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of the
Native Orchid Society
of
South Australia Inc

Urochilus (Pterostylis) sanguineus

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NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA
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JOURNAL OF THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

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NEXT MEETING 27 JULY 2004

Tuesday, 27 July, 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. The speaker for the meeting will be Ray Clements on Cultivation, hybridisation & general care of Australian native orchids. Ray will have orchids for sale.

DIARY DATES

Sat 31 Jul.–Sun 1 Aug.	Mount Bryan/Koolunga monitoring of *Pterostylis despectans*
Sat 7 Aug.	Field trip to Monarto/Hartley
Sat 21 Aug.–Sun 22 Aug.	Yorke Peninsula weekend for monitoring *Caladenia macroclavia*
16-19 Sept.	5th Australasian Native Orchid Conference and Show
18-19 Sept.	Annual Spring Show
5 December	Annual BBQ Picnic
13-19 Sept. 2005	WA Orchid Spectacular

NEXT COMMITTEE MEETING

Wed, 28th July at the home of **Malcolm Guy.** Meeting commences at 7:30 p.m.

JUNE MEETING

Plants Benched

Epiphyte species

Dendrobium monophyllum; *Liparis reflexa.*

Epiphyte hybrids

Dendrobium Annes Rainbow Surprise; *Dendrobium* Star of Gold x *tetragonum*; *Dendrobium* Victoria Regency (Aussie Parade x Jesmond Sparkler).

Terrestrial species

Acianthus pusillus; *Pterostylis concinna* (Tas.); *Pterostylis reflexa*; *Pterostylis robusta* (2 plants); *Pterostylis sanguinea*.

Terrestrial hybrids

Pterostylis furcata x *ingans*; *Pterostylis* Ruckman (2 plants).

Judging results

Epiphyte species

1st *Dendrobium monophyllum* grown by Noel Oliver
2nd *Liparis reflexa* grown by Geoff & Pauline Edwards
No third place

Epiphyte hybrids

1st *Dendrobium* Annes Rainbow Surprise grown by Bodo Jensen
2nd *Dendrobium* Victoria Regency grown by Malcolm Guy
3rd *Dendrobium* Star of Gold x *tetragonum* grown by Geoff & Pauline Edwards

Terrestrial Species

1st *Pterostylis sanguinea* grown by Les Nesbitt
2nd *Acianthus pusillus* grown by Malcolm Guy
3rd *Pterostylis robusta* grown by Les Nesbitt

Terrestrial hybrids

1st *Pterostylis* Ruckman grown by Les Nesbitt
2nd *Pterostylis furcata x ingens* grown by Les Nesbitt
3rd *Pterostylis* Ruckman grown by Malcolm Guy

Plant of the Night

Pterostylis sanguinea grown by Les Nesbitt

Popular Vote Results.

Terrestrial Species

Pterostylis sanguinea grown by Les Nesbitt

Terrestrial Hybrid

Pterostylis Ruckman grown by Les Nesbitt

Epiphyte species

Dendrobium monophyllum grown by Noel Oliver

Epiphytic Hybrid

Dendrobium Annes Rainbow Surprise grown by Bodo Jensen

Plant commentary on Epiphytes was by Noel Oliver and on terrestrials by Les Burgess.

JUNE SPEAKER

Brendan Killen gave a video presentation of orchids in their natural state in the Eastern States. He noted that in some areas many of the orchids that were in full flower were growing in full sun in what often appeared to be a dry situation. However he did add that in these areas summers were milder and often the plants gained moisture from morning fogs. Brendan's commentary gave us a clearer picture of the natural habitat of the plants.

FOR YOUR INFORMATION - NOSSA NEWS

TROPHIES

Trophies held by last years winners will need to be brought in at or prior to the August meeting.

TRADING TABLE

To eliminate some discrepancies that have occurred in the past, those people bringing items in for the Trading Table will need to complete a list of plants etc. The forms are the same as those supplied at the Annual Show and can be filled out on the night or taken home to be completed before the next meeting.

"The Flower Hunter; the art of Ellis Rowan"

You have only a few days left to visit the South Australian Museum to view a wonderful display of paintings by Ellis Rowan. This display on the ground floor includes several paintings of orchids from around 1887.

This free exhibit closes 25th July- don't miss it.

NOSSA/DEH CONSERVATION WEEKENDS

Sat 31st July–Sun 1st August. Mount Bryan/Koolunga monitoring of *Pterostylis despectans*.

Sat 7th August Field trip to Monarto/Hartley.

Please meet 10am at the Strathalbyn turnoff from the Murray Bridge freeway. Drive up the ramp and meet just before the bridge heading to Strathalbyn. Please bring lunch. Contact Thelma (8384 4174) for further details.

Sat 21st Aug – Sun 22nd August Yorke Peninsula weekend for monitoring *Caladenia macroclavia*.

Sat 4th Sept – Sun 5th Sept. Mount Remarkable weekend for monitoring *Caladenia gladiolata*.

Please contact Joe Quarmby (DEH) for further details on the Conservation weekends. His details are: ph 8222 9432 or e-mail; quarmby.joe@saugov.sa.gov.au

In last months journal article, p. 51, on George W. Knight, One of Victoria's Earliest Orchid Growers by Greg Campbell, Gerald McCraith AM and Brian Milligan. From a continuing AOF research project, I omitted to include a caption for the photograph.

G.W. Knight J.P. FRHS. (1831-1923).

How it is Done

Reg Shooter

At the June meeting Noel Oliver benched a large plant of *Dendrobium monophylum.* We do not often see this species at meetings or shows. It is not an easy orchid to grow and flower. Noel seems to have got the knack. He has owned the orchid for about twenty-five years. It was originally mounted on a small piece of tree fern. Mounting this species in this way is the only way to go, it is a true epiphyte and attempts to grow it in a pot with its roots confined therein are doomed to failure. After a few years Noel's plant outgrew that mount and was removed to the present much larger piece of tree fern trunk holus-bolus without disturbing the roots. This is another good piece of advice as this species resents having its roots disturbed (another reason for not growing it in a pot).

The name monophyllum means; mono = single, phylum = leaf referring to the physical form of the plant that has (usually) one leaf on top of a conical pseudobulb. In its natural habitat from Northern NSW to Northern Queensland it forms large clustered masses on rocks & trees that receive ample dappled light & air movement. These conditions should be replicated in cultivation. Although this species grows in the warmer parts of Australia it adapts quite well to our conditions provided it is given plenty of water in summer, allowing the roots to dry out between watering, and kept on the dryer side in the winter. Plants that are received direct from northern climes may take a couple of years to acclimatize where they require some winter protection. But once established will tolerate temperatures down to 2°C providing they are kept dry.
Noel's plant had in excess of 25 racemes of small delicate bell shaped nodding yellow flowers giving rise to the common name of "Lily of the Valley" orchid.

The flowers are very long lasting (I have seen this plant at, at least five different venues over the passed month) this longevity of the flower is the main reason the hybridists have used it. About a dozen hybrids have been registered to date almost all of them retaining the 'Lily of the Valley' look.
Thanks Noel for bringing in this delightful little orchid in for us all to enjoy.

ORCHID GRID – June 04

Les Nesbitt

June has been cold and wet and very windy on occasions. The ground is now saturated down beyond tuber depth as I found when digging postholes for a new fence. Only *Corybas diemenicus* is not yet showing above ground and it should be up soon. After years of waiting the largest of the two plants of *Thelymitra grandiflora* in the grid is showing the beginning of a flower spike [The bush plants of this species that were eaten off by the kangaroos last year are making very small weak leaves this season. It may be several years before they are strong enough to flower again. My next task is to make several cages to protect the most vulnerable groups of plants along the fire track used by the roos to get to pasture in the surrounding farms].

Three plants of *Pterostylis robusta* are in flower and one has aborted. This is the second species to flower in the grid this year after the *Dipodium*. *Cyrtostylis robusta* is in bud.
My goal is to establish 30 Adelaide Hill's species in the grid. At present there are about 25 species counting the *Corybas*. I have recently planted out *Cyrtostylis reniformis* and *Microtis uniflora* from pots. Mature plants with the soil from pots have established successfully on most occasions as have adult size dormant tubers. I have recently

deflasked *Glossodia major, Caladenia tentaculata* (again), *Thelymitra rubra, Thelymitra nuda* and *Thel. luteocilium* directly to soil. These were flasks with no fungus. Deflasking of fungus dependent species has not been very successful with no *Caladenia* seedlings surviving from previous seasons. *Thelymitra antennifera* was deflasked successfully last year with a clump of 20 or more leaves showing in one of the 1m square grids. Hopefully the other deflasked *Thelymitra* will do as well as they are not fungus dependent and develop extensive root systems. I have also tried sowing seed directly to the grids. This is a much slower process and requires very close observation to spot any tiny seedling leaves. None have been found to date. Maybe this Spring I can hope to find some. I would love to establish and flower several *Caladenia* species in the grid. At the winter solstice the *Ptst. curta* leaves were still intact.
Will last years predator come back and nip off the leaves?

Latest update on spider orchid genera in SA **Bob Bates**

A recent paper by Hopper and Brown in the journal of the *Australian Systematic Botany Society 17 (2) 2004* has given us what may be the final word on generic and subgeneric names to be used for our spider orchids explaining why *Arachnorchis, Petalochilus, Jonesiella* and *Calonemorchis* are considered invalid, superfluous etc and how they will no longer be used either as genera or subgenera.

All of our local spider orchids have been returned to the genus *Caladenia* with the minor exceptions of *Leptoceras menziesii, Leporella fimbriata, Pheladenia deformis and Cyanicula caerulea.* Ongoing DNA sequencing supports these as distinct enough from *Caladenia* to have their own genus.

Hopper and Brown accept the following

1: subgenus *Caladenia* for all our little fairy orchids like *Caladenia carnea*.
2: subgenus C*alonema* for all the comb spider orchids like *Caladenia reticulata, C. tensa and C. behrii.* This replaces *Arachnorchis*!
3: subgenus *Phlebochilus* for all the species with just 2 rows of calli like *Caladenia capillaris and C. cardiochila* (although I might disagree with this latter).
4: subgenus *Elevatae* for the colorful species with calli on a plate like *Caladenia latifolia.*
5: subgenus *Stegostyla* for all the short sepalled species like *Caladenia cucullata*
6*:* subgenus *Drakonorchis* (although it is not South Australian) is for the species with insectiforme labella like *Caladenia barbarossa.*

I for one am disappointed that such a diverse assemblage has gone back to the supergenus *Caladenia* and hope that we will be able to keep at least some of the new greenhood genera as use of *Plumatochilus, Hymenochilus* etc would surely give a clearer picture than calling them all *Pterostylis*. Lets hope further DNA testing gives some support for this.

Bimbowrie Station has been purchased by the Government for a Conservation Park. An un-named species of the *Pterostylis rufa* group known to exist there by Bob Bates should now be preserved.

Thirty Threatened South Australian *Caladenia* species

Bob Bates

About a hundred South Australian Orchids are recognised as threatened in this state. It is not surprising that the list includes 30 'spider orchids'.
These are listed on the chart below.

Species	notes	status
Caladenia argocalla	Restricted to Mt Lofty Ranges. About 2000 plants survive.	Eci
C. audasii	Last collected 100 years ago in SE. May be different to *C. audasii*.	X? in SA. E in Aust.
C. behrii	Restricted to the southern Lofty region. Several 1000 plants.	Vc
C. 'Bordertown'	Last collected 100 years ago. Related to *C. reticulata*.	X?
C. 'Brentwood'	Known from only two locations and less than 100 plants. Related to *C. rigida*.	E
C. brumalis	Once common on YP and Adelaide area, now reduced to few 1000 plants	Vci
C. calcicola	Replaces *C. reticulata* in the SE. Population size unknown.	K in SA, also E in Vic.
C. clavigera	Less than 100 plants left in the SE	E in SA
C. coactilis	Restricted to southern Flinders as a few thousand plants.	Kc
C. concolor	Once found in the eastern foothills of the ranges. Probably none left in SA	X in SA, V in Aust.
C. conferta	Only a handful of small populations known. About 1000 plants.	Eci
C. colorata	Extinct over most of its range, less than 1000 plants known.	Eci
C. congesta	Restricted to 4 sites in the SE, about 200 plants.	Ec in SA
C. cucullata	About 2000 plants left in the SE	V in SA
C. flaccida	About 500 plants known in SA	E in SA, K in Aust.
C. fragrantissima	Less than 1000 plants left in SA	Eci in SA K in Aust.
C. 'Finniss'	Last collected near Finniss in 1960's. Related to *C. clavigera*.	X?
C. formosa	Red spider orchid, distribution not known. Less than 100 plants ?	E in SA, K in Aust.
C. gladiolata	A few 1000 plants left near Alligator Gorge, almost extinct elsewhere.	Ec

C. gracilis	Last seen in SA in the 1970's	X? but common in east.
C. hastata	Last collected in SA in 1960's	X in SA, E in Vic.
C. aff *integra*	Last seen in Gawler Ranges in 1980's	E
C. lowanensis?	Reported in Southeast. Population size unknown.	K
C. macroclavia	Known from a few small populations. About 100 plants left.	E
C. aff *minor* 'white'	Known from less than 100 plants in Adelaide Hills	Eci
C. ovata	About 100 plants left	Eci
C. richardsiorum	Known from a restricted area near Beachport. About 1000 plants left.	E
C. rigida	Restricted to the Adelaide Hills	Vci
C. valida	Two population on mainland with a few 1000 plants on KI	V
C. venusta	Less than 1000 plants left in SA?	E in SA, Vci in Aust.
C. versicolor	Last collected 1980's near Penola	X? in SA. Eci in Aust.
C. xanthochila	Last collected in 1940's in SE	X in SA, Eci in Aust.
C. xantholeuca	Not seen since 1980's in southern Flinders.	X?

*This is a conservative list. Doubtful species such as *C.* aff *amoena* in the Flinders Ranges, *C. australis* in the SE and *C. cleistantha* on KI have not been treated.

* Although I support the new generic names within *Caladenia* I have not used them here for simplicity.

*An estimated 20 species of *Caladenia* are likely to have disappeared from South Australia without ever being collected.

Key: the ratings as given are for the whole of Australia, unless shown otherwise.
X is extinct, E is endangered, V is vulnerable, K indicates threatened or rare. The letter 'c' indicates it is 'conserved' in a park but when the c is followed by the letter 'i' it shows the orchid is insufficiently conserved.

We often read in the paper about the loss of South Australian bird species yet the loss of another orchid species these days hardly raises an eyebrow.

Calanthe triplicata The Xmas Orchid

Les Nesbitt

Calanthe triplicata is a native orchid that carries a tall spike of progressively opening white flowers around Xmas time. An evergreen terrestrial orchid, it has large broad pleated leaves and comparatively small pseudobulbs. It is similar in appearance to *Phaius tankervilliae* and likes similar growing conditions in Adelaide. Both species are susceptible to scale and mealy bug attack. The bugs hide in the bases of the folded and overlapping leaves. The bugs can be killed with insecticide and oil sprays. Control ants which carry in and farm the bugs and half the problem is solved.

The plants are easily lost to black rot if cultural conditions are not correct. I have lost plants in the past without knowing what I did wrong at the time. Consequently the Xmas orchid has a reputation for being difficult to grow here. Last year I picked up a few tips at the Orchid Conservation forum in Melbourne that may help in the culture of this orchid. In NSW it grows in damp deeply shaded forests in the soil and leaf litter that accumulates on sandstone rock shelves near creeks. Moist slopes facing south and south-east are favoured sites. The orchid has a mycorrhizal fungal relationship.

So what can we do in Adelaide to help our plants grow? I suggest:

- Select a position where the plant gets morning sun but gets protection from the afternoon sun in summer.
- Use at least 75% shadecloth in summer as the thin leaves burn easily.
- Protect the plants from winter rain and keep the plants fairly dry in winter. Water freely in summer during the growing period.
- Do not let frost hit the plants.
- Assume there is the right fungus in the pot and use a topping of bush leaf litter or incorporate leaf litter in the mix
- Use a size larger pot than you would for other orchids to give the long fleshy roots room to grow.

I have two plants which both look OK at present. One is in my heated glasshouse (min winter temp 10°C, max. summer temp 45°C) where it gets morning sun through 75% shadecloth in summer and 50% shadecloth in winter. It is shaded from about lunchtime on by a philodendron growing above it. This plant has been in this position for about 2 years and it flowered last summer. It is watered almost daily in summer and kept on the dry side in winter as are the cattleyas alongside. The old growth recently died off as the new growths made last summer matured.

The second plant is in the shadehouse but up against a brick wall under the eaves of the house. It gets morning sun but is in the shade of the house from just after lunch in summer. I have had this plant about 6 months and it still looks happy enough. The old growth died off recently similarly to the first plant. It is sheltered from the rain by the house except for rain from the north. It is hand watered the same as the first plant. Acting on advice from Don Wells, it seems that I have selected good positions for both plants. Now I have to look to the potting mix to encourage the fungus. In spring I will repot to retain half the old mix, add some leaf litter and make sure it is free draining. I will try a bark, leaf litter and coarse sand mix.
Is there anybody else out there who can tell us about their growing conditions.

The Genus *Liparis*

Len Field

Named from the Greek word Liparos, meaning fat or greasy referring to the smooth glossy sheen on their fat leaves.

This is a very large Genus of over 300 species worldwide spread out over the tropical and temperate areas of the world with the greatest concentrations in the tropical regions of Asia and Oceania. In this wide-ranging habitat they may be found from sea level to above 1000 metres depending on the type of species. In some ways some of the species in this genus resemble the genus *Coelogyne.*

In Australia they are confined to the East Coast ranging from the Vic.-N.S.W. border up to Cape York in North -East Queensland and in this large area there are three groups, lithophytic, epiphytic, and terrestrial. All species in Australia of which there are ten are all indigenous with two species terrestrial and all but one are found in the tropics with four extending into N.S.W. and all with the exception of *Liparis simmondsii* which has reddish-purple flowers have small green-yellow flowers and have an objectionable odour. All grow into moderate sized plants again with the exception of *Liparis simmondsii* that grows as a small terrestrial.

Liparis species all ways produce their inflorescence from new growth with the pseudo-bulb growing larger long after the flowers are finished
While there is some doubt on the actual number of Australian species with some such as *Liparis swenssonii* very doubtful.
The ten Australian species are.
Liparis angustilabris (F.Muell) 1978 Blaxel also previous named *Liparis cuneilabris* (f.Muell. ex Benth) 1873 and *Sturmia angustilabris* 1864

Liparis bracteata Hunt 1946

Liparis coeloginoides (F.Muell.) Benth also previous named *Sturmia coeloginoides* F.Muell.1860 *leptorchis coeloginoides* (F.muell.) Kuntze 1891. *Liparis mowbulana* (Bailey)1898

Liparis condylobulbon H.G.Reichb.1862 Previously named *Liparis nesophila* H.G.Reichb. 1878 *Liparis confusa* J.J.Smith 1908 *Liparis longpipes* Lindley1868

Liparis fleckeri Nicholls 1938

Liparis habenarina (F.Muell.) Benth.1873 other previous names *Sturmia habenarina* F.Muell.1864, *Leptorchis habenarina* (F.Muell) Kuntze.1891

Liparis nugentiae Bailey 1896

Liparis reflexa (R.Br) Lindley 1825 other previous names *Cymbidium reflexum* R.Br. 1810. *Leptorchis reflexa* (R.Br.) 1891. Kuntze *liparis foliosa* lindley1825.

Liparis simmondsii Bailey 1891

Liparis swenssoni Bailey 1906

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