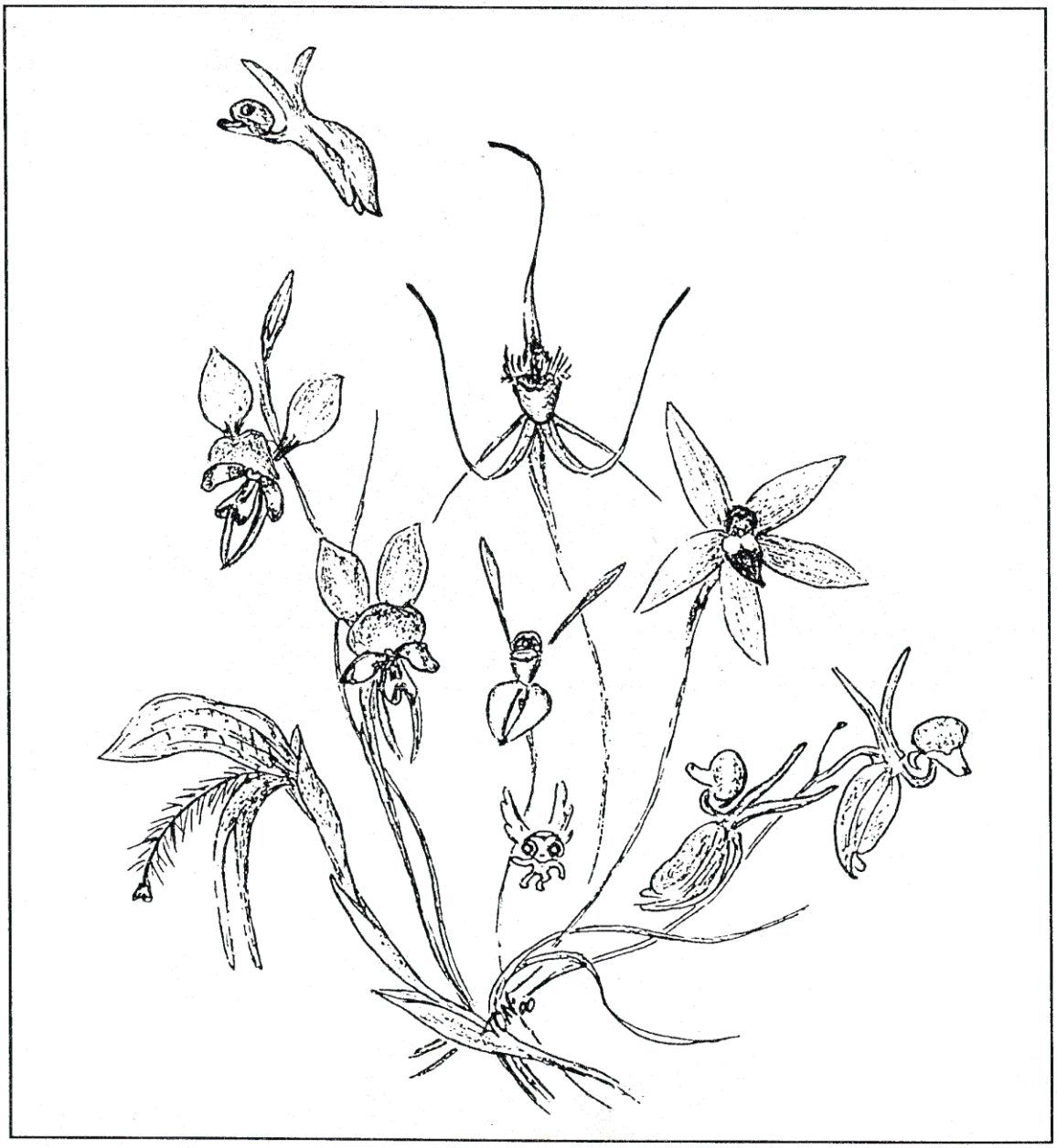
Journal of the Native Orchid Society of South Australia Inc



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NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA

POST OFFICE BOX 565 UNLEY SOUTH AUSTRALIA 5061

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 from the Management Committee no person is authorised to represent the society on any matter. All native orchids are protected plants in the wild. Their collection without written Government permit is illegal.

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JOURNAL OF THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

NOVEMBER 2001 Vol. 25 No. 10

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NOVEMBER MEETING

Tuesday, 27 November, St Matthew's Hall, corner of Bridge Street and Wellington Street, Kensington. Meeting starts at 8:00 p.m. Doors to the hall will be open from 7:15 p.m. The meeting is our annual AUCTION, and will be followed by a 'bring a plate' Christmas Supper. A really great evening not to be missed, and some terrific bargains available as well. Also, the drawing of our super Raffle. Bring a plate to share and some change to pick up some auction bargains (see page 94). This will be the final meeting for the year.

DIARY DATES

Nov 25: Society's Christmas BBQ at Wally &Shirley Walloscheck's (Sunday)
Nov 27: Annual Auction and Christmas Supper - last meeting of the year
Dec 8: Saturday Belair field trip Orthoceras strictum
February 26, 2002: First NOSSA General Meeting for 2002
March 26, 2002: Annual General Meeting - N.O.S.S.A.s 25th Anniversary!!
18-21 Sept 2003 16TH Australian Orchid Council Conference Adelaide, hosted by O.C.S.A.

NEXT COMMITTEE MEETING

Wednesday 5 December at the home of David Hirst. Meeting commences at 7:30 p.m.

NEXT JUDGES MEETING

Saturday 1st December 9:30 am at the home of Ted and Marjorie Chance

NEW MEMBERS

The Native Orchid Society of South Australia takes great pleasure in welcoming Pam Hewstone, Jane Hutchinson, and Margie Barnett as new Members. It is great too, to welcome back John and Penelope Crompton and John Wamsley as Members of the Society.

OCTOBER MEETING

Long time Member Noel Oliver presented a most interesting talk on his favourite orchid genus, Sarcochilus showing us live specimens and 35 mm slides of species, hybrids and intergeneric hybrids of this fascinating and most beautiful orchid. A large number of Sarcochilus, in particular *Sarcochilus hartmanii*, (the plant of the month) had been brought in by various Members of the Society, and these provided an ideal background for Noel's talk.

Several members asked Noel how he has become such a successful grower of Sarcs. The following is a brief summary:

Culture:
Noel grows his Sarcs under 70 percent shadecloth in a protected area, but with plenty of air movement. Don't place pots too close together, - give them some space. He fertilises regularly using fish emulsion, but commented that another well known grower, Lorraine Fagg, fertilizes her Sarcs with sheep manure (don't use chicken manure as this will burn' their root systems!). Noel used to grow his Sarcs in a mixture of a variety of media, but now prefers to use just bark, repotting when the bark looks depleted, and/or when the roots begin circling the pot. The mix must be very free draining; - Noel uses a small size bark that he obtains by the pallet load, from Mt Gambier. Humidity is important (Noel has babies tears growing on the ground under his Sarcs). Pebbles, gravel ferns, and/or mulch in the shade-house help to maintain humidity. In the summer, water every day, and if hot, twice a day, but early in the morning and in the evening in order that the heat of the sun and the water don't combine to generate a 'boiling' disaster. In the winter, if not raining, water weekly.

A most enjoyable evening. We always look forward to having Noel address the Society on *Sarcochilus* (and other epiphyte orchids). An article taken from Noel's comments and notes, including the story of the discovery of the red Sarc by Lorraine Fagg, will be published in next month's Journal.

Plants Benched
Terrestrial Species: *Caleana major, Caladenia cardiochila, Caladenia carnea* (x2), *Caladenia fuscata* (x2) , *Caladenia* "Lucindale", *Caladenia minor, Caladenia parva, Caladenia tentaculata* (x6), *Calochilus robertsonii, Diuris sulphurea, Glossodia major, Microtis arenaria, Microtis fratetarum, Microtis media* var *media, Microtis parviflora, Microtis iniflora, Prasophyllum fitzgeraldii, Prasophyllum sphacelatum, Pterostylis arenicola, Pterostylis baptistii, Pterostylis baptistii* 'Janney', *Pterostylis biseta* (x2), *Pterostylis curta, Pterostylis nutans, Pterostylis pedunculata, Pterostylis psammophila, Pterostylis pusilla, Thelymitra crinita* (WA), *Thelymitra fuscolutea, Thelymitra ixioides, Thelymitra juncifolia, Thelymitra megalyptra.*

Terrestrial Hybrids: *Diuris* Mule, *Pterostylis* Cutie 'Herald's Pride, *Pterostylis cutie* 'Two Timer', *Pterostylis* Joseph Arthur,

Epiphyte Species: *Cymbidium canaliculatum, Dendrobium kingianum* (9 of them), *Dendrobium monophyllum, Dendrobium tetragonum* (2 of them), , *Dockrillia shoenina* (2 of them), *Dockrillia striolata, Plectorrhiza tridentate, Sarcochilus falcatus* (3 of them), *Sarcochilus hartmannii* (12 of them), *Sarcochilus olivaceus* (2 of them)

Epiphyte Hybrids: *Dendrobium* Bardo Rose, *Dendrobium* Fairy Floss x *Dend.* Melody, *Dendrobium* Gilliston Gem X *Dendrobium kingianum, Dendrobium* Watervale, *Dendrobium* Sarah Jane, *Plectochilus* Lynore, *Sarcochilus* Cherie, *Sarcochilus hartmannii* x *Sarc*. Arcadia, *Sarcochilus hartmannii* x *Sarc*. Heidi, *Sarcochilus* Pink Blossom, *Sarcochilus* Otways, *Sarcochilus* Sweetheart, *Sarcochilus* Weinhart, *Sarcochilus* Yellow Cascade x Sarcochilus *hartmannii*,

A terrific showing again this month! I count 31 terrestrial species representing 9 genera and including 7 species of *Caladenia* and 8 species of *Pterostylis*, and 10 epiphytic species, for a total of 41 different

native orchid species. I also count 4 different terrestrial hybrids and 14 epiphyte hybrids for a total of 18 different hybrids. Many thanks to those growers who contributed to this tremendous showing (ed).

Popular Voting
Best Terrestrial: *Caleana major* grown by David Pettifor

Best Epiphyte: *Dendrobium* Sarah Jane grown by Noel Oliver

Judges' Choices
Best Epiphyte Species: 1st *Sarcochilus falcatus* grown by Brendan Killen
2nd *Sarcochilus falcatus* grown by Bill Dear
3rd *Sarcochilus hartmannii* grown by Don & Bub Wells

Best Epiphyte Hybrids: 1st *Sarcochilus* Cherie grown by Reg & Gill Shooter
2nd *Dendrobium* Gilliston Glow x *Dend. kingianum*
grown by Brendan Killen
3rd *Sarcochilus hartmannii* x *Sarc*. Arcadia grown by Noel
Oliver

Best Terrestrial Species: St *Caleana major* grown by David Pettifor
2nd
Caladenia tenticulata grown by Wally Walloscheck
3rd *Microtis parviflora* grown by David Pettifor

Best Terrestrial Hybrids: lst *Pterostylis* Jack Warcup grown by Les Nesbitt
2nd *Pterostylis* Cutie 'Harolds Pride' grown by Les Nesbitt
3rd *Pterostylis* Cutie 'Two Timer' grown by Graham & Sue
Zerbe

**JUDGES' PLANT OF THE NIGHT *Pterostylis* Jack Warcup grown by Les Nesbitt

Les Nesbitt provided the commentary for the epiphyte orchids,Bob Bates provided the commentary for the terrestrials.

HOW IT'S DONE Reg Shooter

The number of plants benched at the October meeting was, again, excellent. There were 48 epiphytes and as many again of terrestrials. This number of plants ensured the judges were kept on their toes. They were all of top quality, but there has always to be a winner and after much deliberation the first prize in the terrestrial section was awarded to a hybrid *Pterostylis* Jack Warcup (baptistii x furcata) grown & exhibited by Les Nesbitt.

Les grows this plant at his property in Bridgewater in the Adelaide Hills under 75% shadecloth. The pot exhibited contained about 15 flowering plants. The influence of the tall species *baptistii*, a species from Queensland, crossed with *furcata* (previously known as *falcata*) a widely distributed species from Southern Queensland, NSW, ACT, VIC, TAS and SA,an equally tall species produces a vigorous hybrid which Les says multiplies and flowers freely. It is the latest of the *Pterostylis* to flower, which makes it a desirable hybrid to have to extend the flowering season.

Les uses a mixture of sand; soil and native mulch that he collects from wash off from fire breaks in the natural bush. Being in the hills Les finds the natural rainfall is more than enough. The only fertiliser they are given is a little blood and bone at repotting time.

George Nieuwenhoven who made and registered the cross in 1991 gave the hybrid name of Jack Warcup to this plant. Jack Warcup was a botanist at the Waite Institute and a member of NOSSA for

many years. He is probably best remembered for the work he did with the under ground orchid, *Rhizanthella gardneri*.

October is known as the month for *Sarcochilus*, and at this meeting there were a total of-25 species and hybrids exhibited. Brendan Killen was successful in winning the best orchid in the epiphyte section with a beautiful specimen of *Sarcochilus falcatus*. This is not the easiest of the *Sarcochilus* to grow and flower here in SA so this is how Brendan does it. It resides under 50% shadecloth in the foothills of Belair hanging on an eastern sidewall, 1.8 metres above ground where it receives lots of air movement. This species, like many of the sarcos, grows best on a mount rather than in a pot. Brendan's plant is mounted on a piece of old Acacia wood, the same type of wood it grows on naturally in the bush. This particular piece was rescued by Brendan from an Acacia that had been blown down across the main road in a typical Darling Downs summer storm.

This plant is a very old and well-travelled orchid. Close examination of the plant would have shown you that it had covered the mount and in fact was hanging out from it. Brendan has lived in many places in Australia and the plant, with many others, has gone with him. It has lived in Toowoomba, Brisbane and Adelaide and flowered every year, two years ago in Toowoomba it produces 13 spikes. John Woolf, the well-known hybridist spotted this plant at Brendan's in Toowoomba and has been used by him in his sarco breeding. Brendan says this plant does seem to mind having a couple of seedpods hanging on it. In the wild this species can often be seen in flower with a number of last years seedpods attached.

Brendan says if the light, humidity and air movement is maintained very little fertiliser is required, he does not feed at all and only waters infrequently, at most three times a week in summer, in winter rain fall is sufficient. Perhaps if we follow Brendan's culture we may see more of this lovely species on the benches.

GIANT CHRISTMAS RAFFLE

Once again this year a giant Christmas raffle will be drawn at the November meeting. Members are asked to bring donations to the November meeting for this club fund raiser. Past Christmas raffles have been very well subscribed to with all sorts of goods such as puddings, cakes, pickles, and other goodies, nothing will be refused. Once again Gill Shooter has agreed to organise and run this raffle. Please see her with your donations at the November meeting and then purchase your $1.00 tickets from her. You might be the lucky winner!!

TUBER BANK

Donations of tubers for the NOSSA tuber bank are sought. Any number large or small will be welcome. Locality data should be included where available. Please advise Malcolm Guy at 15 Naomi Terrace, Pasadena, SA. or by phone (08) 82767350, by November the 27th (the November General meeting - see him there!). The final list with order form will be published in the December Journal. Also wanted by Malcolm are Post Office video mailing boxes

ANNUAL AUCTION

Now is the time to SERIOUSLY begin thinking about items (tubers, orchids, other plants, orchid books, brie a brat, potting media etc) that you might offer for the November General Meeting Auction (Tuesday November 27). This is another important fund raiser for N.O.S.S.A. It will be a fun evening with lots of bargains to be found. Our annual Christmas Supper will follow the auction. Not to be missed!

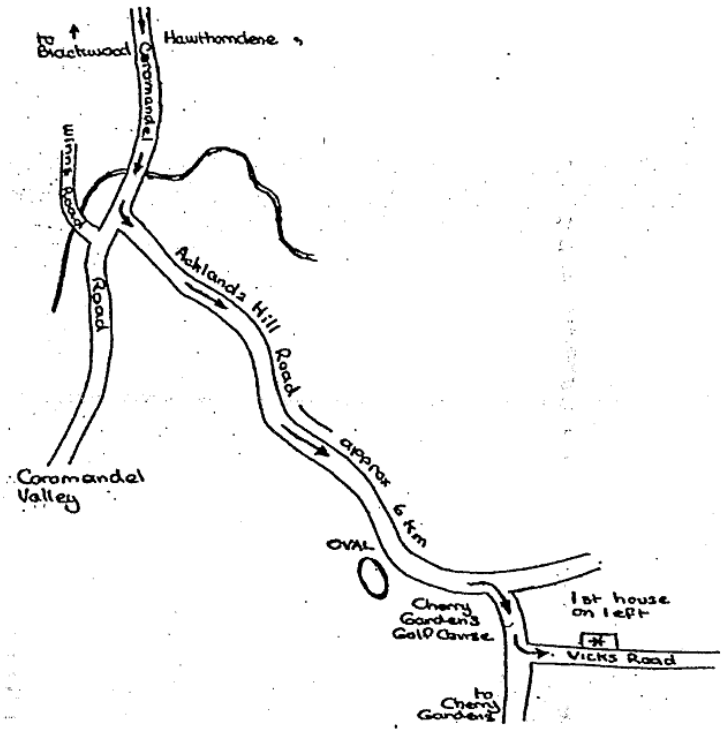
Position Available: New Members Coordinator. It is important that new Members feel welcome and be introduced to other Members, in particular Members with similar orchid interests. The Society is looking for a Coordinator to take over from David Pettifor who is unable to continue in this role.

Library: It would be appreciated if Members would return borrowed books to the Library, in order that an inventory may be taken over the Summer break

CHRISTMAS
BARBEQUE

The home of Wally and Shirley Walloscheck, Cherry Gardens

Time: 11 am, Sunday 25 November



Bring: chairs, folding table, plates, eating utensils, drinks, sun cream, hat.

Also bring: a desert or salad to share and a $2.00 donation.

N.O.S.S.A. will provide the meat. This is an event not to be missed, fun for all, - a great time to catch up with other members

The March meeting in 2002 will be the AGM and the start of the year of the 25th Anniversary of the Society. Members are asked to start thinking about bringing items of memorabilia such as slides, photographs. etc to that meeting As 25 years is the silver anniversary emphasis will be placed on white flowers (or silver ones!!) more information will be forthcoming in the new year. If any members have any ideas how to celebrate this important milestone please speak to one of the committee.

UPCOMING FIELD TRIPS

Saturday 8th December:

Orthoceras strictum at Belair. Meet at the main entrance to Belair National Park at 2pm. As there is an entrance fee payable we will take as few cars as possible into the park.

ONE HUNDRED WESTERN AUSTRALIAN CALADENIA NAMES VALIDATED

R. Bates

The latest edition of Nuytsia, the journal of the Western Australian Herbarium vol. 14 number 1-2 (Oct 2001) is completely devoted to Western Australian *Caladenia*.

A taxonomic revision of the genus in WA based on studies carried out by Hopper and Brown over the last twenty years has at last been published. It contains no surprises as we have seen the majority of 'new' names used for many years in Orchids of South-west Australia by Hoffman and Brown where the species are illustrated in glorious colour! However in, this volume all the new names (and there are over 100 of them) are validly published with Latin descriptions and Type citations.

As expected we see the invalid genus *Draconorchis* kept within *Caladenia* as a subgenus. Hopper and Brown create five sub-genera of *Caladenia* mostly of section names we have seen before. These include subgenus *Caladenia* which contains all those with short colourful segments such as *C. carnea*; subgenus *Calonema* for all the spider orchids such as *Caladenia argocalla* and *C. tentaculata*; subgenus *Elevatae* which covers colony forming species with a plate of calli like *C. flava* and *C. latifolia* (the only SA member); and subgenus *Phlebochilus* which contains the short segmented wasp pollinated species like *C. cardiochila*. These sub-genera are backed up by DNA sequencing although more work may need to be done on theCaladenia *filamentosa* complex species to show where they really fit.

Hopper and Brown keep the four allied genera which have been split off *Caladenia* ie *Cyanicula, Leptoceras, Leporella,* and *Praecoxanthus*.

There is a very well written section on the early history of orchid discovery in Western Australia which I particularly enjoyed. The authors clearly spell out their concept of species and subspecies. This concept is pretty much identical to the concepts being used by Jones, Clements, Carr, Bower and others in the Eastern States and matches my own as well as that developed in recent times in New Zealand. This concept of species is based on biological evidence as well as morphology and supported by DNA sequencing. It is much more workable than the old 'polymorphic species ' concept which meant that a great variety of forms, from different habitats, different regions and with different flowering times were accepted as one species.

There are even a number of hybrids named. There have been almost a hundred suspected *Caladenia* hybrids collected inWA but only those which are unmistakable and do not back cross have been named. One surprise found is a reference to plate 51 in Orchids of South Australia which is purported to be an illustration of *C. x idiastes*, a cross between *C. latifolia* and *C. gardneri*. But plate 51 is actually of a *C. latifolia* x *C. brumalis* photographed in SA. Curiously enough I do have a photo of *C. latifolia* x *C. gardneri* which I took in WA. This is of iridescent pink flowers with very narrow segments.

None of the names apply to South Australian species although Hopper and Brown do equate their *Caladenia paradoxa* to *C. filamentosa* var. *tentaculata* Tate but the name *Caladenia capillata* Jones predates it. Similarly with *C. microchila* which they also consider to be likely in South Australia. I have seen both species, the flowers of which closely match forms of *C. capillata* on Eyre Peninsula. The leaves of the WA plants however are rather more hairy. DNA sequencing may be the only way of testing the relationships between the three. Oct 2001

SOUTH AUSTRALIAN WOMEN ORCHIDOLOGISTS AND ORCHID PAINTERS
NUMBER 5 Mary Hindmarsh - the first person to paint orchids in South Australia!

Bob Bates

Mary Hindmarsh was born in England in 1817, daughter of Captain (later Sir) John Hindmarsh, one of the most decorated British navy men of the century having fought with Nelson at Trafalgar. Being the daughter of a well to do gentleman Mary was given lessons in music, art and dancing.

The autocratic Captain Hindmarsh was, in 1835, appointed as the first governor of the fledgling colony of South Australia but before he'd even left England plans were under way to scrap his appointment.

The large Hindmarsh family arrived on the Buffalo in 1836 and Mary Hindmarsh was certainly present during the Proclamation at the Old Gum Tree on Dec 28 1936 as the Mary Thomas letters record that "a toast was proposed to Mrs Hindmarsh and the Ladies".

Mary quickly became acquainted with family friend George French Angas and after settling in, the two could be seen together painting scenes and wildflowers about Adelaide. In July and August of 1837 while Angas was sketching local Aboriginals Mary was painting a set of delicate native orchids near Burnside. These were the first South Australian orchids to be painted and appear in Angas' 1847 publication "South Australia Illustrated." They can be seen on plate 50 with numerous beetles. (not painted by Mary).

The species in Mary's painting were *Caladenia behrii* and *Pterostylis robusta*, neither of which had been named at the time, however Mary's work is of a high standard and the species are easily identified.

It was Mary's father who had wanted the capital of South Australia shifted south to Victor Harbour. If he had got his way the family may have stayed on, but time was fast running out for Captain Hindmarsh as Governor of South Australia and in early 1838 he was sacked, and the family returned to England in July of that year. (The South Australian affair was the only blemish in Hindmarsh's career). On her return to England Mary chose marriage over painting.

We are fortunate that such early paintings as Mary 's orchids survive and indeed that Angas painted the Adelaide scene in the 1830's and 40's as it allows us to see what a lovely parkland vista greeted the early settlers.

{Captain Hindmarsh was one of a hundred people to subscribe to South Australia Illustrated, perhaps persuaded to do so by Mary because her painting was to be included}.

References: Angas, G.F. South Australia Illustrated, 1847. (available at the State Library)
Thomas, Mary 'Letters from Adelaide'

The Genus *Sarcochilus* RBr. 1810 Len Field

The genus was name by Robert Brown in the year 1810. While nearly all are endemic to Australia with the majority small epiphytes or lithophytes that are confined to the east coast of Australia stretching from Tasmania to Cape York Peninsular where in this large area they are found growing in many various conditions. Named by Robert Brown from the Greek word sarx meaning fleshy and cheilos, a lip in reference to the fleshy labellum on some species.

Sarcochilus falcatus R.Br. 1810 Len Field

Previously known as *Thrixpermum falcatum* (R.Br.) H.G.Reichb. 1874
Sarcochilus montanus Fitz. 1879
Sarcochilus falcatus R.Br. var. *montanus* (Fitz.) C.Moore et Betche 1893
Common name The Orange Blossom Orchid

Named from the Latin "falcatus" meaning sickle shaped. A reference to the shape of the leaves. The most common and widely distributed of the entire Sarcochilus genus it was first collected by Robert Brown in 1804 at Port Jackson. He later described the species when creating the genus *Sarcochilus* while travelling as a naturalist on Matthew Flinders voyages in H.M.S. Investigator. This description was written in his PRODROMUS of 1810. This prodromus also described 115 other Australian orchids that he had collected. All these specimens were originally lost when H.M.S. Porpoise was lost in 1803 but Brown had duplicates and also collected another 500 specimens in the Sydney and Hawkesbury River areas. The type plant was thought to have been collected at either Paterson or on the Williams River in the Hunter Valley N.S.W. and is now in the British museum with all Brown's other specimens.
Found in a wide ranging area that extends from Eastern Victoria through N.S.W. and up to the Bloomfield River in N.E. Queensland where in this area it is better established than all of the other Southern forms of *Sarcochilus*. A colony forming semi pendulous epiphyte and although rare can also be found as a lithophyte. It will grow into small clumps although some large clumps are on occasions found. In its Southern area it occurs from the lowlands up to 1100 metres. While in the tropics it is

confined to the higher ranges usually growing above 600 metres. In Victoria while once very common it has now become rare due to loss of habitat and extensive collecting. Throughout its large growing area it has a large range of habitat but does like to grow in shaded rainforest mainly where it can find a fair amount of light and good constant air movement. It also has a liking for areas that have volcanic soil. After land clearing it can often be found recolonising the area, where it will grow on lone trees in cleared areas usually growing on the Southern side of the trunk to escape the harsh sunlight, while in the Northern areas it is confined to the high rainfall areas where it can be found growing in gorges and on the ridge tops in the cloud and mists where again in these cool wet areas it can be very common and here also like its Southern family it is a great recoloniser of cleared land

It does like to bury its extensive root system into tree mosses or another favourite is the rock fern (*Pyrrosia rupestris*) which it again likes to bury its roots into the matted fern growth. I have often been amazed at this vast growing habitat, as I have seen them growing on the Southern side of a tree in baking temperatures in a cleared paddock and also in the Barrington Tops completely covered in snow during the Winter and come Spring the plants will happily grow and flower with no apparent adverse results. Another extreme that I have noticed is to have seen them growing on the Tablelands in North Queensland in deep rainforest where they would hardly have ever seen the sun living in perpetual gloom and mists again with no apparent ill effects.

A small to medium sized plant with a semi pendulous habit, which can be recognised by its stiff fleshy leaves, which are falcate (Hence the name falcatus). Another oddity is that the old inflorescence will turn black. This is unusual and does not occur in other members of the genus. Leaves number from three to about ten and are coloured a pale green, about 50mm to 140mm long on stems which can be 10mm to 90mm long. It also has a vast root system that can spread more than one metre in all directions.

Flowers. The flower racemes curve down in a graceful arc numbering from one to three that hang downward from under the leaves and can be as long as the leaves. These flowers which can be from three to twelve in number, have a great variation depending on the size of the plant with some having a large form with pale yellow markings on the lip and distinct tuberoses like scent, Others are snow white with purple stripes on the back of the sepals and orange or purple markings on the labellum. These have a delightful fragrance not unlike the smell of orange blossoms. It is from this aroma that the common name of orange blossom orchid derives. A pure white form exists and is fairly common also so does a pink form and although this is exceedingly rare it has been recorded in several different locations. Flowers can be 20mm to 30mm in diameter depending on the type and where the plant comes from. These will show a great range of variation with most flowers opening wide while others will remain cup shaped and again some will have slender segments while others have broad and overlapping segments. While not a long lasting flower they can at times last up to three weeks but it is more usual for blooms to last about one week. In Southern areas the flowering period is September to October while in the tropics it is June and July although tropical plants will revert to Southern times in a couple of seasons if moved to these areas.

Cultivation. While some people have difficulties growing it others find it an easy and popular plant to grow in cool and humid temperate climates and it is well suited to bush house culture. It also grows exceedingly well on backyard trees, but whether it is grown in bush-house or on backyard trees always tie them on to there host with the plant facing South so that there backs are to the sun. This is essential in the hot summer months. Although I have grown them in pots a good slab of old fence paling or a ti-tree pole takes some beating. While in nature they will grow on almost anything it is not so in cultivation for here the root system does not reach the size and length as it does in nature. Even with this smaller root growth it still requires plenty of room for this spreading system so choose your host carefully natural cork is also right to use but it is NOT recommended to use tree fern fibre.

When repotting or rehanging carefully inspect the root system and cut off any extra long damaged ones, as they will become a hindrance later. March and April are the best times to remount, as this is the time that they send out their new growths. Some bush moss is helpful when mounting as it will dampen and create a humid atmosphere. Do not use Sphagnum moss, as this will retain too much moisture that can cause rot in the plant. After mounting soak the plant in a fungicide or formula 20 for a short period as this will help the plant with its new growth eyes.

All the year round and in the hot Summer months they should be lightly damped down but this again should be done with care as they are very intolerant to permanent damp roots and for this reason in my opinion I think slab culture gives the plant more chance to overcome this problem but if you do prefer to grow in a pot a very good drainage is a must and the roots should be exposed as much as possible. They are also very susceptible to scale, mealy bug etc. in particular. on the underside of the leaves and here again hanging them keeps them away from these and other nasties such as snails, slugs, slaters etc. but the biggest danger is from black rot which is usually caused by over-watering. This starts on root tips and eats back into the crown of the plant.

Calochilus cupreus in South Australia Thelma Bridle

A single flowering specimen of *Calochilus cupreus* was located growing in the coastal sand of Aldinga Scrub Conservation Park on l' October, and eagerly photographed by many of the 16 people who had come to see it. The illustration by Rosa Fiveash taken from Blacks Flora of South Australia (1922 edition) illustrates *Calochilus cupreus* as described and named by R. Rogers in 1918. The site where he collected specimens at McLaren Vale has long since been cleared.

This orchid is only found in small numbers. It has a large leaf, well opening, colourful flowers and is early flowering. The erect dorsal sepal has an acute tip, petals have erect tips and the lateral sepals are longer and narrower than the dorsal sepal. These floral differences make *C. cupreus* a valid name for this variation of *C. campestris* named in 1810 by R. Brown, from a type collection in NSW. Pollination is by a Scollid wasp (*Campsomeris tasmaniensis*). Plants are also self-pollinating, but very difficult to hand-pollinate.

The other form of *C. campestris* occurring in South Australia has very small, hardly-opening flowers, or leafless with stem bracts, and occurs in mallee regions.

FIELD TRIP REPORT - KYEEMA CONSERVATION PARK 14/10/01

Thelma Bridle

Kyeema Conservation Park has quite a range of native orchid species but they tend to be scattered and only in small numbers. Nine NOSSA members visited the park on 14/10/01. Our first find was *Monadenia*, now *Disa bracteata* in the Children's Forest area, currently easily identified amongst the grass. Spring flowers were beautiful in the bushland and *Cheiranthera alternifolia* (hand-flower) was particularly striking with its intense blue flowers. *Thelymitra* species were fairly numerous, particularly *T. pauciflora*, both blue and white, and we were very pleased when Cathy found a small group of *T. benthamiana*. Most of these had flower buds - too early for flowers in this species, but again a day unsuitable for sun orchids. Whilst *Caladenia carnea* flowers were going over or in seed, some very pale pink buds just opening were considered to be those of *C. vulgaris*, the late flowered variety of *C. carnea.*

The *Pterostylis nana* rosettes were very small, possibly the "Hale" type, but too late for flowers to assist the identification, and a colony under the stringybarks had pointed leaves. There were a number of *Prasophyllum* buds about to burst or just out of the sheath, all with some way to go to flowering, but probably *P. odoratum*, judging by the white visible on a few buds. The buds varied from quite sparse on the stem to densely packed.

Calochilus robertsonii flowers were just opening and the beards were glistening in the sunshine - ideal for photographs. All the plants were growing at the base of stringybarks and were found in a couple of areas visited. Birds were few, but Joan watched a beautiful male golden whistler and there were a

ORCHIDS RECORDED 14/10/01

Acianthus caudatus f/s
A. pusillus 1
Caladenia carnea fo/s
C. pusilla f
C. tentaculata f
C. vulgaris f
Calochilus robertsonii f
Diuris orientis fo
Glossodia major f
Leptoceras menziesii 1
Microtis arenaria Es
Prasophyllum datum 1
P. odoratum b
Pterostylis nana ("Hale") 1
(pointed leaf) 1 s - seed,
P. nutans f/s
P. pedunculata f/s
Pterostylis sanguinea fo/s
Pyrorchis nigricans f/1
Thelymitra antennifera f
T. benthamiana b
T. flexuosa f
T. juncifolia b
T. mucida b
T. paucijlora - blue b
- white b
T. rubra b

b - bud, f - flower, fo - flower over
1- leaf

ADELAIDE PLAINS RUFAS: FIELD TRIP TO BALAKLAVA OCTOBER 25TH

Bob Bates

What a smorgasbord of rufa group *Pterostylis* was seen by the nine participants. Our leader for the day was Ken Bayley. Ken and Barb Bayley had lived at Balaklava for, many years but have now departed for southern areas.

Our first stop was on the roadside between Balaklava and Halbury. In the mallee over limestone were dozens of tall *P. excelsa* just beginning to bloom and a small colony of shorter *P.* aff. *biseta* in full flower. Mixed in were dried plants of *P. mutica* with empty seed capsules. Further along the railway line we made a second stop in pine and mallee over red loams; more *P. excelsa*, some to 60cm tall yet with only the lowest of many buds open. These were likely to reach 80cm by December making them easily the tallest species of 'Rufa'.

Practically underneath these giants were the tiny *P. pusilla,* just ten cm tall and with the last flowers finishing. Amazingly we also found *P. 'Halbury'* an undescribed winter flowered species with dried seed pods having already released their seed, yet on the same stem flowers fully open, in one case an open flower was only two nodes above a dried and empty capsule! Once again we found *P.* aff *biseta* 'tall' but this time there were also perfect examples of hybrids between these and the *P. excelsa*.

Across the Hellfire Creek were more *P. excelsa* and *P. 'Halbury'* as well as what looked like a cross between the two -a cross never before reported. Seed capsules were seen of several other orchids, including *P. nana,. Caladenia tensa,* and *P. robusta*.

We moved on to Zachers scrub SW of Blyth for lunch, but everyone was so keen to look at more 'rufas' we did not bother to sit down for lunch. At Zachers there were thousands of *P. excelsa,* some typical *P. biseta* and occasional crosses, as well as almost finished *P. pusilla,* but the find of the day was a colony of *P. boormanii,* a species almost unknown from the Adelaide Plains these days. It is amazing that we could visit these tiny l hectare remnants in a sea of thousand of square km of wheat crops and yet find such a diversity of orchids, especially rufas so late in the season. With dozens of habitats such as red sandhills, black clay flats and cream sand plains all without remnant native vegetation, we realized that we may have lost as many as half a dozen 'rufa' group *Pterostylis* to extinction on the Adelaide Plains alone, these species becoming extinct without ever being collected. The ones that have survived must have been the very commonest, once existing in millions. Also at Zachers were dozens of *Microtis frutetorum* as well as seed pods of *Thelymitra nuda.*

Many thanks to Ken for acting as guide and to Barb and friends for a delightful tea.