Australian Native Orchid Society - Macarthur Group

March 2014

Edited by Tony Asquith mail: aaasquith@bigpond.com. Phone 4625 9874

President: Mr. W. Southwell (Ph. 46818589) **Postal Address:- 43 Strickland Cres.,**

Secretary: Mr. J. English (Ph. 86262934) **PARRAMATTA. 2150**

Treasurer: Mrs. C. Asquith (Ph. 46259874) **Next Meeting:** **THURSDAY , 15th May, 2014**

Life Member: Mr. J. Riley

Conservation Officer: R. Hanman

Venue: BIRRAWA HALL
FITZPATRICK ROAD, Doors open 7.15pm, benching closes 7.45pm, meeting starts 8pm
Mt. ANNAN.

*****PLEASE NOTE NEW ADDRESS For Macarthur ANOS Group.*****

President's Message. Hi to all.
A big thank you to David from Sequoia Orchids for his presentation on Australian Cymbidiums and Hybrids. Great interest from the members.

Congratulations to Don Roberts for the Plant of the night and Ross Morrison for popular choice plant.

Name Badges have been ordered through Graeme Morrison.

This month is auction night! Donate something, anything, and bring your money with you as there is always something of interest.

Good growing, Wally.

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MEETING HELD 20TH MARCH, 2014.

Meeting Opened: About 8pm**,** and the President Wal welcomed members.

1. **Apologies:** Chris Munson, Graeme Morrison, Marj. Yabsley, Don Roberts.
2. **Minutes from Previous Meeting:**

   Proposed by: Richard Hanman **seconded by:** Peter Wise

3. **Business Arising from the Minutes:** Nil
4. **Treasurer's Report:**

   Proposed by: Carol Asquith **Seconded by:** Richard Hanman

Inward & Outwards Correspondence: Various Newsletters, sent & received
Email from ANOS, Robert Moon promoted to Associate Judge..

Moved: Terry Cooke seconded Ross Morrison

Delegate Report: David Gynn of SEQUOIA Orchids gave a riveting presentation on native Cymbidiums and Hybrids.

General Business:

Graeme to organise club badges....

Terry Cooke moved a motion and seconded by Richard Hanman “that the club pays for the badges and the motion was passed.

NEXT MONTH : ‘THE AUCTION’

Raffle : Carol, Noel, Phil, Peter Brown (2), Richard.Richard, Phil, Noel, Don, Richard and Wal.

And the meeting closed.. about 9.30pm

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David’s Gynn’s website can be viewed at http://www.sequoiacymbidiums.com/index.html

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Back to Your Roots

By Deborah Dillon-Townes - Continued from last month

ALTHOUGH FLOWERS are the primary reason why people grow orchids, I also get excited by an orchid's roots. Each new green or red-tipped pure white root making its way out of the potting mix gives me a thrill, because I know that means the plant is alive and kicking. The health of its roots can make or break an orchid, thereby determining whether it blooms or not. Healthy orchids begin with healthy roots.

Epiphytic orchids

To understand epiphytes, you must understand their roots. The white outer layer of epiphytic roots consists of the velamen, a structure of empty, dead cells that absorbs water quickly, like a sponge, each time it rains in the tropics. These roots have the ability to flatten, as in phalaenopsis, and attach the orchid firmly through tiny filaments to tree bark, rocks or, in captivity, pots. In the rainforest where many epiphytic orchids originate, this network of exposed roots is responsible for anchoring the orchid, absorbing water and humidity, and the intake of soluble nutrients in the form of decaying organic matter along with animal and bird faeces. Even terrestrial orchids growing on the rainforest floor do not grow directly in what we think of as soil, which is surprisingly lacking in the rainforest. 'Soil' in a rainforest is not really soil as we know it, but airy, organic humus made up of falling dead leaves and other decaying vegetative and animal matter. It is light, fluffy and fully aerated. Thus, one of the crucial keys to growing orchids in captivity is allowing the roots constant access to oxygen.

Access to oxygen

One thing to keep in mind is that we grow orchids in pots for our own convenience, not for the best interest of the orchid. Pots contain the orchid for display and make it mobile. Potting also helps to keep the roots hydrated because there is rarely sufficient humidity in our homes or even in many greenhouses to keep roots from drying out. However, one consequence of potting is restriction of the roots' access to vital oxygen. And therein lies the problem. Moisture and oxygen are the two vital components in maintaining the health of orchid roots. By containing roots in pots, we sacrifice abundant oxygen for the sake of moisture. We try to compensate for this by using a chunky potting mix containing bark, charcoal, periite or lava rock that creates air pockets, which allow a limited supply of oxygen to reach the roots. Eventually, the bark will decompose and, with frequent watering and warm temperatures, that will happen sooner rather than later. We attempt to remedy that situation by repotting the orchid periodically, but the standard recommendation to repot only every two years is often a death sentence to epiphytic roots imprisoned in a decaying mix breaking down almost immediately under continuous moisture. The smaller pieces of bark rot first, and as the bark decomposes, it collapses and fills in the air spaces in the pot from the centre outward, decreasing the oxygen available to roots.

Plastic pots (which do not permit air exchange through its sides) accelerate this process, because the microbes responsible for decay are anaerobic and thrive in the absence of oxygen. On a recent trip to Florida, I offered to repot the orchids of someone who had inherited them and was not aware that they should periodically be repotted. They had been sitting outside on her patio in South Florida undisturbed for seven years, looking quite forlorn, but still alive. As I lifted the first orchid out of its pot, the potting mix exploded out like popcorn and to my astonishment, began hopping away! On closer inspection I found that the hopping potting mix was actually a horde of tiny brown frogs, with two small geckos still clinging to the mushy mess that had

served as a herpetological nursery. Needless to say, there were no roots of any description still inside the pots. The only thing keeping those orchids alive was some roots that had managed to escape at the top of the pot. You might not unwittingly breed frogs and lizards if you wait seven years to repot your orchids, but there may not be much of an orchid left to repot, either!

Choice and size of pot

An important factor that will affect the health of an orchid's roots is the choice of pots, including type of material and size. In order to make an appropriate choice, you must first determine what kind of 'waterer' you are, and under what conditions you grow. If you tend to over-water, or there is high ambient humidity in your growing area, clay pots are a good choice because they enable more oxygen to get to the roots. If, however, you are a reluctant waterer or grow in a dry atmosphere, plastic pots will help to conserve moisture. By growing in a plastic pot, an orchid receives its major oxygen supply where air enters the mix from above. The roots closest to the surface of the pot, therefore, are the primary beneficiaries and tend to stay healthiest the longest. This is why one cannot usually look at the drier mix and white roots on the top of a pot to determine whether an orchid needs repotting. The roots deeper down, with limited access to oxygen, could be succumbing to rot unbeknown to the grower. Indeed, the only live roots may be the ones that you can see on the surface.

Clay pots, on the other hand, allow oxygen to penetrate and pass through all of its surfaces. I made an interesting discovery last year when I bought some small clay pots for pennies apiece at a craft store. The walls of these pots were considerably thinner and more fragile than the standard clay ones I usually bought at garden centres. To my surprise, the roots of the orchids that were repotted into these thin clay pots took off like wildfire, covering the surface, growing down the sides, and coming out of the bottoms of the pots.
I concluded that the thin walls of these clay craft pots enabled even more oxygen to reach the roots, and the results were impressive. The size of the pot is important as well. A pot of any material that is too large for the root system of the orchid will contain excess potting medium that will not dry out quickly enough to let in oxygen, thus dooming roots to rot. When in doubt about proper pot size, it is safer to contain roots snugly in the smallest pot that will accommodate them. Many orchids seem to grow and bloom better when pot-bound, including dendrobiums, oncidiums and cattleyas.

Potting medium

The sort of potting medium used will also affect the health of an orchid's roots. A bark mix with lots of air holding material, such as coarse perlite, lava rock and sponge rock, will keep the mix viable for longer by creating open spaces within the pot where oxygen can circulate. If charcoal is included in the mix, be aware that it will absorb fertiliser salts and water impurities after a time and can inhibit root growth. I have observed healthy root tips encounter a piece of charcoal, stop growing, turn black and die. Not the entire root - just the tip. I don't think that flushing the pot takes care of this problem completely with aged charcoal.

When roots that are in contact with charcoal die, it may be an indication that the mix needs replacing. Sphagnum moss can be a mixed blessing. On one hand, it mimics the natural moist, airy 'nest' that wild orchids live in. The roots of Phalaenopsis in particular seem to thrive in moist sphagnum moss. However, if watered too frequently and not allowed to become somewhat dry between waterings, suffocation of roots is virtually guaranteed. If you do use it, choose a high-quality long-fibre

One good use for sphagnum moss is for coaxing roots out of ailing orchids or back bulbs. Remove the rotted roots, soak the entire orchid for 10-20 minutes in a virucide-bactericide-fungicide solution (such as Physan), and place it in a small, sterilised clay pot with just enough damp sphagnum moss to hold the orchid firmly in the pot. Only water often enough to keep the moss moist, not soggy. If the plant has enough life force left in it, it will sprout new roots and be on its way to recovery.

Mounted orchids

The most natural way to grow orchids, albeit the trickiest, is on mounts. I grew mounted orchids indoors for years and, if I was diligent in my watering schedule, they thrived. But if I fell behind in watering while allowing humidity levels to drop, the orchid would shrivel and wither away, not usually able to recover from

this type of neglect. If you are fortunate enough to grow orchids in a greenhouse, with its higher humidity levels and ease of watering, you might try growing some orchids mounted on cork or tree fern plaques. It can be immensely satisfying to observe roots developing in plain sight, unencumbered by pots and fully exposed to oxygen the way they grow in nature. When my greenhouse was built, I began dividing orchids and growing pieces of them on mounts. They usually did better than the ones left in pots. Eventually I tried rescuing orchids that had been struggling in pots and mounting what was left of them on cork. Most of the time new roots would emerge, new growths would follow, and the plant would be saved.

Some orchids, such as Angraecums and Aerangis, need to be grown on mounts because their roots are so sensitive to rot that they do not do well in pots. Others, such as Broughtonia sanguinea and Cattleya walkeriana and its hybrids, seem to do better mounted, although they can be grown potted. If you want to try growing orchids on mounts indoors, it is best to position the roots with small pads of moist sphagnum moss underneath them and make sure the highest possible humidity is maintained in the growing area. Some ways to accomplish this might be to place the mount inside a slightly larger clay pot, or hook it over the inside of a glass fish bowl with several inches of water in it, or place it on top of a bed of moist gravel that is contained in a plastic saucer. To grow mounted orchids in a humid greenhouse, dispense with the sphagnum moss and water or mist every couple of days. One word of caution: if the ambient humidity is high enough, it certainly is possible to over-water a mounted orchid, contrary to popular opinion. I have killed several specimen-sized Tolumnia species by watering too frequently. Although these orchids do best mounted, they come from a relatively dry area of Jamaica and the new growths rot easily if watered daily. It is always best to research the particular type of orchid you intend to mount so you are completely aware of its requirements. Another word of advice - try your hand at mounted orchids with a spare division, not a treasured specimen that is already growing beautifully in a pot.

Vital components

Even though roots are the one part of the orchid that usually stays hidden, they are easily the most vital part of the plant. Thus, 'out of sight, out of mind' should definitely not apply to this important system. If you treat your roots well, your orchids will thrive and reward you with strong, healthy plants that produce robust new growths with many beautiful flowers. Isn't that the point of growing orchids?
Deborah Dillon-Townes lives in Virginia, USA and has grown orchids for 14 years.

Benching Results February Meeting 20/2/2014

Dendrobium Species	Den. schreiderae	R. Morrison
	Den. Biggibum	G. Steenbeeke
Dendrobium Hybrid	D. Pink Ballerina ‘Topac Dream’	G. Steenbeeke
	D. Hilda Poxin	??
Sarcanthinae Species	nil	
Sarcanthinae Hybrid	Pldis (S. Riverdene x Plect. Tridentate)	D. Roberts
	S. Velvet x S. Hartmannii	N. Bates
Bulbophyllum	B. Exiguum	T. Cooke
	B. schillerianum	R. Morrison
Aust. Species Other	D. bowmannii	W. & M. Southwell
	Liparis reflexa	R. Morrison
	Aust. Hybrid Other	nil
Terrestrial Pterostylis	Pt. Torquate	R. Hanman
	Pt. Coccina	R. Hanman
Caladenia Species	nil	
Terrestrial Evergreen	nil	
Diuris Species	nil	
	Terrestrial Hybrid	nil
Terrestrial Other	Chiloglottis sylvestris	T. Cooke

	Chiloglottis sylvestris	T. Cooke
Australasian Species nil		
Australasian Hybrid	nil	
Novelty Class (50% or more)	nil	
Seedling First Flowering	S. Gadial	I. Lawson
	S. Velvet	I. Lawson
Growing Competition 1.	R. Hanman 2nd. R. Morrison	

Plant of the night is Plectochilus (S. Riverdene x Plectorhiza tridentate) grown by Don Roberts

Popular Choice is Den. Scheiderae grown by Ross Morrison.
Congratulations
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GOOD GROWING!

Australian Native Orchid Culture

From Orchid Society of NSW Website!

Environment

Native epiphytic or lithophytic orchids are found growing naturally in most of the moist humid areas on the east coast of Australia so it is relatively easy to provide suitable conditions for growing these species and their hybrids. Of the two most popular genera, dendrobiums prefer bright filtered light, 50%-70% shade cloth being ideal otherwise a tree or similar screen allowing dappled sunlight will suffice. Sarcochilus are usually found in more heavily shaded areas, so up to 90% shade and somewhat cooler and more humid conditions than for dendrobiums is generally preferred.

Temperature

New South Wales coastal temperatures are usually fine for native orchids. Good air movement is important for most kinds, especially during the hottest or coldest periods. Natural airflow should not be impeded. Sarcochilus tolerate temperatures up to 30 degrees. Providing more shade and air movement whilst maintaining humity by damping down the growing area when the temeperature exceeds this will allow them to maintain health through the worst of summer. Protect against frost during winter by giving them some overhead protection.

Watering

Perfect drainage is important as many Australian Native Orchids grow on trees or rocks and dry off quickly after rain. Water thoroughly then allow plants to dry out completely before rewatering. Water regularly in summer during active growth and sparingly in winter when the plants are at rest. If you receive regular winter rain, a solid roof over plants may be necessary to prevent over-watering in the cold conditions.

Compost

The growing media be free draining whilst slightly retentive of moisture. A coarse bark mix is ideal, add perhaps 20% gravel or similar if you wish. The heavier media lends some weight and stabilty when growing in pots. As a guide, use 10mm bark in 100mm pots, 15mm bark in 150mm pots and 20mm bark in 200mm pots or bigger. If established in the garden, a gravel bed under the plant will help with drainage, or attach firmly to a tree or rock and tie a pad of coconut fibre or similar over the root mass.

Repotting

Dendrobiums are best done soon after flowering, at the beginning of the growing season. We leave

Sarcochilus till March/April after the worst of the hot weather has past. Sarc's grow all year, but experience most growth during Autumn/ winter. Ensure pots have adequate drainage and are just big enough to contain the root system of the plant to be potted.

Fertilise

Regularly, especially during the growing season, using a fertiliser for flowering plants, i.e. low in nitrogen and high in potassium.

Pests and Diseases

Scale, aphid or spider mite can sometimes attack hardy and resilient, Australian Native Dendrobiums and Sarcochilus. Treat with a recommended insecticide such as Diazinon or Pest Oil. Fungal infections are rare provided good air movement is maintained during wet weather.