



**CULTURAL AWARD, September 2012**  
*Cattleya intermedia* var *amethystina* 'Aranbeem'  
Courtney

# NEWSLETTER

## NEXT MEETING - TUESDAY 13 November

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## MINUTES OF THE GENERAL MEETING

9 October 2012, 8.00 pm

**Present:** 34

**Apologies:** 6

**Visitors:** Kyoko & Lucy

**New members:** Yuko, Barbara, Willie

**Minutes:** Minutes as circulated accepted (Trevor Pratt, Victor Quinlan)

**Business Arising:** Nil

**Financial Report:** The Financial Report was tabled by Lee (in Sandra's absence) and the current balance is \$3,763.70. The #2 A/c \$1,812.45 (Ian, Sharon)

### Correspondence:

#### Inwards:

- AOC Conference Committee chq for display
- Alessandra Bertinelli details of Laos conservation program
- Open Garden invitation to raise funds for The Old Deanery & Heritage Gardens
- ATM Tours Taiwan Orchid Show & tour in 2013

#### Outwards:

- Thank you emails to Bob & Chittima (Sakdisri), Kevin Western & Allan Eggins (Rosella) for gifts of flasks & plant deals.

**Business Arising:** Nil

### General Business:

- Ken brought in several orchids that were left after the displays were dismantled at the Conference.
- Thanks were given to everyone who helped at the Conference - before,

during & after.

- Ken went shopping on the final day of the conference & snapped up:
  - \* 22 plants from Species Plus @ 20% discount (preordered) with a further 28 @ 25% off on the last day
  - \* 8 flasks from Ten Shin Gardens Co. @ 50% off He is also holding 53 flasks from H&R in post-entry quarantine + about 150 other flasks.
- DVDs (Caladenia) and cards not sold at the conference will be available at meetings & Home Visits. There is also 1 copy of Dr Henry Oakeley's book (Lycaste, Ida & Anguloa) for sale.
- Norm auctioned a plant of *Coelogyne eberhardtii*, Ken being the highest bidder at \$40.
- Thanks were given to Ken & Chris for their home visit. The next one is at Tony & Mavis', usual plate & chair required.

**Cultural Award:** Courtney for a well-grown specimen of *Cattleya intermedia* var. *amethystina*

**Raffle:** Courtney

**Name Badge:** Graham

## NOTES FROM YOUR COMMITTEE

- Three more of the plants that we pre-ordered from Orchid Species Plus are in bud. At the November meeting, we will auction *Cattleya porphyroglossa* and *Coelogyne mooreana* with some other orchids, and *Promenaea crawshayana* plus another plant will be part of a special raffle. While we realise that it has been an expensive time for members with the Conference and Show, we are keen to make these desirable plants available when they are in flower.

**President:** Graham  
**Vice President:** Ken  
**Secretary:** Maxine Godbeer  
2195 Hidden Valley Rd, Parkerville  
6081  
e-mail: macjon@ozonline.com.au  
**Treasurer:** Sandra  
**Editor:** Ken Jones  
204 Park Street, Henley Brook  
6055. Phone: 9296 1765  
e-mail: kcjones@tpg.com.au  
**Committee:**  
Chris  
Adrian  
Michele  
Lee  
Sharon  
Trevor  
Tony  
Mavis  
**Life Members**  
Gordon  
Joan & Ted (dec'd)  
Neville  
Noel & Eva

## NOTICEBOARD

### FORTH-COMING EVENTS

#### Home visits:

- At 10am on the Sunday after the fourth Thursday of each month. Please bring chairs and of food to share.
- \* Nov - Judith, Mt Pleasant
  - \* Jan - Ezi –Gro Orchids, Evandale St, Darch

### FOR SALE/WANTED

#### Imported plant news

We now have approximately 200 flasks in quarantine from the 19th AOC. Thirty eight belong to Kevin Butler who made arrangements with Ching Hua and Orchid Inn to take over these flasks once they are released. 53 Flasks from H& R (see article on page 8) are species, and will be available to the Species Society in the future along with approximately 50 from other vendors. The committee is considering which will be suitable for the Society's future use.

*Ken & Chris Jones*

## MONTHLY PLANT

### *Angraecum sesquipedale*

**Country of origin:** Madagascar

**Description:** Moderate - large growing epiphyte or lithophyte

**Difficulty:** As a warm-hot growing species, needs some warmth in winter

**Cost:** \$10.00

*Angraecum sesquipedale* is one of the world's best known orchids. It was the subject of Charles Darwin's hypothesis in his book *The Fertilisation of Orchids* that was proven some years after his death. As we now know, this orchid is pollinated by a hawk moth, *Xanthopan morgani praedictor* with an 11" proboscis used to reach the nectar at the bottom of the long nectary shown in the photo. These plants, sourced from Ezi Orchids have been grown on by Adrian Jose.

This species is found growing in lowland regions on the east coast of Madagascar where it receives abundant year round rainfall. It is principally epiphytic on old, sparsely leaved trees, or on branches where there are fewer leaves and consequently higher light intensity. It is also found as a lithophyte in the same areas.

There is considerable debate about this species with many authors saying that it has up to 6 flowers while others contend



Source: <http://www.orchidspecies.com/angsesesquipe.htm>

that it has only a single flower. The large, waxy greenish flowers are borne on a short racemes, and have a pleasant, if somewhat heavy night perfume. The species is robust and under the right conditions, becomes a large specimen in only a few years through the production of side growths or keikis

Providing it can be kept drier during the wet, cold winter months, *Angraecum sesquipedale* is quite suitable for shadehouse culture, and is generally resistant to most insect pests, although care needs to be taken to avoid water remaining in the top leaf axils as this can lead to brown and other soft rots. Prophylactic fungicide application with Mancozeb or another copper-based spray, or ground cinnamon is usually effective in preventing this. Like other robust angraecoids, this species responds well to regular fertiliser application when in active growth during the warmer part of the year

### Murray and Arni

*Lonopsis utricularioides*

### Ian

*Dendrobium lichenastrum*

*Dendrobium linguiforme*

*Dendrobium tetragonum*

*Microtis media*

*Sarcochilus falcatus*

### Graham & Margaret

*Diuris sulphurea*

*Dockrillia calamiforme*

*Dockrillia pugioniformis*

*Serapias neglecta*

### Chris

*Cymbidium bicolor* subsp. *obtusum*

### Gordon

*Cattleya intermedia* 'Beckenridge Snow'

### Maxine

*Polystachya pubescens*

*Promenaea xanthina*

*Renanthera monachica*

### Ken and Chris

*Ansellia africana*

*Cattleya amethystoglossa*

*Cattleya intermedia* var. *alba*

*Cattleya walkeriana* var. *semi alba*

*Dendrobium nobile* var. *virginale*

*Dendrobium wenzellii*

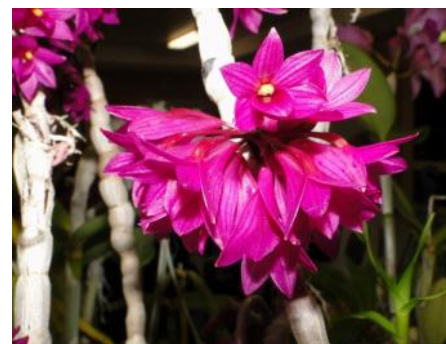
*Phalaenopsis aphrodite*

*Phalaenopsis deltonii* (*bastianii*)

*Pleurothallis* sp. aff. *grobyi*

*Prosthechea cochleata*

## PLANTS DISPLAYED OCTOBER 2012



*Dendrobium goldschmidtianum*  
Peter & Shirley

*Cattleya intermedia* var. *coerulea*  
Sharon



### Sharon

*Cattleya intermedia*  
*Dendrobium jenkinsii*  
*Dendrochilum yuccaeifolium*  
*Paphiopedilum hirsutissimum*  
*Rhynchostylis retusa*

### Peter and Shirley

*Cattleya amethystoglossa*  
*Cattleya intermedia* var. *orlata alba*  
*Dendrobium goldschmidtianum*  
*Dendrobium linguiforme*  
*Dendrobium mortii*  
*Phaius australis* var. *bernaysii*

### Courtney

*Cattleya intermedia* var. *amethystina*  
'Aranbeem'

### Norm

*Cattleya mossiae*  
*Dendrobium kingianum*  
*Oncidium splendidum*  
*Pterostylis baptistii*

## Thoughts on deflasking orchids and maximising growth in com-pots - tips from Roy Tokunaga

I was fortunate to spend some time with Roy Tokunaga (H & R Nurseries) on the Monday after the Conference and Show. Unfortunately, I was not able to attend his presentation and some of the following may be familiar to those of you who did (as I understand that he addressed many of these issues). Some years ago, Tony Watkinson wrote some helpful notes on deflasking which are on the Society's website. The following adds to the helpful 'how to' advice that he provided.

While I have been deflasking orchids for more than 30 years, I did not know or appreciate the significance of some of the following. Roy told me that his flasks are pH stabilised, to increase the shelf life in the dark or stressed conditions. By way of comparison, he advised that some of the flasks that he purchased from other vendors were in poor condition when he got back to Hawaii. He said that the flasks were 'old' and the pH was really low at less than 4.

So what does this mean and why is pH important? pH is a scale of 1-14 that measures the acidity or basic nature of an aqueous solution, where a reading of 7 is neutral. In this context, pH applies to the aqueous solutions, not bark or other media. For those of you with pools, spas or large fish ponds, you will be familiar with pH and the process of adjusting or 'buffering' to change the pH to a level that is most efficient for the chemicals, or in the case of the fish pond, for the health of the fish and plants. In more technical terms, pH is a direct measurement of the balance between acidic hydrogen ions (H<sup>+</sup>) and basic hydroxide ions (OH<sup>-</sup>). The solution can be very acidic = 0 or very basic = 14. At a pH of 7, the concentrations of H<sup>+</sup> and OH<sup>-</sup> are equal and the solution is said to be neutral. For orchids, the recommended media pH is in the range 5.8 – 6.2, that is, slightly acidic.

It is also important to differentiate between alkalinity and low pH (basic) characteristics of aqueous solutions. Alkalinity is a measure of how much acid it takes to lower pH below a certain level (the acid-buffering capacity). Alkalinity arises from the presence of ions that affect acid-buffering capacity including bicarbonates of sodium, calcium, magnesium, and to a lesser extent, sodium and calcium carbonate. By now, you're probably wondering why this is relevant as it seems very complex. I can hear you saying, "...but I just want to grow my orchids!" Alkalinity is important because it is more critical to managing the pH of your media than the pH of your water. While the rainwater which I use to water the majority of our orchids is pH 7.8 (I suspect because it is stored in concrete tanks which would leach into the water), the alkalinity (according to the test strips for our spa) is about 25-30 parts per million. This potentially has a significantly adverse effect on media pH as the water is both basic and alkaline, and as you will see from the following, the capacity of plants to absorb critical elements necessary for vigorous growth may be compromised.

## PLANTS DISPLAYED OCTOBER 2012



*Cattleya mossiae*  
Norm

*Cattleya amethystoglossa*  
Peter & Shirley  
Ken & Chris



Photography by Peter and Mich

The critical thing about pH for plant growth is that if it is too low (acidic) or too high (basic), plants experience difficulty taking up nutrient. For example, pH values of >8 limit the availability of iron (Fe), Manganese (Mn), Boron (B), Copper (Cu) and Zinc (Zn), while values <5.5 limit availability of Potassium (P), Calcium (Ca), Magnesium (Mg) and Molybdenum (Mo). This list contains most of the essential elements with the exception of Nitrogen (N) and Phosphorous (P) which are less susceptible to variations in pH. What this means in practice is that we should be paying more attention to pH, both in the fertilisers we use and the effect that they have on our media. While it is commonly accepted that some orchids, eg Paphiopedilums prefer media that is more basic pH (for many of them, the natural habitat is over limestone), all orchids are going to be more vigorous and make better use of the nutrients that we provide if the pH is closer to neutral. Clearly, those which in the natural habitat grow in moss beds will be highly susceptible to high or low pH. Roy stressed during his lectures that in his experience, calcium is just as important for flowering as potassium and as important as nitrogen for new growth. It is also critical to the development of immune response in plants against fungus and bacteria. He recommends a pH of 5.6 for flask media. Some that I have tested recently were 3.6 – 4.4, that is quite strongly acidic while the plants were literally starving!

Based on the limited research of this topic undertaken for this article and seeing the improvement in my orchids after Roy's advice about application of dolomite lime (in just a few weeks), I have realised just how critical pH and alkalinity are to vigorous plant growth and now know that that I need to pay much more attention to these factors in future. Roy recommended a series of articles by Bill Argo of Blackmore Company in USA which I found on the St Augustine Orchid Society webpage at <http://www.staugorchidsociety.org/culturewater.htm>. If you are at all interested in this topic (and if you are serious about growing your orchids well, you should be!), I can thoroughly recommend this series of articles on pH management and plant nutrition. While scientific, his articles were written for orchid growers and use understandable explanations for complex concepts.

Calcium is also important for flowering. It is absorbed by the roots and transported in the xylem at the time of flowering (note, it cannot be stored in the bulbs or roots for future use). The xylem is one of two types of transport tissue in vascular plants and is derived from the Greek word ξύλον (*xylon*), meaning "wood". The best-known xylem tissue is wood, though it is found throughout the plant. While its basic function is to transport water, it also transports some nutrients through the plant, particularly Calcium. Calcium is highly immobile, and moves through the xylem with transpiration stream. If the humidity is too high or the stomatas are closed, Calcium cannot be transported from the roots to the growing leaves. Calcium needs to be incorporated into the cell walls and membranes at the time they are synthesised.

So what did Roy mean by the term pH stabilised, and what is the significance of this? In his experience, the pH of media in a flask tends to drop to less than 4 within 5 months of sowing. From what we know about the impact of pH on nutrient uptake, this tells us that

the plants are literally starving. Remember, there is only a limited supply of nutrient with many plantlets competing for it, and pH at this level is such that any residual P, Ca, Mg and Mo are not able to be absorbed by the plantlets. What Roy has discovered over time is that many commercial flasks are calcium deficient, particularly if they are 'old' and low on nutrient. This is even more accentuated if the laboratory did not pH stabilise prior to sowing. To keep it above 4.5, he says that it is necessary to buffer before sowing, and for the final months, grow the flasks under bright light (up to 2000 ft. candles for bright light species and hybrids) to ensure that plants are healthy. This is particularly relevant to all of us as the flasks imported for sale at the conference were in the dark for up to two weeks prior to being offered for sale. Therefore, it makes sense to get them into bright light as soon as possible after purchase and to deflask while the plantlets are actively growing.

When deflasking, it is important to use media that is pH adjusted to 6. This can be simply done by adding Dolomite lime which provides both calcium and magnesium to the deflasked plantlets. Roy recommends immediate fertiliser application of calcium nitrate [ $5\text{Ca}(\text{NO}_3)_2 \cdot \text{NH}_4\text{NO}_3 \cdot 10\text{H}_2\text{O}$ ] at the rate of 1 gm/l (1/4 teaspoon per litre), and to avoid fertilisers containing ammonia ( $\text{NH}_4$ ) for one to two months (in this regard, you should be aware some high nitrogen fertilisers contain ammonia, or are sourced from ammonia). This regime helps avoid black rot within the first month of transplanting (I will provide further feedback on this in the next newsletter as I have now used this method on more than 100 flasks).

Roy chose to replant the flasks he took back to Hawaii (he refers to them as "Dead on Arrival") because while the plants may appear to be alive, they cannot survive out of the flask. He said that it had taken him 30 years to figure out how to maximise deflasking survival. He told me that on replating, 10 % of the plants died immediately reinforcing his assessment that they could not have survived deflasking into compots.

As members are aware, we are trying to save a number of the H & R mother flasks that would otherwise have been destroyed. Roy's advice was to grow them for one month in the quarantine glasshouse and they will be ready for deflasking. All his flasks are dated and will be OK for up to 6 months in their crowded condition. He has tested some up to 12 months but found that losses started after about 8 months.

As it will not be possible to replant them (I cannot move them out of the quarantine glasshouse), Roy recommended that we use the method that they employ at the nursery for their own plants. As the expense of replating in US is substantial due to labour costs, they deflask from the mother flasks into trays filled with sphagnum moss onto which dolomite lime has been sprinkled. He says that they have very good results from this approach. Given the limited space available in the quarantine glasshouse, and his advice, I will do the same and advise the results in a future newsletter.

## 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 (1<sup>st</sup> 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 (1<sup>st</sup> 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.

If unclaimed, return to  
The Editor  
204 Park Street, Henley Brook WA 6055

Peter & Shirley Masters

Phone: 08 93506087

Mob 0419831177

Shirley 0414948469

E-mail: [peterskorner@iinet.net.au](mailto: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](http://www.peterskorner.com), phone Peter or Shirley on the numbers shown, or e-mail [peterskorner@iinet.net.au](mailto:peterskorner@iinet.net.au).