



Australian Native Orchid Society - Macarthur Group

MARCH 2019

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President: Mr. W. Southwell (Ph. 46818589)

Postal Address:- 20 Colo Street,

Secretary: Mr. R. Morrison

COURIDJAH. 2171

Treasurer: Mrs. C. Asquith (Ph. 46259874)

Next Meeting: TUESDAY, 16th April, 2018

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

Conservation Officer:

ANOS Macathur Group disclaims any responsibility for any losses which may be attributed to the use or misuse of any materials published in this newsletter

Venue: BIRRAWA HALL

Should you wish to pay into our account for your fees

FITZPATRICK ROAD

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Mt. ANNAN.

Doors open 7.15pm, benching closes 7.55pm, meeting starts 8pm

Hi to All

A big thank you to George & Mike for their presentation and bringing the range of orchid supplies they have.

Congratulations to Ian Lawson for plant of the night and popular choice, well done.

This months auction is going to be the best one yet. Very generous donations from Ken Coates, for a great range of orchids. Some very good ones amongst them and should have great interest for the members. A very big thank you to Ken for his generosity. Further donations will be very welcome and bring your money with you for the auction.

Growing competition plants will be distributed at this meeting.

First show of the year is on the 11th May from 7.00am at Rosemeadow. Benching by 8.30am and judging to start at 9.00am.

Wally

This month's meeting will see our auction...looking for donations to the sales items list..books, plants, things and whatever...there will be some good plants to purchase (see Wally's note above)...see you there!!!

General Meeting – 19 March 2019

7.50pm

Minutes of Meeting

The Chair – Wally welcomed everyone to the March meeting and made a special note of the large number of members in attendance.

Attendance: As per the sign on book.

Apologies: Jim Cootes, Marg Yabsley

Acceptance of Previous Minutes: Moved: Terry Cooke Seconded: Don Roberts **Carried**

Business Arising: February Benching results were erroneously replaced by the January Benching Results

Correspondence: Nil

Treasurer's Report: Income - \$147/ Expenditure - \$400 - Balance - \$3,123.41

Moved: Carol Asquith

Seconded: Terry Cooke

Carried

General Business

- Presentation of New Membership Badges to Brian Birch and Jagath Dheerasekara.
Badges donated by Graeme Morrison.
- 2019 MANOS Growing Competition – Plants will be supplied by Down Under Native Orchids and will be a Dendrobium Hybrid. Members must pay at this month's meeting – cost \$10 per entry. Member that flowers the plant first will receive a \$30 prize.
- A MANOS Pamphlet will be produced to be used at shows and noticeboards to attract new members.
- Phil Griffiths has brought some sale plants from Graeme Krake for offer tonight during the break.

- Sydney ANOS Show Dates – 31 August (probably Kellyville but venue TBC), 14/15 September at Kellyville, 19/20 October at Kellyville.

<p>2019 MANOS Shows 11 May – Autumn Show Rosemeadow Marketplace 28 September – Spring Show Oran Park Podium 26 October – Sarcocylus Show Oran Park Podium.</p>

- MANOS April Meeting – we be an Auction Night – members are requested to donate any orchids, books, other plants, wine, any other items for the auction.
- MANOS Autumn Show schedule to be presented at the April meeting.

Guest Speakers

George and Mike, Orchid Supplies Company, presented on the night. They provided insights to fertilizer options and pest control measures. Orchid Supplies Company products were available for sale on the night and Graeme Morrison offered to bring any purchases from the company to MANOS meeting ongoing, due to living close to George. George and Mike donated an additional raffle prize on the night.

Raffles - Colin Long, Gordon Bush, Robert Moon, Wally Southwell, Jagath Dheeraseskara

March Benching Results

Benching Results Class	Place	Plant Name	Owner
Dendrobium species	1	Dendrobium lichenastrum	Margaret and Wally Southwell
	2	Dendrobium lichenastrum	Don Roberts
Dendrobium hybrid	1	Den. Soft Mirage	Ross Morrison
Sarcocylus hybrid	1	Sarc. Bonanza	Ian Lawson
	2	Sarc. Riverdene	Ian Lawson
Rhizobium species/hybrid	1	Dockrillia hepatica	Margaret and Wally Southwell
Australian Species Other	1	Cadetia taylorii	Margaret and Wally Southwell
	2	Cestichis. reflexa	Ross Morrison
Australasian Hybrid	1	Den. Flirtation (engae x bigibbum)	Margaret and Wally Southwell
	2	Den. Engagement	Margaret and Wally Southwell
Seedling	1	Sarc. Velvet	Ross Morrison
	2	Sarc. Velvet	Ross Morrison
Judge's Choice		Sarc. Bonanza	Ian Lawson
Popular Choice		Sarc. Bonanza	Ian Lawson

Further General Business Nil
Meeting Closed at 9.00 pm

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Flasking Australian orchid species for conservation

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Introduction

ANOS founding president, Bill Murdoch, spoke on “Conservation of Native Orchids” at the first Australian Orchid Conference in Brisbane in 1967. An article he wrote for *The Orchadian* about that presentation was

reprinted in the June 2006 issue. Among other things, he said increasing interest in our orchids had established a keen demand and said that, “wholesale gathering appears to be the order of the day. Huge quantities are finding their way into our chain stores and other purchasing places, under conditions that entirely preclude their chance of survival. Indeed many plants require such expert knowledge and exact conditions for successful growing, that the sales amount to nothing less than blatant exploitation”. He added that the Queensland government’s selection of *Dendrobium bigibbum* as its floral emblem in 1959 had actually condemned thousands of plants to death.

Dr P.S. Lavarack also wrote about the effect on the Cooktown orchid of its proclamation as floral emblem. In a 1977 article he said that “Despite the fact that the habitat of this plant remains virtually untouched, its numbers have now been reduced very significantly in many areas. It is now no longer to be found near Cooktown and, in other places like Princess Charlotte Bay where it was once abundant, it is now becoming scarce. It is not uncommon to see plants offered for sale in newspapers – sometimes in lots of 100. Plants are often sold in chain stores to people who have no idea of how to grow them” (Lavarack 1979). Many readers will recall the notorious photograph of a station-wagon crammed full of confiscated, illegally-collected plants of *Dendrobium bigibbum* which accompanied an article by Dr. Lavarack in the *Australian Orchid Review* in 1998.

Bill Murdoch advocated a vigorous policy of raising seedlings as a means to save orchids - “When seedlings can be made available without cost or even at a nominal price, then we may expect to see the urge of the collectors to rob our forests, a thing of the past”. Conservation was one of the factors which motivated the founders of ANOS and it inspired some prominent early breeding programs. Ira Butler started hybridising orchids to encourage conservation and discourage illegal bush gathering (Kerr 1991). Ted Gregory began breeding plants and giving them away in the hope of cutting down the thieving from the bush (Gregory 1990).

Over the years others have also championed the flasking of seed to produce species for cultivation by hobbyists to take the pressure off wild populations, and I want to add my voice to this cause. The majority of trade in orchids focuses on epiphytes and lithophytes, and this article was written with those in mind.

Conservation by Propagation and Cultivation

A number of breeders took up the challenge and some of the showier and most popular species such as *D. speciosum*, *D. bigibbum*, *D. kingianum* and *Sarcochilus hartmannii* have now been propagated for over forty years, and are commonly listed in the catalogues of orchid nurseries. A burst of breeding with *S. ceciliae* in the 1980s led to it becoming widely available. The seedlings often produced larger and more open flowers than their wild-collected parents, and plants grew in a wider range of conditions, which is often the case with seedlings produced in flask. Seedlings of some other species, such as terete-leafed dendrobiums and *D. tetragonum*, can also be found in nursery lists.

However, most breeders have tended to concentrate on a limited range of species, and often the smaller-flowered species only become available when divisions of a large plant are offered by a grower who has had it for many years. Most of these plants were collected from logging sites under salvage permits, and those sites have long since been built on, or ploughed for agriculture. The plants in cultivation may be the only survivors of their populations. I would like to see more of these small species, and a wider range of species generally, propagated from seed. A lot of the smaller epiphytes such as Australian bulbophyllums and the epiphytic *Sarcochilus* species and their relatives, are fairly easy to grow, and could form the basis of an interesting collection for people with limited space, if they could get them.

Producing seedlings for reintroduction to the wild is a totally different kettle of fish, and not something for the hobbyist to dabble in. Seedlings produced for horticulture have no place in the bush, and should never be planted there by amateurs in the misguided belief they are doing something for conservation of the species. Conservation translocation is a specialist field which should be left to the professionals at universities and

botanic gardens. Several states have programs for propagation of rare and endangered terrestrials, identifying and isolating the appropriate fungal species, and reintroducing seedlings into their habitat.

Line breeding

The term “line breeding” is often used to refer to any species cross made in cultivation, however the term has a technical meaning and does not really apply to many of the situations it is used for. It does not apply to a crossing made between plants of different varieties of *D. speciosum*, or even two unrelated plants of the same

variety, or to selfings, or when two unrelated plants of any species are crossed. Line breeding is a sort of inbreeding between closely related plants over a number of generations, using parents selected to concentrate desirable traits inherited from a common ancestor, to develop a line of plants with ‘improved’ characteristics. *Dendrobium kingianum* has been line bred in this sense, to improve shape and size and floriferousness, as well as selected colours. *Sarcochilus hartmannii* breeding has been heading in that direction with the crossing of plants of the progeny of the ‘BS’ selfings. “Artificially propagated” is probably more appropriate than “line bred”, but it is unwieldy and also covers propagation by division or mericlone. “Line breeding” is a very handy term that can be used in a loose sense to signify a plant pollinated by toothpick in the greenhouse, rather than an insect in the bush.

Sourcing Flasks

An internet search will find a number of orchid nurseries that supply flasks of Australian species. ANOS Kabi Group’s web site contains a useful list of sources. Flasks usually have to be ordered in advance, in a size that suits the purchaser: hobby flasks for individuals and larger flasks for societies to share among their members. Societies could sow seed and produce flasks as a society activity, perhaps also collaborating with other clubs to produce and swap flasks.

The Australian Orchid Foundation has had a seed and protocorm bank for decades, as a conservation measure and to fund their orchid research projects. There was an extensive and tempting range of epiphyte seed available in earlier days. Their seedbank offerings listed in *The Orchadian* in September 1979 included *Bulbophyllum baileyi*, *Bulbophyllum wadsworthii*, *Cadetia maideniana*, *Cymbidium canaliculatum*, *Cym. canaliculatum* var. *sparkesii*, *Cym. madidum* (light and dark colour forms), *Dendrobium aemulum* (two forms), *D. agrostophyllum*, *D. antennatum*, *D. bifalce*, *D. bigibbum* var. *superbum*, *D. bigibbum* var. *compactum*, *D. cancroides*, *D. cucumerinum*, *D. dicuphum*, *D. discolor*, *D. monophyllum*, *D. nindii*, *D. ruppianum* var. *magnificum*, six different forms of *D. speciosum*, *D. smilliae*, *D. teretifolium* from three different sources, *D. tetragonum* var. *giganteum*, *D. tetragonum* var. *tetragonum*, *D. tozerensis*, *D. wassellii*, *Eria queenslandica*, *Phalaenopsis amabilis* var. *rosenstromii*, *Pomatocalpa macphersonii*, *Sarcochilus falcatus*, *S. hillii*, *Rhineropsis moorei* and *Vanda hindsii*. The current AOF seed bank list is much smaller and contains relatively few epiphytes. Why is that? Growers were producing seed on their orchid species back in 1979, and they can do it now. They could follow the guidelines on the AOF site and submit their seed to the seed bank, or deal directly with a flasking service of their choice and have the seed sown and flasks produced.

Legislation and Penalties

Sadly, Bill Murdoch’s hope that ready availability of seedlings would stop people from ripping them from the bush was overly optimistic. Nursery-raised seedlings were snapped up but wild populations in accessible areas continued to be raided and depleted, despite the risk of increasingly heavy fines. Australian orchids are protected throughout the country and have been for many years now. It is illegal to take native orchids from the bush anywhere without a permit or under a specified exception. The orchid species most commonly cultivated or used in hybridising in Australia are species native to New South Wales and Queensland, and it is only those states’ legislation that I will reference.

Orchids and other plants are protected in New South Wales in the *Biodiversity Conservation Act 2016* and the 2017 Regulation. The maximum penalty for illegally taking an endangered species out of the bush (e.g. *D. tetragonum* var. *melaleucaphilum* and *S. dilatatus*) is \$330,000 for individuals and/or imprisonment for two years. For a vulnerable species (e.g. *S. hartmannii* and *Oberonia titania*), the maximum penalty for individuals is \$88,000, and for orchids that are not listed as threatened (e.g. *D. kingianum* and *D. speciosum*) the maximum penalty for individuals is \$22,000. On top of this, there is a separate penalty of 10% of the main penalty for each plant taken. The monetary penalties for corporations are even higher than those for individuals. These are just the penalties for taking or “picking” them (and note that “pick” expressly includes “remove from the ground”). These are also several other offences, such as dealing in plants that are threatened species and damaging the habitat of a threatened species, and ancillary offences such as aiding or

abetting or procuring another person to commit an offence under the legislation, and for failing to comply with the requirements relating to the tagging of protected plants.

The Queensland legislation (Section 89 of the *Nature Conservation Act 1992*) provides for a range of similarly heavy maximum penalties. At the top of the scale, the maximum penalty for illegally taking one or more plants of an endangered species (e.g. *D. antennatum* and *D. nindii*), or five or more plants of a vulnerable species (e.g. *D. johannis* and *D. bigibbum*), or 10 or more plants of any orchid species that is native

to Queensland but not listed as a threatened species in that state (e.g. *D. speciosum* and *Sarcochilus falcatus*) is \$391,650 or two years imprisonment. At the other end of the scale, illegally taking one plant of an orchid species native to Queensland that is not a threatened species in that state attracts a maximum penalty of \$21,540. It is a separate offence to use or keep plants that have been taken illegally, and the same penalties apply to this offence as to the taking of the plants. The Act's definition of "take" includes "gather".

The threat of those penalties should give pause to anyone who is thinking of taking plants from the bush. However, the fact that the penalties are so severe does not mean our state governments want to discourage enthusiasts from growing native orchid species any more than they want to stop gardeners growing grevilleas. They know that horse has bolted; they just want to stop us stripping the rest of the plants from the wild, in the hope of ensuring that what is still there remains there, sacrosanct. The New South Wales *Whole Plant Management Plan 2018-22* (OEH 2017) acknowledges that harvesting and propagating orchids is an established part of the whole-plant industry. It goes on to say that "OEH supports a transition to propagated material through ending wild harvest for all orchids that can be cultivated". Queensland's management plan (DEHP 2014) states, "To reduce collecting pressure on wild populations, this plan encourages the propagation of native plants from seed or other propagating material and allows these plants to enter the trade with only minimal restrictions needed to verify that the plants are from legal sources."

The Bill Murdoch Trophy

The Autumn 1992 issue of *The Orchadian* announced that ANOS Council was considering the initiation of a new award, of similar prestige to the Ira Butler Memorial Trophy, to encourage the line breeding of horticulturally superior species, with a view to eventually making bush-collected species non-competitive in shows and exhibitions. At about that time, Newcastle ANOS Group requested that such a trophy be introduced to honour Bill Murdoch, who had passed away in 1989 at the age of 94. The first Bill Murdoch Trophy was awarded in 1993 and many of the entries over the years have been artificially propagated seedlings. I urge the owners of entries which were originally wild-collected to consider pollinating flowers on those plants to produce seed for flasking, to help make those species more widely available for enthusiasts to grow. This would be a positive step to further the aims which Bill Murdoch was passionate about, and an appropriate way to honour his memory.

Roslyn Capell is the ANOS Inc. Conservation Officer

References:

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- Department of Environment and Heritage Protection 2014 *Management Plan for protected plants in Queensland 2014-19*. Page 6, <http://www.environment.gov.au/system/files/resources/0844f9ce-8e99-4edb-82ec-19fed5bec374/files/qld-plants-management-plan-2014-19.pdf>, accessed 30.9.18.

And a short article follows....

Another article from Orchid Societies of Victoria's website

CULTIVATING THE GENUS *Pterostylis* by Rex Johnson

Commonly known as greenhoods, rusty hoods or maroon hoods, members of the genus *Pterostylis* seem to be the unlikeliest flowers to be called orchids, but orchids they are. There are more than 120 species in Australia, more than 60 of them in Victoria and 37 in Tasmania, although many are common to both states. A peculiar characteristic of *Pterostylis* is the fused lateral sepals that rise from the base of the flower before separating to form two tails above a dorsal sepal. Together they form a hood (botanically known as a galea) above the column and lateral sepals.

Depending upon the species, the genus *Pterostylis* can be found in nature from sea level to alpine areas and in all types of terrain and climates. Most species have only one flower per stem but some multi-flowered species have as many as 24. Although they are commonly known as greenhoods, the colour of the flowers may range from green to brown, some species having reddish brown or maroon flowers. Green is by far the most common colour, although it may vary from light to dark green, often with white or translucent stripes. Flower size may vary from quite small {e.g. *P. parviflora*) to relatively large {e.g. *P. baptistii*). All are terrestrial orchids that become deciduous each year, usually in summer.

Growing *pterostylis* species or hybrids is so easy that many growers don't consider it to be sufficiently challenging. However, there are so many greenhoods that one could make an extensive collection of this genus alone. Many books and orchid society bulletins provide recipes for special terrestrial orchid potting mixes but some growers have excellent results using general potting mixes from their local nursery. Greenhoods are unsuitable for indoor culture but grow happily outdoors under shade cloth, preferably with a wire netting cover to keep blackbirds from digging out the plants in their search for worms.

Greenhoods commence growth from a subterranean tuber, usually in late winter, in many cases producing a rosette of leaves from which the flower stem emerges. In some cases the flower stem emerges beside the leaf rosette, while in a few cases the rosette withers before the flower buds open. All species may be propagated from seed but many also develop extra tubers, and thus form large colonies. If undisturbed, ten or a dozen tubers in a six-inch pot may multiply to a crowded potful within a few years.

When grown outdoors the plants need little more water than provided by general rainfall, except in periods of drought. The plants should be kept quite dry during the dormant period. Fertiliser should be used sparingly and only when the leaf rosettes are developing.

The easiest species for the beginner to grow are *Pterostylis curta*, *P. nana* and *P. pedunculata*, while the most attractive, easily grown hybrids are *P. Cutie*, *P. Ingens* and *P. Jack Warcup*.

