

However, for the purposes of this discussion, sterilising cutting and other instruments can be simply effected by immersion in sodium hypochlorite (NaOCl). This is probably the cheapest and most readily accessible sterilant for most of us and can be purchased as liquid pool chlorine. The active ingredient is the same as bleach which normally contains about 6% of NaOCl by volume/weight. Pool chlorine is a more concentrated form generally around 12-14% NaOCl by volume/weight, that is, approximately twice as concentrated as household bleach.

The research I am familiar with indicates that an 0.5% solution is generally strong enough to kill *Fusarium*, *Pythium* and *Botrytis* fungal pathogens present in sap provided
a long period of immersion is provided (say 20 minutes), although for Phytophthora, this needs to be at higher concentration of at least 2%. While it is probably overkill, given the inexpensive nature of pool chlorine, I believe that it also worth sterilising media before using. This can be achieved by soaking in pool chlorine NaOCL at a concentration of 100 ml/10 litres of water for 24 hours. After draining off this solution, the media should be rinsed with clean water and kept isolated until used. Another benefit from this treatment is the effective control of thread fungus, the destruction of snail, slug and other unwanted insect pest eggs, and ensuring that the pinebark or other media is saturated before use. I also soak any wooden or cork slabs to be used for mounting plants in quarantine in NaOCl solution as it stops the growth of bracket fungus and algae, and perhaps kills any borer eggs that may be present.

A traditional method of sterilising instruments has been flaming. This can be achieved through flaming with a cigarette lighter or butane torch but needs to be done until a colour change to red heat is observed. However, this is generally damaging over the long term to your instruments, although is adequate if time is of the essence rather than taking care of the secateurs.

Trisodium phosphate (Na$_3$PO$_4$) is another traditional disinfectant that has fallen out of use, although is still used as an industrial cleaner and can be used for sterilising cutting instruments proving it is used at 10% concentration for a minimum of 5 minutes. However, long term use of this product damages even stainless steel blades. Other products include sodium hydroxide and hydrogen peroxide, the latter is recommended at 30% solution. I use a commercial sterilant, Virkon S at 1%, but it is a relatively expensive product and I am not sure that it is warranted.

**Bacterial Pathogens**

There are many bacterial pathogens, however one of the most persistent and damaging to our orchids is *Erwinea*. This disease can be particularly hard to control and rapidly lead to the death of even large plants. *Paphiopedilum* orchids seems to be very susceptible to this pathogen. While bacterial pathogens are considerably more difficult to control than fungal pathogens, NaOCL at 0.4% concentration (40 ml in 10 litres of water) has been found to be effective as a drench, although a much stronger solution is required for sterilising cutting and other instruments.

**Viral Pathogens**

Many of you will have heard about some of the viruses that infect orchids, specifically Mosaic Virus (TMV) and Odontoglossum Ringspot Virus (ORSV) that are generally transmitted from plant to plant by physical means such as secateurs or other cutting instruments (virus pathogens are able to survive for more than a week in dried plant sap), using previously contaminated pots etc. which leads to sap exchange and a transfer of infection or poor general hygiene which allow plant-to-plant sap exchange.
More recently, Orchid Fleck Virus has been found in local collections. This virus is much more difficult to detect as the popular and inexpensive virus test kits cannot test for this virus. Furthermore, its main transfer vector is sap sucking insects making it considerably more problematic to control.

By and large, once a plant has been infected by a viral pathogen, there is little that can be done to control the disease and save the plant. It is recommended that the plant be properly disposed of; in practice, this is most likely to be by placing it in the local council bin, but you could also burn the plant once it has dried off (ensure that it is stored well away from the other orchids in your collection while it is drying to minimise the risk of cross-contamination).

However, as noted earlier, the prime means of virus cross infection is contaminated cutting instruments and/or contaminated pots or containers. As virus symptoms may not always be visible, for example, the colour break in Cattleya, Odontoglossum, Cymbidium, Vanilla, Epidendrum, Encyclia, Oncidium, Phalaenopsis and many other orchid genera flowers which is the physical evidence of ORSV may not be evident in the leaves and is therefore only visible during flowering. Similarly, the symptoms of viruses such as TMV often present when the plant is under severe stress rather than when it is in healthy growth. For these reasons, I believe that it is important to practice good hygiene at all times. Sodium hypochlorite at 10% solution for a minimum of 5 minutes was found to be effective in inactivating TMV and ORSV. While I was not able to find details of treatments for disinfecting cutting instruments or pots where Orchid Fleck or Orchid Streak virus (rhabdovirus) is suspected, it is reasonable to assume that a strong NaOCl solution (at least 10%) might also be effective in inactivating the virus provided adequate exposure time was allowed. Evidence suggests that trisodium phosphate is ineffective at concentrations below 5%, and that it needs to be at least 10% solution for more than 5 minutes to inactivate virus.

However, the issue with all of these methods is the time taken to sterilise cutting instruments when we often need to use them over again in a short space of time. I was unable to find any contemporary research about more rapid methods of inactivating virus, so for the time being caution is likely to be the best guide, and consequently, the approaches outlined above notwithstanding the time constraints should be followed.

The rules for minimising the opportunity for disease transmission are in essence quite simple, and probably seem obvious to all of us, however I suspect that many of us are less than conscientious in our day-to-day practice. For example, do we sterilise our secateurs after we remove a flower spike from one orchid before doing the same to another, or before we divide another orchid. I suspect that from time-to-time, expediency is more important than good practice.

*Continued next month*
ABOUT US

Monthly Meetings
Monthly meetings held on the 2nd Tuesday of each month (exc January) at Wilson Community Hall, Braibrise St, Wilson commencing 7.45 pm. Usually, the short formal meeting is followed by plant descriptions given by members. Supper follows to allow members time to socialise and discuss orchids.
All visitors are very welcome

Membership Fees
Family $30 PA + 2 badges (1st year only) [Badges come in two versions. Pin fastening ($11.50) or Magnet fastening ($13.50) Please indicate your preference.]
Single $20.00 PA + 1 badge (1st year only) [Pin fastening ($11.50) or Magnet fastening ($13.50)]

New members who don't live in Perth will not require name badges, therefore membership will be at the renewal fee only

Monthly Home Visit
On the weekend following the fourth Thursday of each month (generally on the Sunday morning), a home visit is held at a member’s home. This gives members an opportunity to enjoy the fellowship that our mutual interest provides, and to see how others go about growing their orchids.

Monthly Plant Display
Given that the prime objective of the Society is to promote the cultivation of species orchids, only species or natural hybrids are acceptable for display. Since we all may be uncertain about the identification of a plant from time to time, we encourage members to bring plants along about which they are unsure since someone may be able to identify them. There is no competition nor restriction on flower count, quality or length of ownership. We want members to be able to see species plants in flower. So even if your flowers are a bit past their best, bring them in as others may not have seen that species in flower.

Plant Sales
The Society provides an opportunity table for members to sell surplus plants and equipment, and for the Society to sell product from time to time. A commission of 10% is charged on all sales.

Plant Purchases
The Society endeavours to obtain a different species seedling for sale at each meeting, usually costing between $6.00 and $15.00. The Society makes a small profit on these sales which is invested in benefits to members. As it is always difficult to get new or different species, should members have 20 or more plants of one species which they feel might be suitable as a monthly plant, please contact a Committee member.

Raffle
The Society conducts a raffle each meeting and at home visits as a means of raising funds.

Plant Imports
The Society is able to use quarantine facilities provided by Ken & Chris to co-operatively import species orchids.

Management
In accordance with the Constitution, the Annual General meeting is held in May each year at which time the office-bearers and committee are elected. The majority of Committee members serve two year terms.
Next meeting Tuesday 10 March 2015

Peterskorner

Peter & Shirley Masters
Phone: 08 93506087
Mob 0419831177
Shirley 0414948469
E-mail: peterskorner@iinet.net.au

Peterskorner is now distributing a range of orchid products from Easy Orchids (Murray and Jean Shergold) and we are happy to take orders, and bring them to the Species Society monthly meeting (please confirm your order the week prior to the meeting).

Check out our catalogue at www.peterskorner.com, phone Peter or Shirley on the numbers shown, or e-mail peterskorner@iinet.net.au.