Australian Native Orchid Society - Macarthur Group

MARCH 2017

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

President: Mr. W. Southwell (Ph. 46818589) **Postal Address**:- 8A Boundary Road,

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

Treasurer: Mrs. C. Asquith (Ph. 46259874) **Next Meeting: THURSDAY , 20th APRIL,2017**

Life Members: Mr. J. Riley, M. T. Cooke, J. English, and W. & M. Southwell.

Conservation Officer: R. Hanman

Venue: BIRRAWA HALL

FITZPATRICK ROAD

Mt. ANNAN. **Doors open 7.15pm, benching closes 7.30pm, meeting starts 7.30pm**

Our April is our Annual Auction night...this is a fund raising night and members are asked to donate auction items.. most of us have 'stuff' laying about that you no longer need... (plants, books, etc)...bring it along to our auction night!!!!

Hi to All

Congratulations to Margaret for plant of the night and popular choice at the last meeting.

April is the annual auction night, donations of plants, sundries and other things are needed for the sale with all donations going to the club, and bring your money with you.

Providing it is not raining, Margaret will have the sales table with her at this meeting, good chance to stock up on supplies.

Mt Annan was very disappointing and we will not be returning because of the very poor turnout of people on the day.

This will be the last meeting before the **13th May show at Rosemeadow Shopping Centre**, set up from 8am till 4pm. There is a sash and cash prize for best Exotic Orchid.

Don't forget to bring your sales plants to the show.

Wally

Minutes of Meeting 16/3/2017

Meeting opened at 7.40pm.

Apologies John English,Mae Weibel, Neil Robertson, Marge Yabsley and Ian Lawson.

Minutes from previous meeting accepted

Moved Marg Southwell

Second Graeme Morrison

Correspondence; Newsletters from other Societies. Secretary of ANOS—request for Shows dates

Treasurers Report treasurer's report presented Moved Carol A. Seconded Terry Cooke. Passed

Delegates report

General Business

Autumn Show 13th May

Mt. Annan Botanical Gardens...Open Days discussed... 10am to 2pm, 19 March and 9 April (Both Sundays) (we attended on 19th March,set-up under walkway leading to seed bank building, hardly any people came by.we left about 1pm.

Southern Highlands Orchid Group advised of their recent activities.

Tony spoke of newsletter from KABI group in Queensland and a short piece from their newsletter regarding Warringah's President Bill Dobson and his comments regarding his trust in two authors in orchids. One, Sue Bottom is from St. Augustine Orchid Society in Florida and how good their website was. Additionally, Bribie Island group's website is also a valued resource for orchid growers.

Raffle not noted..
Meeting closed about 9pm.

Some events coming up...

Orchids out West..26th - 28th May...lots of vendors as well as displays..Hawkesbury Racecourse, Racecourse Road, Clarendon. Admission $5..

Mingara Orchid Show...June 24-25 ..Mingara Recreation Club... well worth the trip up to Central Coast

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The following articles are from Bribie Island Orchid Societies' website...I hope you enjoy. (Also I hope I haven't printed it before)

Australian Native Terrestrial Orchids

While orchids represent 10 percent of the earth's flowering plants, by contrast with some countries, Australia is not rich in orchids. There are about 660 species of native orchids presently named and these are distributed in some 107 genera. This represents about 4 per cent of our flora. Despite these numbers more than 70 per cent of Australian orchids are unique and are not found anywhere else in the world. Three quarters of the Australian orchids grow as terrestrials, the remainder is epiphytes.

There is an incredible variety of flower colour with some species opting for dull greens and browns and others advertising in brilliant hues, some in striking and flamboyant combinations. Perfumes (if present) may be deliciously fragrant, spicy, overpowering, or even blatantly obnoxious. (Liparis reflexa, Bulbophyllum beccadi, Bulbophyllum fletcherianum). Australian orchids are diverse and embrace some interesting variations. In the terrestrials the flowers range in size from about 2 millimetres across in Microtis atrata to about 10 centimeters across in Caladenia patersonii. Some of the flowers resemble gnats, mosquitoes, wasps, bees, spiders, birds and helmets. Some orchids are highly coloured and may mimic other plants.

Floral diversity is also exhibited in the Australian epiphytes. Flowers range in size from 1 millimetre across, Oberonia titania, to about 7 centimetres across in Phalaenopsis amabilis var. papuana. Pale or dull colours predominate with colourful exceptions being Den. bigibbum (mauve-purple) Den. nindli (blue) Den. speciosum var. grandiflorum (yellow) Rhinerrhiza divitiflora (orange). The flowers of some species may open for but a few hours (Rhinerrhiza divitiflora) where as others may lasts for many weeks (Den. discolor). Perfumes may be pleasant, spicy, overpowering, fruity, unusual or unpleasant. (Den atroviolaceum)

Over 70 per cent of orchids in Australia are terrestrial growers. The largest flowered orchid in Australia is Phaius tankervillae (a local) and is a member of the "Northern Element" of the migrant orchids from Asia. Other "immigrants" being Calanthe triplcata, and Geodorum densiflorum. The "Southern Element" or true indigenous orchids of Australia have "travelled" up from the southern states and includes 83 Prasophyllum species (the Leak Orchid), 73 Caladenia species (the Spider Orchid), 58 Pterostylis species (the Greenhoods), 35 Thelymitra species (the Sun Orchid), 25 Diuris species (the Donkey Orchid) 12 Corybas species (the Helmet Orchids), 10 Microtis species (the Midge Orchids), all of which have local representatives.

Phaius Much admired, not only for their beautiful flowers carried on tall, upright spikes, but for the leaves themselves which are also very showy, Phaius may be grown quite well in Cymbidium mix. They definitely require a fair amount of heat. Two species are principally grown here.

Phaius tankervilleae This is a native to Australia and South-East Asia, and is often known as the "nuns" orchid. There are usually 10 to 15 flowers to a spike and they are white on the back, and reddish brown inside. The labellum has a yellow throat and crimson sides.

Phaius australis A very popular and beautiful species. The flowers, which are borne on tall erect spikes, are white, marked with red. The rare Phaius australis var. bernaysii is a pure canary yellow.

CULTURE IN GENERAL As there are three distinct groups, it is best to divide culture similarly.

GROUP 1 The northern "immigrant" type, such as Phaius, Calanthe, Spathoglottis, Malaxis species. Most are evergreen with pseudobulbs, fleshy leaves and typical orchid roots; they grow in bush house conditions.

GROUP 2 The main genera and the easiest to grow are: (A) Pterostylis, Acianthus, Corybas species that usually grow in moist, humid leaf litter. (B) Diuris, Calandenia, Calochilus, Thelymitra and Prasophyllum species which grow in drier, sandy type soils with higher light, best grown under cover with protection from winds and rain.

GROUP 3 The semi or Holo saprophytic (saprophytic means an organism using non-living organic matter for nutriment). This group contains some of the most unusual orchids in the world. In general saprophytic plants lack the green chlorophyll cells that manufacture the plants sugars and starches. To overcome this, the group depends wholly on a symbiotic relationship with a soil fungus. At least two types of fungus have been recorded. The Hymenomycete type with clamp like connections to the root, and Rhizoctonia type, in which the fungal hypae (the underground body of the fungus) intrude into the cells through a break in the outside of the root, or through passage cells in the roots outside layer of cells. On entering the root the fungus coils itself into a tight spiral of hypae within the root cells. (hypae = thread like parts making up the fungus)

Within the root structure are three different types of cells. One is called the fungal host cell, where the fungus invades the plant; cell two is the digesting cell and the third a storage cell layer, stores the starches acquired from the digestion of the fungal hypae. When the fungus enters the root of the plant, it infects the first cell layer and grows rapidly. The plant then intervenes and digests the fungus within the second series of cells, storing the resultant products in the third layer of cells for the plants later use.

Plants which grow in most states of Australia are Gastrodia sesamoides - Potato orchid, Dipodium punctatum -Hyacinth orchid, Cryptanthemis slateri - Eastern underground orchid, Rhizanthella gardneri - Western underground orchid. The Great Climbing Orchid, Galeola foliata grows up to 12m high, and the Gaeola cassythoides is a smaller plant growing up to 6m high.

PESTS As with other orchid species pests can be a real problem in growing native orchids. In fact some pests are attracted to native plants before attacking any other species of orchid. Snails, slugs, mealy bug, scale, fungi, aphid, grub, grasshopper, rot, and man are the most common problems to name a few. Control as for any other orchid species.

The Aboriginal tribes used native orchids such as, Spiranthes, Caladenia, Glossodia, Diuris Microtis, Prasophyllum, Thelymita, Edochilus, Acianthus, Dipodium, Lyperanthus, Geodorum, and epiphytes such as Cym. madidum, Cym. canaliculatum, and Speciosum as a source of food. They also chewed various orchids as medicines for coughs, colds, and dysentery.

FERTILIZERS Epiphytic orchids respond to the regular application of fertilizers by producing strong healthy growth. Fertilizers are best applied during spring and early summer while the plants have a long growing period ahead of them. Late applications of fertilizers may delay dormancy and interfere with flowering. Organic fertilizers are excellent for orchids because they release their nutrients in a slow, gentle manner over a period of time. Blood and bone and hoof and horn are fairly commonly used to promote orchid growth. Liquid fertilizers are an excellent means of promoting healthy growth. Applied at less than the recommended strength means you can apply more frequently, which helps in producing much better growth.

SLAB CULTURE Many epiphytic orchids grow well on a slab or a section of a tree branch, and relish the extra air movement and rapid drying which occurs after watering. Plants grown on slabs are easily moved and can be moved about until a suitable position is found. Orchids grown on slabs require fairly high humidity and bright light. Orchids with a creeping habit or pendulous stems grow best on a slab,(not paper bark) where as those with crowded, erect pseudobulbs are much better accommodated in a pot.

FERTILIZERS FOR GROUND ORCHIDS We have seen that most terrestrial orchids rely heavily on a mycorrhizal fungus for their survival. This relationship can be readily upset by the excessive use of fertilizers and hence any fertilizing of terrestrial orchids must be carried out with care. A small quantity of

blood and bone (10 grams per 9 litres of mix) added to the mix would be beneficial. One or two applications of quarter strength fertilizers can also be of benefit to some species.

MULCHING Mulching the soil surface with a thin layer of fine leaves has the advantage of reducing moisture fluctuations in the upper layer of soil and inhibiting the germination of weed. It also reduces soil splash when watering, resulting in less leaf rot. The best mulching material is chopped she-oak needles, but the fine sieved leaves from under tea trees can also be satisfactory. The mulch should be applied when repotting so that the new shoots grow up through it.

POLLINATION NATIVE ORCHIDS Dendrobium smilliae is the only Australian orchid that is known to be bird pollinated. The flowers lack fragrance are often pendant and contain nectar. The bird is Bush Canary or Yellow Honeyeater.

Beetles are frequent visitors to the flowers of large species of Prasophyllum, Microtis parviflora, Microtis unifolia, and Peristeranthus hillii.

Calanthe tripilcata are sort after by moths, Habenaria triplonema like to be pollinated by Hawk moths.

Bulbophyllum weinthalii attracts blowflies, Microtis parviflora are also visited by small black ants.

Rhizanthella gardneri are pollinated by termites.

Phaius, Catochilus, Caladenia, Thelymitra, Geodorum, Spiranthes Acianthus eria, Chiloglottis are self pollinated.

These notes have been used at our Cultural and New Growers Meetings. They are from various sources and we thank the authors. All articles are supplied in good faith and the Bribie Island Orchid society and its members will not be held responsible for any loss or damage. (editors note: this article came with 7 photographs of various orchids mentioned in the article)

Benching Results January Meeting 2017

Dendrobium Species	Den. cummerina	T. Cooke
	Den. lichenastrum	R. Morrison
Dendrobium Hybrid	nil	
Sarcanthinae Species	Sarc. Hirticalcar	R. Morrison
Sarcanthinae Hybrid	nil	
Bulbophyllum	nil	
Aust. Species Other	Cymb. Maddidum	W. & M. Southwell
Australian Hybrid Other	Cymb. Little Black Sambo	W. & M. Southwell
Aust. Rhizobium	Cestrichis Coelogynoides	G. Steenbeeke
Terrestrial Pterostylis	nil	
Terrestrial Evergreen	Spiranthe australis	W. & M. Southwell
	Spiranthe Australis	W. & M. Southwell
Dockrillia	nil	
Terrestrial Hybrid	nil	
Terrestrial Other	(can't read)	G. Steenbeeke
Caladenia Species	nil	
Diuris Species	nil	
Australasian Species	nil	
Australasian Hybrid	nil	
Novelty Class	nil	
Seedling First Flowering	nil	
Growing Competition 1.	Den. Grumpy George Carol Asquith	2nd R. Morrison
Growing Competition 2.	Cymbid. Noel Bates	2nd R. Morrison

Plant of the night was Dendrobium bowmanii grown by Wal and Margaret Southwell and the Popular Choice was also this plant grown by Wal and Margaret. Congratulations

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Finally, the Australian Orchid Council is seeking donations of dry seeds from growers..
Refer to www.australianorchidfoundation.org.au further info at the meeting if you need it...

And now a little extra for email members!!!!!

Orchid Roots by Sue Bottom..... sbottom15@bellsouth.net

If there is only one thing that you need to know to successfully grow orchids, it is that orchid roots are different from the roots on your other houseplants. The orchid root consists of an inside core (cortex) that is very tough and carries nourishment and an outside covering (velamen) that is a spongelike material that absorbs water, fertilizer and oxygen. Healthy root tips are bright green. The longer the green portion, the faster the root is growing.

Function Of Orchid Roots.. Many orchids are epiphytes, meaning they grow on trees,where the roots attach the plant securely, search out nutrition, absorb dew and rainfall among other things.

**Absorb Water.* When dry, orchid roots are white but they should quickly turn green when they are watered. When wet, the velamen acts like a sponge, swelling up with water to be absorbed later by the plant. When dry, it acts as an impermeable barrier to prevent water loss from the plant.

**Attach to Substrate*. While aerial roots can also take up water and nutrients, their primary purpose is to keep the orchid attached to its surface. Aerial roots, once attached, may become flattened to provide more attachment surface area. The roots cling to any substrate so well that at times it can be very difficult to remove these clinging roots from whatever they are attached to. There is more velamen on aerial roots and they are adapted to the cyclical drenching and drying of intermittent rainstorms. These roots will become soft and green when they have been continually wet for 10 minutes or so, only then will they absorb water.

**Gas Exchange.* One very important function of epiphytic roots is the exchange of gases, mostly to take in oxygen and expel carbon dioxide, so they enjoy being exposed to moving fresh air. Most orchids can't be grown in potting soil. Special high porosity potting mixes have been developed to ensure there is sufficient air around the roots.

**Photosynthesis.* Another job for some roots is to photosynthesize, which is why you often see orchids grown in clear pots. There are some orchid species that do not have leaves, but obtain their energy from chlorophyll in their roots.

**Temporary Storage*. Many roots also provide temporary storage for food and water.

Repotting New orchid growers are often terrified of the prospect of dividing and repotting orchids. Without some friendly assistance, new growers will often leave plants in the same potting mix long after that mix has degraded so the plants lose their roots and struggle to survive. Potting orchids in a good mix at the proper time will help ensure their survival and your self confidence in growing orchids.

The best time to repot your orchid is when new roots are just emerging because the plant will become acclimated the most quickly at this time. If you're careful, you can repot when new roots are a quarter or half inch long. They can be easily broken during the repotting process and when damaged, they will not regrow so if they're longer than one half inch, wait until they're 4" long or more before repotting. It these longer roots are broken during repotting, they'll branch and continue to grow..

Root growth for some orchid species is almost impossible to initiate except at very specific times in the growth cycle. Some bifoliate cattleya species only put out a very small number of roots in a given year and if these are damaged or destroyed, there will be no growth until the following year at the same time. Bifoliate cattleyas should only be repotted when new roots emerge from the new growth.

Orchid roots become accustomed to their growing environment. When there is a substantial change in this environment, the plant has to grow a different set of roots acclimated to the new conditions.

*When you have a plant that has its aerial roots hanging outside the pot, the roots do not respond well to being placed inside the pot and covering them with growing mix. Better to place them in a bulb pot with a few large chunks of lava rock and after the roots begin to branch, add additional potting mix a little bit at a time.

*The roots of an orchid that has been mounted or grown in a coarse medium tend to be hard and resistant to drying, unlike the fat soft roots found in a sphagnum moss, peat or other water retentive mixtures. Roots on plants grown in sphagnum will not easily adapt to epiphyte-like conditions, nor will roots grown in a coarse, dry medium adapt to sphagnum moss. Roots of both will die if there is a radical change in the type of medium, although new roots will grow and establish in any medium.

*A substantial change in water quality may require the plant to grow new roots to adjust to their new conditions.

Encourage Root Growth. You can encourage new root growth with some of the root stimulators like rooting hormones, seaweed and SuperThrive, particularly in seedlings or recently repotted plants.

**Rooting hormones* are commercially available and usually contain synthetic phytohormones such as synthetic cytokinins and synthetic auxins (naphthalene acetic acid, indole 3 butyric acid and indole acetic acid) that are used to stimulate root growth.

**Seaweed extract* is an organic product derived from harvested brown seaweed that contains major and minor nutrients, amino acids and growth promoting substances like auxins, cytokinins and gibberellins (advanced growers may be interested in KelPak). Seaweed extract is often used to start the growth cycle in spring, enhance root growth on seedlings and divisions, and initiate multiple new growths from back bulbs. Using seaweed immediately after repotting is a good practice to encourage new root growth.

**SuperThrive* contains the synthetic rooting hormone 1-naphthyl acetic acid at 0.04%, vitamin B1 (thiamine, also known to stimulate root growth) at 0.09%, plus a variety of trade-secret ingredients likely including kelp extracts, humates, soluble iron compounds, and the like (from FirsRays.com). Many growers soak newly deflasked plantlets in a SuperThrive solution or use SuperThrive when repotting to help stimulate root growth.

If you want to have beautiful blooms, you have to have a healthy plant. In order to have a healthy plant, you must have vibrant roots. An orchid without healthy roots cannot grow well and cannot generate enough energy to provide you with the floral reward that will justify all your orchid labors.

More Information. Orchid Roots, by the Canadian Orchid Congress, Root Cells and Culture, by Ray Barkalow of FirstRays.com.

This article is from St. Augustine Orchid Societies Website in Florida

Hope you enjoy this excellent article..... Good Growing!!!!