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NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA

PO BOX 565 UNLEY SA 5061

www.nossa.org.au.

The Native Orchid Society of South Australia promotes the conservation of orchids through the preservation of natural habitat and through 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.

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Front cover from an original drawing of *Caleana major* by Helen Lawrence. Used with her kind permission.

JOURNAL OF THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

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The Native Orchid Society of South Australia meets every 4th Tuesday of the months February -November
NEXT MEETING 27 MARCH 2012

Tuesday, 27 March St Matthew's Hall, Bridge Street, Kensington. Meeting starts at 8:00 p.m. Doors to the hall will be open from 7:15 p.m. to allow Members access to the Library and trading table.
Alan Stephenson, the Conservation Officer for ANOS Inc. and the Conservation Director of the Australian Orchid Council, will be our **interstate guest speaker** for 2012. Alan is passionate about native orchids and the areas in which they grow. Anyone who reads orchid magazines will be aware of his articles reporting on his dealings with officialdom and rogue operators. He will talk about the native orchids of the Illawarra district south of Sydney that he knows well.

DIARY DATES

27th March AGM
NOMINATIONS FOR POSITIONS FOR THE NEXT AGM
The following nominations were received:

President	Geoff Borg
Vice President	(Vacant)
Secretary	Robert Lawrence
Treasurer	Marj Sheppard
Committee	Pamela Monk
	Bill Dear (one year)
	(One vacancy)

NEXT COMMITTEE MEETING
Tues, 3rd April. Meeting commences at 7:30 p.m.

Judging results for February

Open terrestrial species,

1st *Genoplesium rufum*,	Les Nesbitt

Open epiphytic species,

1st *Dockrillia bowmannii*,	Steve Howard
2nd *Sarcochilus eriochilus*,	Kris Kopicki
3rd *Plectorrhiza brevilabris*,	Kris Kopicki

Plant of the night,
Dockrillia bowmannii
Popular vote,
Plectorrhiza brevilabris

February Speaker

The Editor, David Hirst, provided an on screen demonstration of some computer programs he uses, in particular Nikon's 'NX Capture' which is used to modify RAW, TIFF or JPEG files to bring out the best in one's photography. His photos are taken as RAW files but with a low resolution jpeg in tandem so two images are produced at every click of the button. Some images of orchids were used to show how the different features were used to improve the photos.

David will include an article in a future journal to provide more information on topic above.

FOR YOUR INFORMATION - NOSSA NEWS

Field Trip

Bob Bates announced there would be an excursion to see Midge-orchids in early April.

2012 MEMBERSHIP NOTICE

Members who wish to pay 2012 Membership Fees electronically should e-mail NOSSA Treasurer on nossatreasurer@hotmail.com
You will receive banking details so that you can complete your subscription.
Please remember to include in your e-mail any CHANGE OF ADDRESS details.
Marj Sheppard, Treasurer"

ARTICLES / ITEMS FOR NEXT JOURNAL

Articles / items for the March journal need to reach the Editor by Friday April 6th.

NOSSA PRESIDENTS REPORT 2011

NOSSA has put in another successful year with an increase in membership for the first time in many years. These new members bring new ideas and enthusiasm which affects the whole society. One of these new ideas is the photo competition at the monthly meetings where members from afar who can't be at the meeting can be involved.

We have also supported Robert Lawrence, through the aid of a loan, to assist him publish his book "Start with the Leaves" which has been very well received. Another successful venture was the updating and revamping of Bob Bates' D.V.D. on the Orchids of South Australia with sales far surpassing expectations.

The Conservation Group and Terrestrial Study Group have again put in many hours on Field Trips, weeding days, and Surveys for Forestry S.A. and D.E.N.R. with some new sitings for S.A. and some expanded locations.

The Spring Show was again a very colourful display for the visiting public and proved to be very well attended. This was a great achievement by the ever decreasing number of growers. I think we need to look at ways we can increase our grower numbers to guarantee NOSSA a successful future and ways we can broaden the scope of the show to include greater member participation and increase the interest from the public. This member participation is something the new committee needs to act on urgently as it is our major exposure to the community. We also had successful displays at the A.B.C. garden show A.P.S. autumn and spring show and sales.

Meeting nights are still fairly well attended with a good spread of speakers from inside and outside of NOSSA.

Finally a big thankyou from Me and a big thankyou from Him to everyone who helped out with the many tasks over the year and I wish NOSSA all the best in the future.

Bill Dear

CITATION TO SUPPORT NOMINATION FOR LIFE MEMBERSHIP CATHY HOUSTON

This nomination is accompanied by 31 signatures.

Cathy was Secretary for 13 years, beginning in her first year of membership of NOSSA

Her large network of connections and links with organisations, environmental departments, members and individuals from the general public include:

On Yorke Peninsula promotion of orchids at field days, country shows, and by leading orchid walks, helped landholders identify their orchids, and given talks about orchids

Working with Greening Australia and DENR staff to initiate Conservation Action Planning and the introduction of Tammar Wallabies to Innes N.P.

Organised and co-ordinated surveys, including reporting and data entry, for Foul Bay, Innes National Park, Forestry SA in the South East and DENR in the South East.

Developed and maintained contacts with members on Eyre and Yorke Peninsula, Kangaroo Island and the South-East so that they also received benefits of membership.

Volunteered to improve the lot of threatened orchids in situ e.g. in the Southern and Northern Lofty Block Threatened Orchid Project, weeding activities to improve orchid habitat, helped undertake fencing to protect threatened orchid species, and helped monitor threatened orchids.

Cathy is currently the Conservation Officer for NOSSA. She has also undertaken considerable work as part of the sub-editing committee producing the DVD ‘South Australia’s Native Orchids 2011, R.J. Bates’.

Picture competition at the February meeting

There were nine photographs displayed from at least six photographers at the last general meeting. Two of were ranked equally in the popular vote: Marj Sheppard had a picture of *Diuris brevifolia* (Short-leaf Donkey-orchid) and Cathy Houston displayed a picture of *Spiranthes alticola* (Spiral Swamp Orchid).

We would like to see more of the photographs produced by members, many of whom are enthusiastic and skilled photographers with specialised equipment. We are sure that many of these would like to share the results of their efforts. The picture competition is not so much about winning, but about sharing pictures with those who would appreciate the beauty of our orchids. Most photographs are not perfect, but many are still attractive and interesting and still worth submitting.

As we have said before, it is not necessary to attend the meeting to enter photographs. Any member wanting to enter a photograph can either post photographs to NOSSA's postal address or send an image by email to nossaorchid@hotmail.comas 300dpi jpeg files. We will print copies for showing at meetings.

Robert and Rosalie Lawrence

New Discoveries, Rediscoveries and Extension of range for SA Orchids in 2011

R. Bates

NOSSA has a Conservation and Orchid Study Group of keen members who travel the State doing orchid surveys, dealing with conservation matters and photographing rare orchids and their pollinators. As the Government has no paid position equating to this job the members are not paid but thanks to Cathy Houston's organising abilities we do receive some reimbursement of costs. The Group of some 15 members averages about a thousand hours per year on the job.
The 2011 orchid season saw below average rainfall in SA with different centres ranging from five to fifty% below average in the April to November period.

Nevertheless we located an undescribed shell orchid at Hackett Hill NFR in the SE in August during the group's survey for Forestry SA. This pretty little species is to be named *Diplodium collinum* in a forthcoming revision of the genus.

In April this year June Niejalke took the first high quality images of a new midge orchid, *Corunastylis* species Narrow segments, which although recognised before had not been added to the SA orchid list until collections and images were taken.

In September: a new Rufous greenhood tag named *Oligochaetochilus* species Upper Spencer Gulf was found by Bernie Hasse and shown to myself in his private reserve.
See article in October journal.

There were several rediscoveries of species thought to have possibly disappeared from SA. The first of these was the red-cross spider orchid *Arachnorchis cruciformis* last collected in SA near Bordertown nearly a hundred years ago. This discovery by June Niejalke and Dianne Richman in September meant that they were the first to be able to claim the NOSSA reward offered in the October Journal.

Seven weeks later during a November 2nd visit to Messent CP as part of the NOSSA Survey of a burned area in the Park the author discovered a handful of the Tailem Bend leek orchid *Prasophyllum constrictum* on a limestone rise about 50km south of Tailem Bend. This was another of the reward species, an orchid not seen for at least thirty years. See also report in Journal on the rediscovery of *Thelymitra matthewsii* in this same park in September.

When we add to these species *Caladenia pygmaea* and *C. subulata* added to the SA plant species list earlier this year it seems quite impressive, although these latter two were long suspected to be real species. See following report in Journal.

Extensions to known range include Caladenia x idiastes (the name given to any cross between *Caladenia patersonii complex* and *C. latifolia*) and was found for the first time in the Adelaide Hills (SL region) by Richard Hall. This form was also the first time a cross between *Caladenia behrii* and *C. latifolia* had ever been recorded.

June Niejalke's picture of Arachnorchis cruciformis near Keith.

Twenty reasons why the new Segregate genera of SA native orchids must be accepted

R. Bates

The current stalemate with the genus names for many South Australian native orchids has gone on too long. Fortunately recent research has shown that the segregate genera of Clements and Jones etc are far more valid and indeed more useful than the unwieldy super genera of the past.
Recent papers by Clements and others dealing with DNA have shown for example that many segregate genera in *Pterostylis*, even at this early stage of research are clearly valid genera by world standards. In addition Clements and others have shown there to be a degree of specificity in the orchid/fungi mycorrhizal association in the segregate orchid genera.

Let's look at just one of the segregate genera in super-genus *Caladenia* ie the genus *Arachnorchis* and its distinctiveness from *Caladenia* sensu stricto (based on *Caladenia carnea)*.

1: geography and Phytogeography *Caladenia* sensu stricto is a large genus of small, mostly pink and white flowered terrestrial orchids extending from eastern Australia to New Zealand with no western Australian species. *Arachnorchis* on the other hand is an even larger genus with, often large, spidery flowers, centred in Western Australia with its diversity decreasing as we approach the eastern states and with no New Zealand species. This is the complete opposite of the genus *Caladenia.* The geography gives clear support to *Arachnorchis* and *Caladenia* being separate genera.

2: morphology. The two genera are remarkably different to the point of each possessing organs not found in the other. This is a powerful, universally accepted reason for erecting a genus in the first place.
Arachnorchis species have at least two floral organs not found in *Caladenia*. The first of these is the pair of yellow waxy mounds at the base of the column, (an organ with no known purpose). No *Caladenia* species have these waxy yellow 'glands'.
Secondly *Arachnorchis* flowers have osmophores, ie gland covered trichomatous organs on the sepal or petal tips, again organs lacking in *Caladenia.*

3: pollination biology: the previous reason leads neatly onto the next reason for accepting *Arachnorchis*. The spider orchids sexually attract pollinators, in this case male thynnid wasps which are attracted by volatile allomones produced by the orchid flowers. All species of *Arachnorchis* attract wasps this way even if is not the main pollination strategy for a few of the white flowered species.
On the other hand no *Caladenia* species are known to sexually attract pollinators, indeed they are strictly bee pollinated or self-pollinated.

4: it is little wonder then that natural hybrids between *Arachnorchis* and *Caladenia* have never been recorded. This is not the case with other well-accepted native orchid genera like *Glossodia* and *Pheladenia.*

5: Vegetative characters: *Caladenia* sensu stricto have very narrow leaves without hairs, arising from tubers that lack a thick coating of fibrous sheaths.
*Arachnorchis o*n the other hand have generally and often very hairy leaves arising from tubers with fibrous sheaths. Likewise the scapes of *Arachnorchis* are usually very hairy whereas those of *Caladenia* are mostly smooth.

6: **Loss of information**: perhaps the most important overall reason for using the smaller segregate genera is that it will provide much more information on relationships and differences in our native orchids. Lumping many genera together in a super genus obscures valuable information and is detrimental to the conservation of individual species.

7: Sometimes children and non scientists have a better understanding of genera than so called scientists. Look at the way children had given us common names for the segregate genera long before scientists named them, ie 'spider orchids' for *Arachnorchis*, pink fingers for *Caladenia* and Daddy-long-legs for *Jonesiopsis.*
Likewise field naturalists had already divided greenhood orchids into natural groups: their 'rufous group greenhoods' have become *Oligochaetochilus*, their plumed greenhoods have become *Plumatichilos* and their shell greenhoods *Diplodium.*
Why not use all this longstanding wisdom and keep the segregate genera. For more detail see also point 17

8: Most people find the super-genera too unwieldy. Having 200 orchids in one genus becomes a nightmare when it comes to using a key for identification, or looking up single species quickly in a book, or remembering 200 species names! Let's get real and all accept the manageable segregate genera.

9: When we look at the super-genus *Pterostylis* as a separate example we find the untenable situation of having the Tribe *Pterostylidinaea* comprising a single genus. There are no other examples of this in the world wide terrestrial orchid scene. Lumping everything in the super-genus *Pterostylis* just does not make any sense. Clements et al. (2010) have published a great paper on DNA and the sub-tribe *Pterostylideae* citing many other reasons why the segregate genera need to be used. They do state that more work is being done on the DNA of all greenhood orchids but what has been discovered so far supports most of the new smaller greenhood genera. I don't have the paper in front of me as I write and apologise for any errors in my summary.

10: It is quite unrealistic having orchids with a sensitive labellum that flings its pollinators into the flower after sexually attracting them (as in *Oligochaetochilus*) in the same genus as orchids ie *Pterostylis*, with a non mobile labellum which use a different pollination strategy.
Essentially the sensitive, hairy, spring-action labellum of *Oligochaetochilus* is not even the same organ as the plain, floppy labellum of *Pterostylis*. We have already seen that a single genus cannot comprise groups of species with different sets of organs.

11: At this stage it is politics rather than science which is conserving the use of super-genera at the expense of more workable segregate genera and this is in no way acceptable.

12: We should never let a few technicalities prevent the use of a reasonable set of generic names. And yes there are still a few arguments to be had before settling on the best set of names. We do not want generic names based on freak type specimens as in *Petalochilus* or worse, *Sullivania* and there are ways of showing those names to be illegitimate.
Also we do not need names that were never intended by their authors to be used as genus names such as *Phlebochilus* and *Elevatae* and fortunately rules have been suggested for preventing the use of these at genus level, so let's get on with eliminating them.

13: chromosome numbers: although not generally taken as enough reason for separating genera these can throw some light on the separation of smaller genera. *Nemacianthus* for example has a chromosome count of 64 while the larger genus *Acianthus* has 2n =40. This is quite a handy point for separating genera sharing many morphological features.

14: In the case of *Corunastylis (the midge orchids)* versus *Genoplesium* it is important to note that tuber producing *Corunastylis* species were once in the similarly tuber producing genus *Prasophyllum* (the leek orchids) while *Genoplesium* based on a single species stood alone. It is really quite un realistic to treat species which produce new tubers annually as belonging to a genus which has a perennial rhizome and never produces tubers.

Corunastylis is not actually the earliest name for midge orchids. When these midge orchids were placed in a different genus to leek orchids all Australian herbaria were happy. Now it seems that when there is no valid reason not to accept *Corunastylis* that politics come to the fore and we are told to accept a lumping that is not scientifically sensible.

15: Let's look at ***Caleana*** (Flying duck orchids) versus *Paracaleana (*Little ducks).
This segregation by Blaxell is not recent, nor is it a clear segregation, even on morphological grounds, as some species of *Paracaleana* share the features of *Caleana.* Nevertheless when they were segregated forty years ago the move was well accepted by all Australian herbaria.
Personally I have never been strongly convinced that the two should stand but I can see the advantages of keeping them. See below.

The three main reasons for accepting *Paracaleana* are
1: DNA supports the separation.
2: *Caleana* is pollinated by sawflies, *Paracaleana* by thynnid wasps.
Yet both sexually attract these pollinators which once they grasp the labellum are thrown into the column by this highly sprung, mobile labellum.
3: fortunately there is one morphological feature separating them at generic level, ie *Caleana* has a smooth non glandular labellum while the labellum of *Paracaleana* is glandular not smooth. In the orchid world this is usually enough to erect a separate genus.
I am quite happy to keep *Paracaleana* as a subgenus of *Caleana* as this helps us avoid the vexing use of another name for it ie *Sullivania*, something I never want to see used.
16: two hundred year old names for segregate genera: Prior to 1850 there were already genera split off. Brown's *Cyrtostyli*s the gnat orchids was in 1810 already recognised. *Diplodium* for the shell orchids is even older; the same goes for Brown's *Corysanthes*, *Leporella*, *Leptoceras* and so on. All of these were later lumped without good scientific reason.

17*:* **Vernacular names as an indicator of orchid genera:**
In point 7 we were reminded that the segregate genera reflect the vernacular names which have been used ie mosquito orchids are *Acianthus*, Gnat orchids are *Cyrtostylis*, Mayflies are *Nemacianthus.*
This same pattern can be seen for most super-genera:

Supergenus *Caladenia*: spider orchids became *Arachnorchis*, Daddy long legs became *Jonesiopsis* and pink Finger orchids stayed *Caladenia.*

Supergenus *Pterostylis:* Bearded or plumed greenhoods became *Plumatichilos,* Shell orchids became *Diplodium; striated greenhoods became Bunochilus,* The rufa group became *Oligochaetochilus*, Jug orchid became *Stamnorchis*, Frog orchid became *Cranorchis* and Little greenhoods or Snail orchids became *Linguella.*

Supergenus *Prasophyllum:* Midge orchids became *Corunastyli*s and Leek orchids remain the only true *Prasophyllum* (at least in my opinion)

Caleana: all little duck-orchids became *Paracaleana* many years ago and only the flying ducks remain as true *Caleana.*

More individual case studies:
18: *Hydrorchis* and *Microtidium* are well separated from *Microtis* (the onion orchids) with which they were previously included. They are separated by DNA as shown by several studies i.e. Jones and Clements et al. 2004-2011.

They are ecologically separated from *Microtis* by being aquatic, both growing in vernal pools and both capable of flowering under water although they normally flower when water levels drop in late Spring. Some Microtis like boggy ground but none require flooding to flower, hence none are aquatic.

Neither ***Hydrorchis*** nor *Microtidium* produce those end of dropper-root tuberoids found in all *Microtis*. Neither do their flowers have labellum calli or callosities as in *Microtis*, both features pointed out by Bates in 1976 and both good reasons for treating them as separate genera.

Their chemical structure is also distinct from *Microtis* as evidenced by the whole plant of *Hydrorchi*s and *Microtidium* when dried and pressed leaving a black stain on paper, something which does not happen with *Microtis.* By world-wide standards they would be accepted as separate genera on the above facts alone, so for consistencies sake we should do the same here in Australia.
Both *Hydrorchis* and M*icrotidium* should be regarded as monotypic genera probably pre-dating *Microtis* in origin as indicated by Australia wide distribution.
We can only guess what Robert Brown would have done if he had seen *Hydrorchis* during his time in Australia. When *Hydrorchis orbicularis* was first seen by an orchid botanist it was during a long period of 'lumping' hence it was first named as *Microtis orbicularis* and not considered a separate genus.

19: ***Oligochaetochilus* versus *Pterostylis.***
The genus *Oligochaetochilus* (the name means 'many bristled labellum' described by the Polish botanist Schlazetko in 2003 is well removed in a dozen ways from the super-genus *Pterostylis*. The very fact that a Polish chap who had never been to Australia could see that the old, so-called 'Rufa group' of greenhoods were not true *Pterostylis* counts for a lot on its own.

The fact that field botanists regarded the rufa group as a separate genus for eighty years before they became *Oligochaetochilus* is also important.

Oligochaetochilus is a genus of multi-flowered species. *Pterostylis* on the other hand are single flowered.

Oligochaetochilus species are non clonal and do not produce roots as such, so cannot produce dropper-root tuberoids, *Pterostylis* on the other hand is a genus of long- rooted, clonal, vegetatively increasing species with dropper-root tuberoids.

Oligochaetochilus species have flowers with deflexed or pendulous, conjoined lateral sepals while *Pterostylis* has free, erect lateral sepals.

Oligochaetochilus species have the labellum set outside of the galea or orchid hood and fringed with setae while *Pterostylis* species have a labellum partly contained within the hood and with glabrous lamina.

Oligochaetochilus species have callous plates as ornamentation on the labellum lamina while the labellum of *Pterostylis* is smooth.

Oligochaetochilus species have the labellum insectiforme, highly mobile and sensitively sprung as in the well known trigger plants but *Pterostylis* has a simple, non sprung labellum which moves only slowly under pressure. The two genera have different pollination strategies.

Oligochaetochilus have an Australian wide distribution and a probable inland origin, *Pterostylis* has a more coastal eastern Australian origin and does not extend to WA although they extend eastward outside the Australian continent. On geographic evidence separate genera.

Sun loving *Oligochaetochilus* species have many strategies to conserve moisture loss; *Pterostylis* species are very sensitive to moisture loss and grow best in shaded sites.

DNA studies clearly support *Oligochaetochilus* as being a different genus.
Oligochaetochilus are very dependent on a separate suite of soil fungi to *Pterostylis* and unlike the latter remain in a mycorrhizal association in the adult stage.

Biologically *Oligochaetochilus* are very different to *Pterostylis* at both the molecular level and in their ability to have their tubers survive years without moisture while tubers of the latter desiccate quickly.

The genus *Oligochaetochilus* is thought to have speciated rapidly in recent times to the point that there are many undescribed taxa which if they are included in *Pterostylis* are likely never be named and described.

20: super-genus *Acianthus* versus small genera *Acianthus, Cyrtostylis* and *Nemacianthus.*
When Robert Brown, the father of Australian Botany, first saw *Acianthus* the mosquito orchids and *Cyrtostylis* the gnat orchids more than 200 years ago he instantly recognised later thought it might be simpler to lump them and so they all became *Acianthus* for more than 100 years. Surely if children and old ladies recognised them separately as mosquito orchids, gnat orchids and mayflies it was a no-brainer that they are three separate genera. After all even the hundreds of genera of *Compositae* are all called 'daisies' in the vernacular.

Let's look at features that support the three genera. Firstly DNA tests show that all the many true *Acianthus* species are so closely related that the mayfly orchid *Nemacianthus caudatus* is wildly out of place lumped within that genus. Indeed scientists for a hundred years referred to the old *Acianthus caudatus* as an aberrant (read not belonging with) *Acianthus.* Is it better to keep aberrant species in the wrong box or is it better to put them in their own box? (redundant question).
Acianthus sensu stricto is a genus of autumn flowering orchids widespread in the eastern states, especially diverse in NSW and Queensland and entering the tropics.
Nemacianthus is a spring flowered genus from the cooler southern coast of Australia, which further differs from *Acianthus* in having a different pollination biology. *Nemacianthus* uses odour to attract insects, *Acianthus* species do not. The spidery maroon sepals of *Nemacianthus* contrast to the more mundane, short, duller sepals of *Acianthus* again indicating a different pollination strategy. We have already shown that different genera of orchids tend to have different pollination strategies throughout the world, so for the sake of consistency we must never go back to using super genera like *Acianthus* in the broad sense.
Outside of Australia there are other genera once lumped in *Acianthus* and no one seems to question their removal from that super-genus. What is our problem here? Redundant question, again' the answer must be 'politics'.

C*yrtostylis* was reinstated as a genus some twenty plus years ago without controversy, why then do we have such controversy now. There are indications that the gnat orchids first arose in Western Australia where the genus is much more diverse.

21: ***Pyrorchis* versus *Lyperanthus*.** When the genus *Pyrorchis* was published just twenty years ago thus separating the broad leaved *Lyperanthus* from narrow leaved *Lyperanthus* the move was loudly applauded. The name *Pyrorchis* meaning 'Fire orchid' is ideal. The reasons why this was accepted are no different from those I have used above to separate the segregate genera of today. Hence we achieve consistency.

So there we are, I have exceeded my 'twenty reasons'. I could go on and on treating genus after segregate genus with a hundred reasons for accepting the concept of smaller genera but I will leave one of my readers to complete the job.

22: **In summary** let's opt for consistency, scientific reason, manageability, vision, ethics, conservation benefits and so on and accept the segregate genera rather than easily overlooked sub-genera. These are only useful in a more uniform genus like *Diuris.* Surely no-one could give the same status to genus *Plumatichilos* as is given to a *Diuris* subgenus.
Work it out people!

Spiranthes, Cryptostylis Field Trip 28 Jan 2011

Cath Houston

Twenty seven members and friends met on a relatively hot day in anticipation of seeing two swamp orchids, namely Ladies tresses *Spiranthes alticola* and the Moose orchid *Cryptostylis subulata*. The first stop was Stipiturus Conservation Park. Here the water level was well down on "normal" for this time of year. In fact, the rubber boots, on which there was much emphasis as a requirement for the trip, were not really necessary. The ground was just wet, but without water covering the area. However, there were the odd bog holes along the kangaroo tracks and they may have been quite unpleasant in shoes if one went down one of those. *Spiranthes* were found in flower and bud, there being a good sampling of both all-white flowers as well as the pink- and- whites. We were on the lookout for any *S.* sp. Late Selfing White flowers, but all the whites seemed to be *S. alticola*. The former has narrower tubes with hardly expanding ends to the tubes. The highly frilled labellum margins of *S. alticola* were crystalline white.

MH, Native bee working Spiranthes alticola

A native bee was observed working one of the *Spiranthes* flowers. It systematically visited flowers working its way into the tube and then reversing out, then moved around the spiral and into another flower.

The quest for *Cryptostylis subulata* was then the next challenge. Scouts went across the heavily vegetated swamp to another area and then called we should make our way across. The *Melaleuca squamea* was closed above our heads and at our sides as we forced our way through a small kangaroo path to the open Stringybark hillside and thence to the *Melaleuca* swamp on the northern side. Here a number of *Cryptostylis* leaves were located, but there was no success in finding flowering plants. This is South Australia's only evergreen orchid species .

Following this lunch was enjoyed under the cool leafy glade of the Higgs garden, a very welcome relief for many who had struggled with the combination of heat and humidity. We do appreciate the generosity of our hosts. As an aside, it needs to be mentioned that many admired Jane & Don's lateral thinking in "creating" the new neat outhouse.

There was the usual viewing of Jane's wonderful cultural skills in the orchid houses and then, for those who were up to it, a trek to the high swamp. We were searching for the same species as those seen at Stipiturus. The vegetation was high and thick and made searching difficult. However, we did find more *Cryptostylis* leaves, but once again we were denied any flowering plants. We may have been too early for *Spiranthes alticola* which tends to flower later in this swamp.

Was it a successful field trip? By what do we measure success? Certainly not dollars and cents in this case; that makes a change doesn't it (no pun intended). Is it by the number of people attending, is it by the diversity of species seen, is it by the number of plants seen, is it by enjoying the company of others who share a common interest, is it by learning from whatever the opportunities/events of the day have offered? Whatever one uses, this day in the swamps can be measured by a number of criteria and each person present must decide for themselves. [More photos are included in the email edition]

TREASURERS REPORT

	NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA		
	STATEMENT OF RECEIPTS AND PAYMENTS 2011		
ITEM		RECEIPTS	EXPENDITURE
Memberships			
including		2039.5	
Printing, Postage,Pres.Glasses			1423.5
Meetings			
Raffles, Ann.Auction, P.O.Box Hire,		1126.1	1305.83
Hall Hire, Trading Table,Speaker			
General Expenses			
Editor			390
Secretary			
Auditor			75
Treasurer			122.32
WEB SITE Reg			30
Products			
Comm Sales of DVD			84
DVDS SA ORCHIDS		213.5	
NEW DVD SALES		5299.9	3065.39
Posters		40	24
Badges Engraving			52.5
Special Events			
Christmas BBQ			117.7
Special Items			
Insurance			943.98
Donations		15	
Awards Ira Butler/Bill Murdoch			30
LOAN R LAWRENCE			8000
Shows/Sales			
NOSSA AND APS SHOW SALES		8561.47	7155.47
LESS EXPENSES:			
Growers Payments, Judges Exp., Sashes,			
Printing & Postage	Printing, Engraving,		
TUBER BANK		127	27.35
ABC GARDENING SHOW HIRE			95
Grants			
South East Four Forests			910
The Marshes			2255.7
South East Survey		4000	
DEH Grant		1280	

Sundries			
Interest Term Deposits		1733.99	
Adelaide Bank Deposit Maturity			
Bank SA (1)	transfer	5000	
Bank SA Chq Interest & Fee		81.04	8
Term Deposit Transfers			1500
TOTALS		29517.5	27615.73

Crytostylis subulata

Spiranthes alticola photo C Houston

Diuris brevifolia **MS**