Native Orchid Society of South Australia

JOURNAL

MARCH 2019

Volume 43 No.2

PO Box 14, Kensington Park SA 5068 Website: www.nossa.org.au Phone: 0439 214 106

NOSSA PHONE
0439 214 106

President
Gordon Ninnes
Email: nossa.president@gmail.com

Vice President
Robert Lawrence
Email: nossa.membership@gmail.com

Secretary
Lindy McCallum
Email: nossa.secretary@gmail.com

Treasurer
Christine Robertson
Email: nossa.treasurer@gmail.com

Editor
Marg Paech
Email: nossa.editor@gmail.com

Committee
Bob Bates
Craig Humfrey
Les Nesbitt
Thelma Bridle
Rosalie Lawrence
Marg Paech

Other Positions

Botanical Advisor
Bob Bates

Conservation Officer
Thelma Bridle Ph: 8557 6553.

Field Trips Coordinator
Michael Clark
nossa.fieldtrips@gmail.com

Librarian
Pauline Meyers

Membership Liaison Officer
Robert Lawrence
Email:nossa.membership@gmail.com

Registrar of Judges
Les Nesbitt

Show Marshall
Craig Humfrey

Speaker Coordinator
John Eaton

Trading Table - *Vacant*

Tuber Bank Coordinator
Jane Higgs
Ph: 8558 6247
Email: jhiggs@activ8.net.au

Website Manager
Rosalie Lawrence
Email:nossa.enquiries@gmail.com

The Native Orchid Society of South Australia promotes the conservation of orchids through preservation of natural habitat and cultivation.
Except with the documented official representation of the management committee, no person may represent the Society on any matter. All native orchids are protected in the wild; their collection without written Government permit is illegal.

Life Members

Mr R Hargreaves†	Mr L Nesbitt	Mrs C Houston
Mr H Goldsack†	Mr G Carne	Mr D Hirst
Mr R Robjohns†	Mr R Bates	Mrs T Bridle
Mr J Simmons†	Mr R Shooter	
Mr D Wells†	Mr W Dear	

Patron: Mr L. Nesbitt

Contents

Front cover - Photo: June Niejalke, One of the key features which would have an orchid enthusiast thinking it could be *Thelymitra matthewsii* is the unusual leaf—featured alongside the flower. *T. matthewsii* is the only Thelymitra that has a spiral Leaf in SA (Several similar species however, occur in WA including the Queen of Sheba orchid). The non-flowering leaf is different to the flowering leaf.

Bulletin Board / Date Claimers

The Native Orchid Society of South Australia meets every 4th Tuesday of the months February to November at St Matthew's Hall, Crn Wellington street & Bridge Street, Kensington (just off Kensington Road). Meeting starts at 8:00 p.m. Doors to the hall open from 7:15 pm to allow Members access to the Library and Trading Table.

DATE	EVENT
March	
Tuesday 12th	Committee Meeting - 7.30pm at McCallum's residence 97 Lyons Road, Windsor Gardens
Tuesday 26th	NOSSA AGM—8 pm start **Guest Speaker**: Jane Higgs **Subject:** Terrestrials
April	
9th	Committee Meeting - 7.30pm at Lawrences' residence 4 Cleo Court, Brooklyn Park
12-14th	Australian Plant Society Show (APS)
June	
15-16th	SAROC 2019 Orchid Fair [note date change]
September	
13-15th	NOSSA Spring Show and Sale

FIELD TRIP

Field trips will generally be held on the Saturday following the General Meeting each month.

Next Field Trip will be (according to the season) 30th March.
As previously, please make contact to book your place and get further information at
nossa.fieldtrips@gmail.com Check next page for more!

ARTICLES FOR NEXT JOURNAL

Articles / Reports must reach the Editor ***no later than Thurs 4th April.*** Early-bird articles - so appreciated!
Please send all articles to nossa.editor@gmail.com ☺

MEMBERSHIP SUBSCRIPTION

Are your Subs OVERDUE? It would seem that many are not yet paid. This could be your last Journal!

All subs should have been paid by 1st January 2019. Costs remain the same as for 2018 - $20 for emailed only Journal, and $30 for mailed out journal (an emailed copy may be requested with a posted journal.)

They may be paid to the treasurer at the meeting or may be paid by EFT—email the treasurer for banking details. If paying by EFT it is really important to **add your name and membership number and 'Membership'** so the payment can be correctly allocated.

Costs to belong to the club are very cheap – a very good investment.

ANNUAL GENERAL MEETING March 26th - 8 pm

Guest Speaker: Jane Higgs (not Les as listed last month)
Subject: "Terrestrial Orchids"
Her talk will include orchids in the wild as well as how she grows and re-pots them, so a bit of everything!

Remember to bring
your orchid plants to be judged
Orchid photos for 'Winning Photograph'
Your name tag so everyone knows who you are.

VENUE:
St Matthews Hall, Cnr Wellington & Bridge St, Kensington.

NEW MEMBERS

John & Pat Lampard of TOORAK GARDENS

If you'd like to learn more about terrestrials, or any orchids, feel free to ring the NOSSA PHONE - see below.

NOSSA'S PHONE & POSTAL ADDRESS

Please use to contact NOSSA.

Specific contacts can be made by emailing—see list on previous page.

Mailing Address:
PO Box 14
KENSINGTON PARK SA 5068

Housekeeping

Field Trips—your observations are important

This year has started out very dry, but our first trip could be on 30th March, which is only weeks away. The rain that has fallen has been patchy so we encourage anyone who sees orchids emerging to please let someone on the committee know OR send an email to the journal editor who will see that the information gets to the right people.

With that in mind, please remember to register your interest so you are kept informed of the general location and then book in if you want to attend. Last year some (including me!) missed out on a trip or two we would like to have gone on because we did not register our interest.

ANOS Conference & Show

You are invited to register for the 2019 ANOS Conference and Show being held in just under 7 months' time in late August 2019 at Strathpine, Brisbane, Queensland.

Please note that **early bird registration closing has been extended to 31 March 2019.** Refer to last month's journal for links and more information about registering.

NOSSA is part of ANOS the host of the triannual Conferences. In earlier years NOSSA sent delegations, mounted displays, provided speakers and Conference seed funding. NOSSA hosted the 1996 Conference at Flinders University.

Written enquiries regarding sponsorships to

The Secretary
ANOS Inc
PO Box 435
BUSSLETON WA 6280.

January Workshop

Lindy McCallum

Our Goodwood working bee and workshop was attended by only a few members but a lot of work was done!

We rearranged and swept out our storage area, discovered forgotten things, removed rubbish and measured up pieces of equipment ready for future plans, prepared things for donation, did an audit come stocktake, and swept away the cobwebs. The space now looks clean and almost spacious! (Photo: Lindy McCallum—the view before! Was almost daunting.)

We discussed a lot of things in the workshops. We went through the Constitution and now have it ready for membership consultation. Please look for the email and send back your thoughts as it needs to be understood by, and work for all members.

Next we went through the stored posters and decided on a plan to develop or redevelop some posters ready for various displays.

After that we discussed what we can offer new members. We came up with quite a list which we will develop over the year until we have a member pack for new members.

For established members there was discussion around Certificates of Appreciation and the issues around volunteer hour records and orchid tracking – both important issues that you will hear more about as we develop procedures.

On the subject of volunteer hours we heard that Thelma and the Conservation Team put in over 1,540 hours dealing with conservation issues over 2018 – that is an amazing number of hours of hard work. Thank you to Thelma and all the conservation team, from your fellow NOSSA members.

February Guest Speaker Notes

John Eaton

At our February 26th meeting, thirty NOSSA members were treated to a stimulating talk by Dr Renate Faast from the University of Adelaide – our first guest speaker for 2019.

Renate acknowledged the support her project received from an Australian Research Council (ARC) grant under the Linkage Program which promotes national and international research partnerships between researchers and publicly funded research agencies – in Renate's case – support from the University of Adelaide, SA Museum, SA Water, Forestry SA, The Australian Orchid Foundation, the Nature Foundation of SA, The Environment Institute and the SA Government.

Mixed Messages

Renate had been getting mixed messages from the field observations people had made following prescribed burning or bushfires. This ARC grant enabled her to study the impacts of prescribed burning on native terrestrial orchids.

Renate found that the response of orchids to controlled burns suggests that there are winners and losers amongst orchids: Naked sun orchids responded really well to a controlled burn with 6 plants growing to 83 plants. REALLY good news for that species of orchid but the reality is more complicated than that and this study suggests that there are no generalisations that can be drawn with any confidence about regeneration following prescribed burns or bushfires! In view of the complex interactions between orchids and other plants, and between orchids and bird-and-animals grazers, orchids rely on so many things to go right in order to set seed and recruit new plants into a population. With the exception of a few self-pollinating species, most orchids rely on pollinators for seed production. For non-clonal species, releasing seed is the only way to ensure the species' long-term survival!

Not all relationships are friendly

Over 80% of orchid flowers had been grazed at some sites. *No flowers* means *no seeds*. Renate's film clips embedded in her PowerPoint dramatically showed the extent of orchid predation by birds such as white-winged choughs and currawongs. They picked off the flowers quite deliberately, leaving behind an intact stalk. Five flowers were grazed every 10 sec (that's at a rate of 30 flowers/min!) And there are all the other orchid grazers such as roos, deer and rabbits as they move through a patch, often only grazing part of the stem, in a far less targeted and thorough way, compared to these birds. All of these interactions play a key role in whether seeds are released to keep the population viable.

The Mount Bold Fire prompt

While engaged in her PhD research into reproductive ecology of spider orchids, Renate heard that a fire at Mt Bold had led to a "profusion" of *Caladenia rigida* flowers! The Victorian bushfires had also prompted changes to prescribed burning practises in SA. The combination of these two events led Renate to explore the effect of fire on the interactions orchids have with other plants and animals – leading her to ask such questions as:

- *Does fire promote the flowering of spider orchids (e.g. Caladenia rigida, C. behrii, C. tentaculata) and Glossodia major?*
- *If there are more flowers following fire, will they be pollinated and will they set seed?*
- *How does burn timing influence this response?*
- *Do all species respond in the same way?*

These are all critical issues to consider if we are to ensure a self-sustaining orchid population in the future.

February Guest Speaker Notes *Contd.*

Seasonal Factors

There are *seasonal* influences on the *effects* of a burn. The response to a summer bushfire could be quite different from cooler season burns in autumn and spring. And even if some orchids are stimulated to flower, it doesn't necessarily mean that they will end up producing and releasing more seed - which is what *really* matters for the long-term survival of the orchid population.

Orchid monitoring was carried out in several sites and included 1 autumn, 3 spring burns and 4 adjacent unburnt control sites across the Mt Lofty Ranges (NE of Adelaide). Renate followed the fate of 4 species by tagging up to 150 plants for each species. Renate's presentation focused on the Millbrook sites where she studied *C. rigida* and *G. major* before and after a prescribed burn conducted in Autumn 2013. Unfortunately and fortuitously, her control site also became a bushfire site following the Sampson Flat Fire in January 2015. Fortunately, the Autumn burn site was not affected by the Sampson Flat Fire, so became something of a *control* site!

Renate found that 97% of *C. rigida* did not emerge after the Autumn prescribed burn compared with 8% at the unburnt control affected site. Flowering was not promoted and no tagged plants flowered. A similar but less severe effect was recorded for *Glossodia major*.

Will these orchids recover in subsequent years?

Annual monitoring up until 2017, revealed that over one third of *C. rigida* plants did not re-emerge for 5 consecutive years after the autumn burn. Unfortunately, these plants are likely to have been killed by this burn, probably because the fire was conducted as the orchids were about to emerge. Interestingly, spring burns did not have a detrimental impact on the orchids studied, however, a proportion (18 – 28%) of *C. rigida* plants may also have been killed by the summer bushfires.

One of the more striking findings out of this research was the large increase in pollination for *C. rigida* following the bushfires – up to 65% of flowers (protected from grazing) produced a seed pod – an unprecedented rate for Renate's research. It seems that in the sparse blackened landscape with very few other plants in flower, *C. rigida* had most of the attention for pollinators. However, the removal of understorey cover also meant that grazing rates were higher after the fires, and most of the flowers that were not protected inside cages were eaten. This meant that there was no actual benefit to the orchids, as there was no increase in seed release. All of these responses were short-lived, and by spring 2016, pollination, grazing and seed release rates were much the same as before the fires.

Renate's Conclusions:

All species are not equal - fires may benefit some species others don't fare so well;
All fires are not equal;
Autumn burning may be detrimental to *SOME* species;
Bushfire may benefit seed release, *only* if grazing pressure is low - and
Flowering was not promoted by any fire.
More research is needed on other species, and in different habitats.

Therefore Renate pointed out that ***no generalisations*** can be made about her observations!

Some good news that has come out of this research:

- Burn practices are changing, with land managers taking into account the timing of prescribed burns, and best attempts are made to avoid late autumn burns in areas containing threatened (early-emerging) orchids;
- Impacts of fire on reproductive success appear to be short-term

February Guest Speaker Notes *Contd*

Renate's hope is that one day, the message will get out there that *while some orchids can respond well to burning, this isn't the case for all species* – and that we still have a long way to go before we will really understand the complexities that underlie these different responses with any degree of predictability. Renate also warned that over a third of SA's orchids are threatened with habitat loss, weed invasion, pollinator loss, grazing and fire regimes.

Renate's address was followed by a flurry of burning questions and observations. It is hoped that we NOSSA members will use Renate's conclusions to guide and inform our own anecdotal field observations and test our underlying assumptions and prejudices about the effects of burning on orchid viability - especially as we enter an unprecedented and potentially species-destroying period of human – induced global warming.

What happened to all the *Praso. murfetii*? *Bob Bates*


Photo: Bob Bates

Prasophyllum murfetii DL Jones is a now a critically endangered native orchid restricted to SA and only on the Fleurieu Peninsula. Many NOSSA members were and some still are involved in the desperate attempt to save the species from extinction. Once known from at least fifty different, (usually swampy) sites; a team led by endangered species ecologist Richard JP Davies has in Nov/ Dec. 2018 searched all known past sites (except those now under pasture or cultivation or even at the bottom of farm dams enlarged in recent times, or even some built on.)

The search result was a sad one. Aas expected, 90% of sites were gone, under pasture, or were dry due to drains constructed to kill the swamps for pasture, or upstream water extraction and as nearly all were, or had been in agricultural or forestry use. The weeds associated with farming had now spread to cover the sites where *P. murfetii* had been. The 3 metre tall mounds of blackberry had joined to cover whole creek-lines and swamps, with gorse, broom or Watsonia in between. Where sheep had been removed, Phalaris grass had taken over. Native plants and agriculture are clearly not compatible.

NOSSA members, Leo Davis, Thelma Bridle, Ed Lowrey and Helen McKerral helped, along with me - and James Trezise who had conducted environmental burns to open up the dense thickets of swamp shrubs and facilitate orchid flowering. This had been very successful in encouraging flowering, but without fencing and caging of plants kangaroos would have eaten most.

At other sites small areas had been slashed. The result was dozens of plump seed capsules. Some had been hand-pollinated but as *P. murfetii* is well pollinated naturally by insects that was unnecessary as when all the twenty or so flowers set seed it weakens the plants and many will die while none will flower the following year.

Can we save our orchids? Of course, but only if all countries stop clearing forests and instead we plant billions of trees on degraded land before climate drying etc makes it impossible. It would be good if Australia including SA banned land clearance and poor farming practices. Let's start now. We are clearly phasing out fossil fuels, so chances are that renewable energy will soon be the norm.

2018 Conservation of *P. murfetii*

Thelma Bridle

A site in Stipituris Conservation Park was burnt and fenced in April 2018 in an attempt to recover a population of the endangered native orchid *Prasophyllum murfetii*. Weedy growth had increased, despite some weeding action over the years, whilst orchids had reduced in number to only three spikes present in 2017, of which one had a broken spike, another was grazed with only one producing flowers. Burning of Prasophyllum sites is a double-edged sword, large numbers of plants occurring in the first year after a fire then rapidly dwindling to none within a couple of years.

Seed collected from Stipituris in 2015 by Dan Duval of the Seed Conservation Centre had proved to be poor quality and non-viable. In 2018 26 flowering spikes were recorded and all plants tagged and caged to prevent any herbivory. This flowering was therefore a good opportunity to try some hand-pollination of flowers in case the natural pollinator was not present. Insects are declining as well as orchids. Over two separate visits, as not all spikes flower together, three to four flowers from ten plants were cross-pollinated. Ed Lowrey is very accomplished at this technique on small flowers and taught both Helen McKerral and Leo Davis. Hand pollination and seed collection are activities carried out under permit only.

All flowering spikes produced 26-41 seedpods, so the tiny pollinator (or several) must have been present. Dan collected about 120 pods keeping the hand-pollinated separate from naturally pollinated. Seed quality in both collections proved indistinguishable with all seed looking healthy. Earlier in the season Dan had collected a small sample of plant material for Noushka Reiter to isolate and grow the fungus ready for germination of some of the million seeds collected. Remaining seed will be stored under suitable conditions in the Seed Centre. Prasophyllum species have not proved amenable to cultivation in the past but extensive experimental work by Noushka and Ryan Phillips in Victoria are hoped to prove successful.

We await results from Noushka and also whether the orchids will reappear in Stipituris in 2019. Much weeding at the site will be necessary over coming months to control post-fire rapidly returning vegetation to provide the best conditions for orchid growth.

Due to space restrictions in the February journal, these two articles were held over until this month. Thank you for your understanding, Bob Bates (NOSSA's Botanical Adviser), and Thelma Bridle (Conservation Officer).

Final award and trophy presentations from NOSSA Spring Show.
All photos: David Hirst

Winning Photo February

Rosalie Lawrence

Photo: Rob Pauley

Our first winner of the year was Rob Pauley's photograph from the South East of *Thelymitra malvina* (Mauve Tufted Sun Orchid).

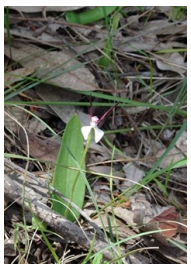
There were four other entries.

Competition Guidelines

Any type of photograph can be entered as long as Australian Orchids are in the subject. Though there are no other restrictions on the monthly competition, only those featuring South Australian orchids will be eligible for the 2019 calendar competition.

Entries can be emailed to nossa.enquiries@gmail.com

Email the largest size file as possible preferably jpeg as an attachment .



The other contenders

Prasophyllum sp. from Western Australia Photo: Pauline Meyers

Glossodia major Photo: Lindy McCallum

Leptoceras menziesii Photo: Lindy McCallum

Thelymitra antennifera Photo: Lisa Incoll

Thelymitra malvina

Rosalie Lawrence

Thelymitra malvina (Mauve Tufted Sun Orchid) found in only a few places in the South East of South Australia but also occurs in Victoria, NSW, Queensland, Tasmania and even across the ditch in New Zealand where it is considered "an Australian species now established in the North Island".

According to the Atlas of Living Australia, it is endangered in Victoria, South Australia & Tasmania; is of Least Concern in Queensland and there is no listing for NSW.

This species has been included in both the *T nuda* and *T. pauciflora* complex for as Jeff Jeanes has observed, it has characteristics of both complexes such as the smaller flowering forms are self-pollinating, and the larger flowering forms are insect pollinated

Although there are no other closely similar species in SA, it can be confused with *Thelymitra atronitida* in the eastern states, so it is worthwhile considering the differences

	T malvina	*T atronitida*
Stem	3 sterile bracts	2 sterile bracts
Height	25 – 75 cms	30 – 50 cm
Flowers	Slightly larger (but can have smaller flowers)	Smaller flowers
Inflorescence	3 – 25 usually loose	2 – 8 (– 16)
Column	Reddish to dark brown with yellow apex	Glossy black with yellow apex
Post anther lobe	Moplike tuft of pink or mauve (rarely white) trichomes	Moplike tuft of white trichomes (hairs)

Across the country, there are variations in flowering times with NSW having the longest from August to November and South Australia and Tasmania having the shortest; of October and November respectively.

REFERENCES:

Bates RJ, 2011 *South Australia's Native Orchids*, electronic
Backhouse G, *Bush Gems, A Guide to the Wild Orchids of Victoria, Australia*, 2016, electronic
VicFlora, https://vicflora.rbg.vic.gov.au/flora/taxon/0de4b1c5-3f1f-43ea-9464-c713a12d5758 Accessed 6 March 2019
VicFlora, https://vicflora.rbg.vic.gov.au/flora/taxon/748b23b6-4779-4a93-89fc-8ec2a8b05a06 Accessed 6 March 2019
Atlas of Living Australia, https://bie.ala.org.au/species/NZOR-4-76548 Accessed 6 March 2019
New Zealand Native Orchids, https://www.nativeorchids.co.nz/Descriptions/Thelymitra_malvina.html Accessed 6 March 2019
Jeanes J, 2013 *An overview of the Thelymitra nuda (Orchidaceae) complex in Australia including the description of six new species* https://www.rbg.vic.gov.au/documents/MuelleriaVol-31-p3-Jeanes-PDF-Accessibility.pdf Accessed 6 March 2019
Natural Value Atlas, https://www.naturalvaluesatlas.tas.gov.au/downloadattachment?id=14596 Accessed 6 March 2019

Benched Orchids for August

Les Nesbitt -Registrar

Commentary for the night provided by Les Nesbitt

Leader: Les Nesbitt

Judges for the night were: Graham Zerbe
Steve Howard
Don Higgs
Jane Higgs
Mei Weibel

Open Division Epiphyte Species

**1st	*Sarco eriochilus*	Steve Howard
2nd	*Cymbidium madidum*	Les Nesbitt
3rd	*Sarco eriochilus*	Steve Howard

Epiphyte Hybrid

1st	*Dendrobium* Limestone	Graham Zerbe
**2nd	*Dendrobium* Kenny Green	Edda Viskic

Second Division Epiphyte Species

**1st	*Sarco eriochilus*	Rosalie Lawrence

**Popular Vote winners


Photo David Hirst

Plant of the Night

Dendrobium Limestone—Graham & Sue Zerbe

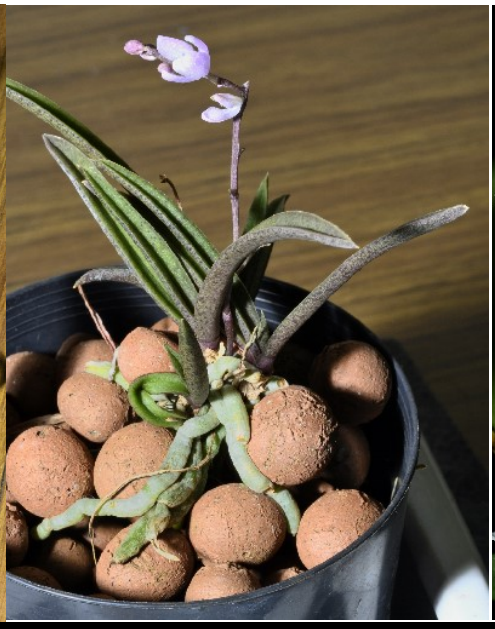
Graham has had this prolific flowering plant for 4 years. Hanging on a north-facing wall of his shadehouse, under 70% beige shade cloth, he waters it regularly in Autumn and Spring as needed.

During Summer it gets extra misting during hot periods but in the Winter it relies on natural rains. Feeding of High K occurs from Christmas through to June and is then replaced by High N from June to Christmas.

It flowers every year, sometimes flowering twice within 6 weeks.

All photos: David Hirst


Sarco Eriochilus


Sarco Eriochilus


Cymbidium madidum

More photos from the February meeting on page 20.

2019 Orchid Conservation Symposium

Melbourne VIC, 18-19 June 2019

17% of all of Australia's Nationally threatened flora are orchids, with the majority of these species found in south eastern Australia, making orchid conservation a national priority. Hosted by the Royal Botanic Gardens Victoria (RBGV), the two-day workshop will bring together community groups, practitioners and scientists in a workshop to engage and educate the community on current conservation research in the field and to increase collaboration between the community, practitioners and scientists. Increased knowledge sharing and network building through collaborations will reduced the risk of vulnerable or near threatened species becoming endangered. For more information go to

https://www.rbg.vic.gov.au/science/projects/orchid-conservation

Would you be interested in attending this? There are two people who will be attending from our Society but NOSSA is keen for us to be well represented at this Symposium. If it stirs you or you are merely interested, please let the secretary know by email: nossa.secretary@gmail.com It would be great to have a group attend from our NOSSA membership.

Autumn Expo & Plant Sale

Adelaide Showgrounds 10am, 13th & 14th April 2019

The next Expo and Plant sale for the Australian Plant society will be held soon. It is well worth attending. There is a huge range of plants with information to help guide your choices and lots of knowledge to tap into.

Helpers will be needed,. Don't let's leave it up to the few who always help. The work is not difficult but just requires a little time to be set aside for a rostered time. Let the Secretary know if you can help or would like further information.

Terrestrial Culture—March

Les Nesbitt

The growing season is underway although much of the activity is underground out of sight early in the month. Repotting should be completed by now. Repotting tubers with long shoots is a tricky business requiring very gentle handling. Broken shoots and the death of some plants can result. It is better to leave them until next summer.

The weather can be hot up until equinox on about March 21st Be aware that autumn is a time of rapid change. Day-length decreases by 2 hours in the 6 weeks from the 1st of March. Our orchids respond to the longer cooler nights faster than we do. All pots should be in their growing positions for the coming winter. Increase watering in March so that by equinox the mix is damp right through to the bottom of the pot. The first *Eriochilus cucullatus* flowers are usually open by the last day of March with the majority blooming in April. The buds resemble a grain of wheat when they first emerge. Thrip can be a major problem this month. Thrips love to suck on the flowers and will cause the flowers to shrivel up in a day or two. If using a pressure pack fly spray to kill thrips, hold the can at least half a metre away or you can freeze the flowers with the propellant. Repeat the spray every few days. Pull out any weeds that germinate while they are still small. The early greenhoods will be showing leaves and some of the blue tag diplodiums may be showing buds. The Greenhoods will like a weak soluble fertiliser sprayed on their new leaves as they develop.

Deflasking can be done after equinox. April is the best month to deflask terrestrials as it is cooler and more humid with enough sun to harden the leaves before the cold and damp of winter. Flasks are often the only way to get the slow multiplying terrestrial orchids. Seedlings in flask that have tiny tubers establish more successfully.

Remove the second layer of shadecloth at the end of the month or first week in April. Keep up the night time hunts for pests which get more active as the nights cool.

Autumn is a good time to build or extend a terrestrial growing area. A terrestrial house should be sealed to keep out birds and animals and have shadecloth or wire mesh sides to allow the breeze to move through. I prefer a roof of angled 50% shadecloth. Other growers use a solid roof of plastic sheeting. A solid roof means you have to water your pots by hand, which is more work. It is very important that winter sun reaches your plants so site the shadehouse away from the winter shadows of buildings, high fences and evergreen trees. Galvanised mesh benching about 750mm high will deter slugs and snails and is a convenient height for observing the pots.

For those interested in plants and soil

Brian Teakle

I am honing in on the establishment of native grasses at our farm which some of you have visited. In getting to where I am now I have found the following books very interesting;

Carbon Grazing by Alan Lauder.
An introduction to the Nutritional Composition of Australian native grasses. Rural Solutions SA .
Land of Sweeping plains . CSIRO.
On the Brink by Peter Andrews
Beyond the Brink by Peter Andrews
Dirt to Soil by Gabe Brown.

I trust this may be of interest to other members.

Brian, as well as a member of our club, is an Audit student in Ag. Science at University of Adelaide. He will be doing a set of third year subjects in the coming semester.

Please email your observations, orchid sightings or interesting experiences for this page to the editor.