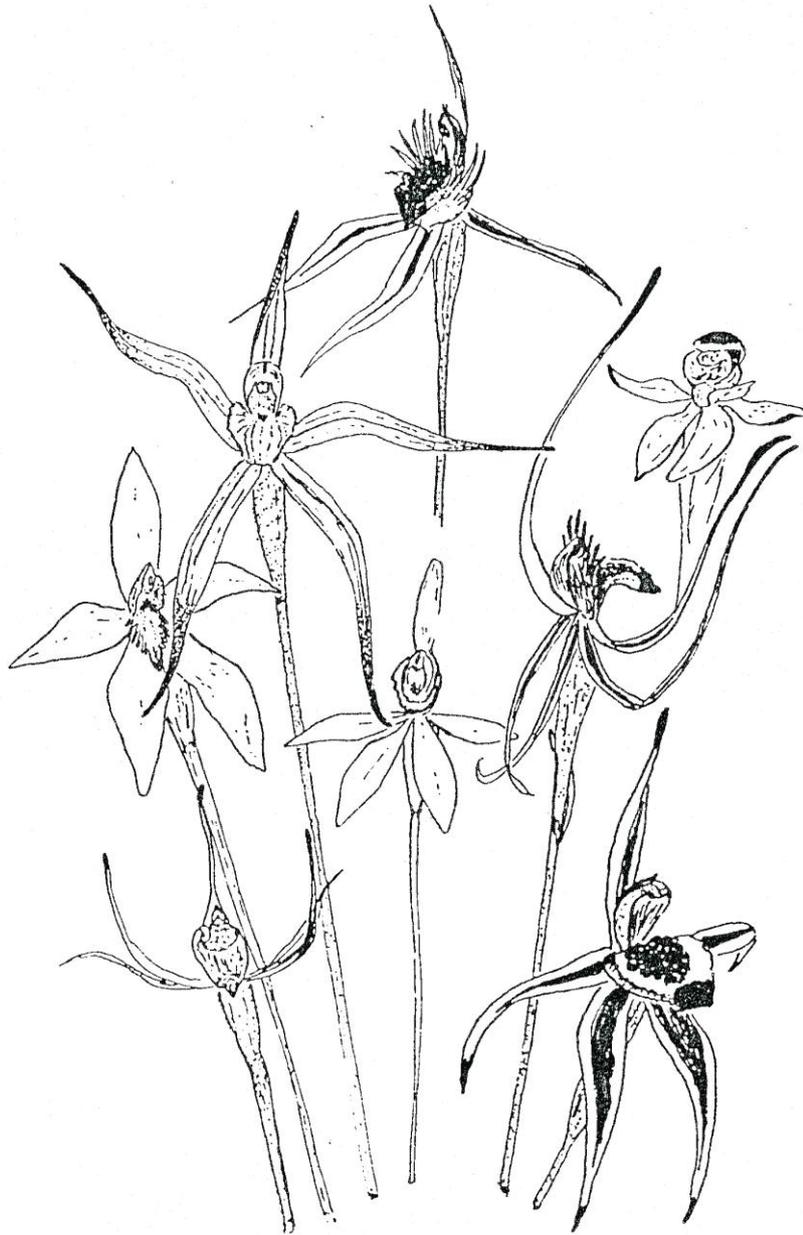




Journal
of the
Native Orchid Society
of
South Australia Inc



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.



AUGUST 2000

Vol. 24 No. 7

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August Meeting

Tuesday, 22 August, 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. Guest speaker will be David Pettifor who will speak on English Orchids. Bring lots of orchids to the meeting!!

DIARY DATES

19-20 August Yorke Peninsula Field Trip
 2-3 September Mount Remarkable Field Trip
 10 September Scott Creek Conservation Park
 16- 17 September N.O.S.S.A. Spring Show at St Peters Town Hall
 17 September Belair National Park Survey and Weeding
 23/24 September Sherlock Field Trip
 29 September-4 October South East Field Excursion
 5-8 October 4th Australasian Native Orchid Conference and Show, Melbourne
 5-6 November Wetland Conservation Awareness — Mount Compass (details in later Journal)
 3 December Annual N.O.S.S.A. Barbeque
 24-28 September 2001 First International Orchid Conservation Congress, Perth, WA

New Members

It is with considerable pleasure that the Native Orchid Society of South Australia welcomes Brendan Killen, John Newland, Craig Roberts, Ross Roberts and Susan Bradstreet as New Members.

Fourth Australasian Native Orchid Conference and Show

Melbourne 5-9 October 2000

“Native Orchids — Our Natural Heritage”

Only ONE Month to go!!!!!! -

JULY MEETING

Andrew Allanson of Bush Care, spoke on a subject that he is obviously very passionate about, - care of Australia's native vegetation. Bush Care is an organisation of volunteers who are also passionate about the 'bush' and the vegetation and animal life that it supports, a group of volunteers who dedicate their time to looking after our native vegetation and their habitats. Bush Care had its origins in 1994. By the end of 1999, there were 220 sites (including three in the Adelaide Parklands) being looked after by some 400 dedicated volunteers. Bush Care employs only two people to promote the program and to provide focus, management and direction. Only about 5% to 8% of the original native vegetation of the southern Lofty Ranges remains today. With the removal and often extinction of our native vegetation, we force the departure and extinction of animal species dependent upon the vegetation. As Andrew stated, we have an extinction debt to pay.

Andrew presented a most interesting and informative talk that was well illustrated by slides. His desire to protect and nurture our native vegetation is very real.

You may consider becoming a Bush Care volunteer and adopting an area in need of care. Perhaps two or more may work together on a single site. Bush Care provides comprehensive training through regularly provided workshops and through co-ordinators assigned to support the bush carers.

Work Outwards from the Best Quality Bush
Make Minimal Disturbances to Native Plants and Soil
Avoid Over Clearing

Plants Benched

Terrestrial Species: *Pterostylis curta*, *Pterostylis robusta* (Orroroo), *Pterostylis sanguinea*, *Pterostylis russellii*, *Pterostylis nutans*, *Pterostylis nana*, *Pterostylis hians*, *Pterostylis cynocephala*, *Corybas fimbriata*, *Corybas diemenicus*, *Corybas incurvus*, *Glossodia major*, *Cyrtostylis robusta*, *Chiloglottis formicifera*.

Terrestrial Hybrids: *Pterostylis* Dusky Duke (*Pt. pedunculata* x *Pt. curta*), *Pterostylis* Ruckman (*Pt. procera* x *Pt. ingens*).

Epiphyte Species: *Bulbophyllum schillerianum*, *Dendrobium rigidum*, *Dendrobium tetragonum*, *Dendrobium bigibbum*.

Epiphyte Hybrids: *Dendrobium* Hilda Poxon x *Dendrobium* Bright Spark, *Dendrobium* Lorikeet, *Dendrobium* Ellen, *Dendrobium* Star of Gold, *Dendrobium* Regal Affair, *Dendrobium* Aussie Child x *Dendrobium speciosum*, *Dendrobium* Ellen, *Dendrobium* Aussie Ira x *Dendrobium* Pee Wee x *Dendrobium speciosum*, *Dendrobium* Kardini, *Dendrobium* Coral Eclipse, *Dendrobium* David Baver, *Dendrobium* Kenny Green, *Dendrobium* Copper Blaze x *Dendrobium kingianum*.

Popular Voting

Best Terrestrial: *Cyrtostylis robusta* grown by Jan and Graham Burford
Best Epiphyte: *Dendrobium* David Baver grown by Betty and Steve Meszaros

Judges' Choices

Best Epiphyte Species: 1st *Dendrobium tetragonum* grown by Mark Haese
2nd *Dendrobium rigidum* grown by Graham and Jan Burford
3rd *Dendrobium bigibbum* grown by Bodo Jensen

Best Epiphyte Hybrid:

1st *Dendrobium* David Baver grown by Betty & Steve Meszaros
2nd *Dendrobium* Copper Blaze x *D. kingianum* grown by Bodo Jensen
3rd *Dendrobium* Kenny Green grown by Russel Job & Edda Viskic

Best Terrestrial Species: 1st *Cyrtostylis robusta* grown by Jan and Graham Burford
2nd *Pterostylis russellii* grown by Jan and Graham Burford
3rd *Corybas fimbriata* grown by Les Nesbitt

Best Terrestrial Hybrid: 1st *Pterostylis* Dusky Duke grown by Malcolm and Libby Guy
2nd *Pterostylis* Ruckman grown by Les Nesbitt

Judges' Plant of the Night *Dendrobium* David Baver grown by Steve and Betty Meszaros

Reg Shooter provided the commentary for the epiphyte orchids, Les Nesbitt provided the commentary for the terrestrials.

FIELD TRIPS FOR SEPTEMBER

Thelma Bridle

Aug 19th/20th: Yorke Peninsula weekend, combining both field trips and weeding. Meet: 10am opposite the petrol station on the Stansbury road at Ardrossan.

Sept 2nd/3rd: Mount Remarkable Conservation Park. This is the 2000 orchid survey area for NOSSA. Limited accommodation is available at the former Ranger's residence in the Park and will be on a first come, first served basis. Therefore I must have names of members wishing to be accommodated by the August general meeting, so that final arrangements can be made. We have permission to travel within the Park (in 4WD vehicles) to access more remote areas. Accommodation can also be obtained at the Wilmington Hotel or Caravan Park. Meet: Alligator Gorge entrance to the park via Wilmington at 9am.

September 10 (Sunday): Scott Creek Conservation Park. Meet 10 am at the corner of Dorsetvale Road and Cherry Gardens Main Road

September 17 (Sunday): Belair National Park - recording of orchids at survey sites and annual weeding. Morning only. Meet at the main entrance to the Park at 10am.

September 23-24: Mallee weekend in the Sherlock area. Meet: 10 am in Sherlock. Suggested overnight stay in Yumali.

September 29-October 4: Southeast Weekend and on to Victoria Native Orchid Conference. Please contact Thelma Bridle for further details

FOR YOUR ATTENTION - N.O.S.S.A. NEWS

Trading Table. Items are needed for the trading table. Items don't have to be orchids.

Journal Articles are sought (from you the reader). Make 2000 your year to contribute. Many thanks to those who have contributed.

Donations for our Annual Christmas Raffle are sought. This is an important fund raising initiative for NOSSA. Raffle to be drawn (and tickets sold) during November General Meeting

Tuber Bank: Donations of Tubers for Tuber Bank are sought. Please advise Malcolm Guy re what you might have this year. Listing of tubers available will be published in December Journal

NOSSA Spring Show

by Reg Shooter, Registrar of Judges

Our annual show is just under a month away. Set up will be from 1:30 pm on Friday 15th September at St Peters Town Hall. Plants will be accepted from 2:30 pm until 7:30 pm.

All plants will be eligible for judging; - no nomination forms will be required. If you do NOT want your plant judged or you have not owned and grown the plant for more than 6 months, please attach a label to the plant showing NFE (not for judging). Judging will commence at 8:00 am Saturday 16th. Only judges and scribes will be allowed in the hall while judging takes place. The show will be open to the public at 12 noon.

First and second prize cards will be awarded to the winners. The champion hybrid (terrestrial or epiphyte) will be eligible for the Ira Butler Trophy. The champion species will be eligible to compete for the Bill Murdoch Trophy. Any plant the judging panel considers is of award quality may be judged for a NOSSA award. All exhibits must have a label attached to each plant showing name of orchid and your exhibitor's number. If you do not know your number, see me at the August meeting or on put in day at the show.

Copies of the Show Schedule and Conditions were published in the July Journal; - please read them carefully. Any queries regarding judging matters please see me.

In Mt. Hagen we were glad to stay at Haus Poromun, enjoying the hospitality of an expatriate Australian, Tara. Her garden contained an endemic orchid collection including *Trichotosia* sp. and a dainty flowering *Bulbophyllum* sp. The local village helped to care for a menagerie of native animals including wide eyed cuscus, Raggania Bird of Paradise, eclectic parrots, forest dragons, green tree pythons, hornbills (large birds) & a local dingo. We took a trio of guides on our day trip to Jimi Valley as we were once again going into unfamiliar cloud forest. Famous for coffee plantations, the area was being harvested of its continually ripening coffee berries. It was strange to see some parts of the trees with fragrant white flower clusters and other parts with green berries forming due to post pollination.

Leaving the Wahgi River valley we ascended into the foothills, driving past stands of *Arenga* sp. betel-nut palms which had been planted and were tended by local landowners. Many people walked along the road aiming their orange spit at the ground as they chewed the mild stimulant mixed with lime ash. Few villages were visible from the road but garden plots of sugarcane, bananas, yams and fruiting pandanas lined the terraced slopes surrounded by protective growing fences of crotons. In between plots, *Schuurmansia henningsi*, grew as a high country shrub, its pink flower clusters spread above dark green leaves.

Approaching 2500m. we reached the primary forest edges where the mists swirled through the pass into the next valley system. Lush Impatiens ground cover splashed orange and pink flowers among the delicate Begonia flowers and red veined leaves. Thin vines climbed the tree trunks and were identified as a source of string used for making Bilum bags. These useful stretch weave head bags were worn and made by the women and used for carrying everything from the baby to the corpse. Men would never be seen carrying large loads and had much smaller ones for betel nut and essential items. We often saw women walking and making these bags and sometimes hats as they went along.

Tall, slender treeferns graced the forest and *Spathoglottis plicata* pink flowers grew in the disturbed roadbank verges. Selaginella and mosses smothered all available spaces with bright green carpets. Near the small waterfall where we lunched, *Boea hygroskopica* grew in profusion. This Gesneriad rock violet also grows in Queensland's Cape York. Closer to the water spray *B. d'urwilliana* filled its niche. We were surprised to see Acacia trees with horizontal foliage patterns dotting the montane landscape as if in Africa. Usnea hung like grey beards from the Auracaria and Nothofagus trees. We reached the Jimi River community that had recently won a soccer match against its neighbouring village and there was talk of trouble brewing so we decided to turn back before our luck changed. There was a man wearing a black cassowary hat that covered his head like an umbrella.

People tilled their fields on very steep sites that had recently been cleared and burnt. Bamboo groves and gingers, *Achrasna megalocheilos* and beautiful *Nicolaia solaris* grew in the understory of the remnant primary forest. Paul and Joseph, two of our guides decorated the vehicle with ferns and feathery grasses to celebrate our safe journey. It was a relief to see so much forest canopy stretching into the blue distance but as we drove back towards Mt. Hagen we found a portable saw woodmilling gang working turning selected trees into building timber. Being instantly available for use they were selling planks to local villagers.

Next morning we set off for Baiyer River Sanctuary and travelled by the eastern road along the river valley that had been farmed for centuries. In parts, barren and eroded by heavy rainfall, in other parts, pastured with grass we were aware that we were in one of the poorer regions where food shortages make people desperate. The Sanctuary was staffed by rangers and had facilities for visiting international and local university students to study lowland flora and fauna.

We wandered through the orchid garden where, *Acampe longifolia*, *Arachnis muellerii*, *Renanthera edelfeldtii*, *Pomatocalpa marsupiale*, and *Dendrobium macrophyllum* had been mounted on poles of wood or treefern trunks. *D. anosmum* displayed its pendant flowers as the cicada songs mingled with that of the Lesser Bird of Paradise. We searched through the original Riverine forest remnants looking for epiphytes. Hoyas and *D. trachyrhizum* were plentiful and climbed up with the lianas and Calamus palms. A beautiful, lacy, maidenhair fern graced the banks where frogs croaked and dragonflies hovered.

The tree kangaroos were fine specimens kept for breeding studies and the diversity of original habitats of the five different species housed here was not possible in captivity. Tall and dwarf specimens of Cassowary were displaying their bright, blue necks and shiny, black plumage as we watched them in their

enclosures. Of all the beautiful birds kept in the aviary, *Goura victoria*, was the most flamboyant, sporting a fragile tiara of crest feathers above a soft blue grey body. Many butterflies flitted from the sunny flowers to the water's edge.

Leaving via the western road along the valley, we returned through some *Pinus* sp. plantations and avoided road blocks that may have been set to capture us on the other road we had taken in the morning. Luckily our driver was able to leave us safely at our lodgings, where we chatted with film-makers and holidaymakers about their dangerous experiences while in transit. Travelling with the first ever Jewish group from Israel, we flew over the Southern Highlands to Tari at 1500m. This small town was the cultural centre of the Huli people. They are famous for their wig wearing customs.

The forty five minute drive up to Ambua Lodge at 2150m. was through riparian vegetation near rushing rivers, past food crop plots, palm groves and bamboo thickets to lush rainforest stands. It was a delight to stay in the well spaced, traditional huts that had beautiful views down the valley. The main hall had massive, carved beams and was the meeting centre for our guides to take us up to Tari Gap to see the habitat of the 13 most diverse Birds of Paradise of 160 bird species recorded for Ambua. We walked along the jungle track near the lodge first, to get acclimatised to the altitude and humidity which was very high.

The awesome waterfall near the lodge roared as we tramped along the muddy track towards it, learning about the local medicinal and useful plants from Nelson, our Huli guide. Vine to chew for toothache, leaves to put on the brow for headache and fever and large, spongy leaves to towel yourself dry, were all identified. We saw a suspension bridge made solely from vines and bamboo from the forest and found it surprisingly sturdy. The gardens around the lodge were planted with numerous, endemic, terrestrial orchids including *Malaxis latifolia*, *Phaius australis* and *Acanthephippium papuanum* which had bright pink flowers.

There were several shadehouse areas where alpine orchids were mounted and displayed. *Dendrobium cuthbertsonii*, *D. cyanocentrum* and *D. pentapterum* were flowering in profusion of shapes and colours. The yellow tubular bell flowers of *Dendrobium phlox* with downward pointing clusters may be mimicking an epiphytic rhododendron to hijack the birds that are its pollinators. A similar two tone orange, yellow flower was as yet unnamed and *Mediocalcar* sp. had waxy bell flowers. *Coelogyne fragrans* was locally abundant.

Dawn bird chorus was a magic time with misty treetops hidden from view streaming with rays of light as the sun rises and begins to warm the forest. The excitement of hearing and seeing several species of Birds of Paradise was only the beginning of a wonderful day. We later travelled to the cloud forest where the enchantment of being surrounded by flowering orchids in the wild was pure ecstasy. The trees were stunted and smothered with moss, ferns, lichens and up to eight species of orchid on one host. Butterflies flitted through the emerald spaces between the leaves and flowers.

Joseph, our guide, was collecting special colour forms for the Lodge collection and we were looking for seedpods. It was amazing to see the sphagnum moss hosting seedlings and pseudobulbs of *D. cuthbertsonii* growing at all levels from the ground cover up and flowering in full sun as well as heavy shade at 2900m. The very common *D. dichaeoides* grew in small tufts among the lichens on the undersides of branches, with distinctive leaves right angled arrangement to the stem and terminal flowers clusters of up to ten cerise flowers. *Bulbophyllum fletcherianum* grew as a lithophyte on mossy banks and had 30cm. pendulous leaves. *Sarcochilus chrysanthus*, pure yellow with red on the lip, was another attractive Genus found with relatives in Australia. Pink berries of *Vaccinium* sp. grew among the fruiting upright heads of *Sellaginella* ferns. Silver leaved plants indicated that night temperatures can reach freezing level.

Heavy rain prevented us from further explorations in the Tomalia River basin area so we returned to the Ambua Lodge. Glossy swiflets were flying feeding through the misty rain. The final cultural evening was spent learning of the Huli wigman traditions and hearing the double stringed Jaw harp played and demonstrated. Huge Atlas silk moths fluttered at the windows.

On our way to Mt. Hagen we flew over great mountain ridges and upland plantations of pyrethrum and tea which form some of the cash crops of the area. We noticed the triple source ridges of the Rivers Sepik, Wahgi and Fly. Changing planes we continued to the Karawari River through fluffy, white clouds and over sago swamps (*Metroxylon sagu*). We were eager to see the mighty Sepik River and its jungle clad

tributaries. The welcome of dancers and drummers at the Karawari airstrip was involving the whole village from children to elders. We felt remarkably special to experience this rare and wonderful spectacle.

Boarding boats we sped along the Karawari River past primary forest growing over the water. Families fished from slim dugout canoes with father paddling near the reeds. *Calophyllum* trees hosted *Dendrobium lineale* and nests of egrets and herons were visible between the giant fishtail palms that lined the banks. The river flowed into the Sepik and became enormous and in parts overgrown morning glory vines created strange green sculptures.

Villages built on stilts stood on high near the coconut palms, where our floating accommodation, the gracious, white Sepik Spirit awaited. We soon luxuriated in the air-conditioned lounge and dining rooms before enjoying videos of the Birds of Paradise and retiring to cabins carved with murals. It was fascinating next morning, the dawn chorus and river mist made a memorable sunrise and we had cruised upstream towards the Chambri Lakes. Transported in open river boats we visited several villages like Korrigo where the local crafts were displayed and tempted many of the American tourists in our party.

Famous for *D. lasianthera* 'Sepik Blue', originally found on swamp trees, the area was grassy and slightly forested in the hills beyond. Clay was dug from the river banks and made into pots with handles and faces sculpted on the round sides. When painted and fired they made very distinctive containers. The village 'Tamburan', meeting house was raised above the ground to provide shelter and space for the initiated men to make and display their wood carvings.

Further along the river we visited Palumbit village where the water had retreated several miles and caused us to walk through high grass for half an hour to reach our goal. Breadfruit trees had been planted around the village and a huge, wooden, slit drum was used to call the men to the local House 'Tamburan'. Its deep resonant boom went deep into the distance but could not compete with local guitar playing singers we found.

Returning to the mother ship, we were entertained on board that night by nose-flute playing and seedpod percussion accompanying dances of the river men dressed in fine penis gourds, leaves and cuscus fur headbands.

Next morning we were again in another part of the river and visiting Yenchen village where the children asked for birs and had soon a good collection as they walked us into their market place. Buying several attractive types of penis sheaths for hanging dried flower arrangements and crocodile carvings we departed with more than we had room to pack.

The final sunset on the Sepik River was colourful and reflective of all the magic and beauty we had found on our investigations of this land of the unexpected.

P.O. Box 10 Forest Range. S.A. 5139. <http://welcome.to/montemazula>

Flask to Bush

by Les Nesbitt

In 1999 as I was preparing my paper for this year's Melbourne Conference on 10 ways to save native orchids I couldn't remember if I have ever reintroduced species seedlings direct from flask to the wild. I had an excess of *Thelymitra antennifera* flasks that had made good tubers so here was a chance to address that deficiency on my bush block.

I selected a well drained spot around the base of a tree next to a fire track where I could easily find the location again. *Thelymitra antennifera* does not like wet feet. The seedlings came from the flask in clumps of 20 or so tightly intertwined together. The agar was washed and scraped off as best it could be in an ice-cream container of water. About 6 clumps were placed in holes scratched in the soil with a stick and equally spaced around the tree. Some soil was firmed around the tiny tubers and a thin layer of leaf litter placed around the plants. They were watered immediately to settle the soil around the orchids. This all took place in Spring 1999.

In July 200 I found the first signs of success. A few leaves about 20mm long have appeared where two of the clumps were sown. One lot are on the hot northern side of the tree and the others are on the shady southern side.

They should grow bigger by October and make tubers a little deeper in the soil to better withstand the hot dry summer. Will they thrive and when can flowers be expected? We shall have to wait and see.

SARCOCHILUS FALCATUS by Brendan Killen

When I moved to Toowoomba (Queensland) from Adelaide, the first flowering native orchid I saw in the bush was *Sarcochilus falcatus*. To this day, I can still remember the exhilaration I felt at the sight of these beautiful little plants and their sparkling white blooms. The air was full of their sweet fragrance. I was introduced to these plants by a lovely couple who became great orchid friends. After driving to their home located in a cleared section of rain forest, they walked me around their back yard and pointed out the resident *Sarc. falcatus* plants. They were everywhere in their back yard - "how good is this", I thought!! They then took me to a very special area of adjacent forest to view an even more spectacular display of these little beauties. 'Wow!' was my first reaction. I took in every raceme with my binoculars - when my drooling tongue wasn't in the way.

From this moment, I became fascinated by this little plant and began a continuous search for colonies throughout Queensland and Northern NSW to learn more about it. The most northerly plants that I spotted were up high in the rainforest around Eungella - just west of Mackay. They were up in the trees at around 900m above sea level - it gets very cold there at any time of the year. The flowers were around 1cm to 1.5cm across and even though they were very filled-in they were also very cupped.

The most southerly plants I saw were around the Nimbin area - regarded as Australia's 'dope' capital, in the hinterland behind Byron Bay. I have a sample of a plant from much further south in the Merimbula area but was never fortunate enough to see these in the bush.

In all, I have probably found *Sarc. falcatus* in at least 20 locations. Each location seems to have small variances in flower shape, length of raceme, number of flowers, colouration and markings. But, there are many things they do share in common among which are: vigour to sustain the most extremes of temperature and light intensity; a habitat that is exposed to chilling westerly winds in winter; a location that allows funnelling of cooling, moist air in summer; a host that has rough bark to allow moss to be the plant's constant companion; ticks and tree snakes in abundance to add to the thrill; hosts that have an association with stinging trees to trap you when you least expect it.

My favourite plants come from the first location I spoke of earlier - near Toowoomba. I have seen flowers that are the diameter of the lid of a spray can, filled in and dead flat! When you see them this big, the flower count is down around 8 - 10 flowers. But, the more regular size flowers in this area are around 2cm wide and have up to 15 flowers a raceme. Mature plants typically have around 5 racemes at a time although I have seen 8 racemes on one plant. The flowers are crystalline white with modest yellow markings on the lips.

In one area around 100km north of Toowoomba the plants have smaller leaves and flowers but the labellum markings are a stunning orange with an occasional purple spot on the frontal 'chin' of the labellum. In an area around 50km south of Toowoomba the plants are also much smaller and the flowers are a cream colour and they typically grow near the base of the tree trunks rather than well up in the foliage - they also have proportionately smaller labellums that most others I have seen.

Nearer Brisbane, up at Mount Glorious, I have seen trees with *Sarc. falcatus* spread all along the trunks from within the shade of a dense canopy of leaves and extending to the outer limbs where they are exposed to full sun and wind - all on the same tree. These plants demonstrate just how versatile *Sarc. falcatus* really is. They love to be kept on a mount in cultivation. They last for a while in spagnum moss but then seem to lose their vigour - I'm convinced they need constant air circulation around their roots. In the bush their roots extend over a metre from the plant but in cultivation they never get the chance to do this as we rarely ever give them this much space. In cultivation they prefer to get the morning light and afternoon shade - even though they can be seen thriving in all conditions in the bush. They also like a general, weak fertiliser in autumn.

Now that I have moved back to Adelaide I will be able to test just how they cope with our hot, dry summers - our winters are perfect for them! I'll write about my experiences on this after my first summer and hopefully I can share my 'success' with you.

(Brendan was a Member of NOSSA prior to his moving to Queensland five years ago. It is great to have him back).

CONSERVATION FIELD TRIP TO MOUNT BRYAN by Thelma Bridle

We had to scrape ice from the car windscreen in Burra on Sunday morning before proceeding to Hallett for a 9am meeting. The sun was shining, the hills green and the flocks of sheep supplemented with many lambs. After meeting with 6 other NOSSA members we travelled on to Tooralie Homestead and the site near the base of Mount Bryan, where the rare *Pterostylis despectans* grows. Under the direction of Doug Bickerton, we marked all the rosettes in the area surveyed last year. Some of last year's stakes were removed, where they no longer had an associated rosette, and new stakes were added for young rosettes. The resultant total was almost identical to that for 1999 - 135 rosettes, with 139 rosettes for 2000. Paddocks in this area have red-brown soil, lichen-covered rocks and are sheep-grazed, making it almost impossible to find short, brownly-coloured *Pterostylis* sp. flowers with shrivelled brown rosettes in late October unless the rosettes have been previously marked, when green and fresh. A number of other groups were found by extending the survey site and some were found along the creekbed.

After lunch and some birdwatching, we moved to the nearby Peppermint Gully, an area well-known for its birdlife. Here, along both sides of the road were many large groups of *Pterostylis* sp. rosettes, probably mainly *P. aff. biseta* and *P. pusilla*. These were staked for subsequent identification of the flowers and to see if any *P. despectans* grow at this site. A few *Caladenia* sp. leaves with buds just forming were also located and marked. A small group of red-capped robins caused some interest. They were in full breeding plumage, even the female had some red marking around the beak and on the head. Two males, quite happy in each others company had stunning red heads and breasts.

Driving back towards Burra, Bob showed us the native grassland at Mount Cone, recently given conservation status. This area of tussock irongrass was full of low-growing native plants. Trees are not part of this landscape, so nothing is much above 20cm high, making careful searching necessary to find different plant species. *Prasophyllum* sp. leaves were found (apparently a short, green-flowered form of *P. occidentale* is common here). *Pterostylis* aff. *cycnocephala* was numerous and just beginning to flower. A colourful form of *Diuris* is found in the creekbeds, but we failed to find leaves, being of course, too early for flowers. Since removal of the sheep Bob has noticed an increase in the number of kangaroos and certainly there were plenty to be seen across the rolling plains.

NOSSA FIELD TRIP TO MACCLESFIELD by Thelma Bridle

NOSSA visited a 30 acre bush block in Macclesfield on July 30 th. The owners have spent considerable time and effort removing weeds, particularly gorse and broom from this hillside site.

As the weeds became fewer towards the top of the hill, orchid numbers increased in the moss-covered ground. *Corybas dilatatus* were numerous although flowers of both these and *C. incurvus* were rather desiccated. *Acianthus pusillus* were in huge numbers, with flowers nearly over. Flowers of *Pterostylis nutans* were common. *A. caudatus* flowers were already showing their long sepals. The *Glossodia major* population was extensive, many with flower buds forming.

Amongst a clump of small eucalypts on top of the hill we saw the colony of green *Corybas dilatatus* discovered only last year. This group of about 65 flowers had pale lime-green dorsal sepals and white, translucent labellums - a most spectacular sight in the winter sunshine and avidly photographed.

Leptoceras menziesii were in abundance in the area and many examples of *Pterostylis smaragdina* growing together with *P. sanguinea*. These species never hybridise. Those members who heard Mark Clements speak last year will remember he told us their DNA (genetic material) is totally different, although they obviously enjoy the same environment.

Genoplesium rufum and *Eriochilus cucullatus* seedpods were found, and a number of *Caladenia* sp. and *Thelymitra* sp. leaves with seedpods, which helped in species identification. On returning down the hill a colony of enormous *Pyrorchis nigricans* leaves were seen, up to 12 x 5cm. Only one bud was found, associated with a smaller leaf. We have consistently found large-leaved plants do not produce flowers.

The owners, Mark and Sue, very kindly offered us tea and coffee on our return, after a very enjoyable and rewarding morning. Thank you very much for your hospitality.

ORCHID SPECIES RECORDED 23/7/00

Acianthus caudatus (b)	Cyrtostylis reniformis (b)	P. pedunculata (b)
A. pusillus (b)	Glossodia major (b)	P. sanguinea (fl)
Caladenia leptochila (1)	Eriochilus cucullatus (s)	P. smaragdina (fl)
C. tentaculata(1)	Genoplesium rufum (s)	Pyrorchis nigricans (b)
Corybas dilatatus (fl)	Leptoceras menziesii (1)	Thelymitra nuda (l,s)
C. dilatatus - green form (fl)	Microtis arenaria (1)	T. pauciflora (l,s)
C. incurvus (fl)	Pterostylis nutans (fl)	

WINTER-FLOWERING ORCHIDS OF THE MALLEE by Thelma Bridle

On the roadside just outside Yumali, on a foggy Sunday morning, we found a large number of orchids. In particular, we were looking for *Pterostylis dolicochila*, and these were in abundance, ranging in colour from green markings through red-brown to very dark brown with narrow to wide galeas. Rosette numbers far exceeded flowers, as expected with the cauline species. A number of other species of orchid were found and of special note were the variety of *Caladenia* species, only leaves at this stage, although one group did have buds forming. I think *Caladenia cardiochila* and *C. stricta* were amongst at least 5 different species found. *Acianthus pusillus* were in flower and the underside of the leaves were almost totally green, with only a narrow red margin. Cathy Houston remarked that such leaves were common in the south-east variety of the species. Two clumps of *Thelymitra antennifera* both had flower buds. There were also a number of flowering shrubs and some interesting fungi in this narrow strip of bush between the road and the railway.

Our next visit was to Tailem Bend on what was now a superb winters day of warm sunshine. We lunched at the rubbish dump site, obviously the hub of social activity on a Sunday in Tailem Bend. We had come to check whether there were orchids at this site, in order to add ammunition to the local protest against the whole area being turned into a rubbish dump. The site is already well known for its 53 species of native mallee plants, and it is hoped to maintain the natural mallee status. We did find orchids here, only 8 species, but certainly worth protecting to maintain genetic diversity. A return visit in spring will confirm the species seen in leaf.

The final visit was to Monarto Conservation Park, always worth a visit, if only for the diversity of flowering shrubs. *Pterostylis dolicochila* here was all a narrower-flowered form and with a reduced colour variation between flowers. Leaves of *Caladenia filamentosa*, *C. cardiochila* and *C. stricta* were identified. *Pterostylis sanguinea* were particularly plentiful and the number of orchid leaves would suggest a good spring season to come.

As we drove home along the freeway we passed the Olympic torch atop a solar-powered car making its way to Murray Bridge for evening celebrations.

Orchid list Yumali (Y), Tailem Bend (T), Monarto Conservation Park (M).
flower (fl), bud (b), leaf (l), seedpod (s)

Acianthus pusillus Y,M fl	Pterostylis dolicochila Y,T,M fl
Caladenia cardiochila Y,T,M l	P. mutica/cycnocephala T b
C. filamentosa T,M l	P. nana Y,T,M fl
C. stricta Y,T,M l	P. rufa ? T l
C. sp. Y,T l,b	. sanguinea Y,M fl
Cyrtostylis robusta Y b	Pyrorchis nigricans T l
Genoplesium nigricans M s	Thelymitra antennifera Y b
G. rufum Y,M s	T. sp. Y l

BETWEEN A ROCK AND A HARD PLACE:
AN OASIS OF ORCHIDS NORTH-EAST OF BURRA

by Bob Bates

Anyone travelling through the dry saltbush plains on the flats north-east of the Burra-Morgan road would know that orchids could no longer exist in the sheep and rabbit chewed, rain shadow of the Northern Lofties. Similarly for anyone travelling the Barrier Highway north of Burra those bare hills Surely the sheep and the plough have destroyed every orchid.

Not quite! A few years back I was hiking in the dusty Mongalata hills east of Mount Bryan; the soils were powdery under the patches of twisted mallee and between the mallee bare paddocks grew only scattered Horehound. As I came over a rise I could see a rocky area near a small creek. A few native pines grew nearby and some stunted sheoaks stood like sentinels on the summit of the rocks. It looked a good spot for a lunch break so I removed my back-pack and strolled past the pines. The ground seemed to be littered with Salvation Jane rosettes.... I looked closer.... Surprise!.. the green leaves flat on the ground were 'rufa group' *Pterostylis*. On rock ledges nearby *Pterostylis mutica* and *P. robusta* were in full flower (it was late Winter). On the south side of small bushes growing where water ran off the rocks were the delicate looking *Caladenia toxochila* and *C. filamentosa* var. *tentaculata* mixed with twining sundews. These were mostly in bud. An examination of the numerous 'rufa group' rosettes indicated at least three species were present, none in flower. The sheer numbers of these surprised me. Continuing on down the creek and leaves of *Prasophyllum* and a solitary *Thelymitra* were found. Some day I shall return to this spot in Springtime.

Anyone wishing to visit may find this oasis by turning east from Mt Bryan township. Take the White Hill road up past the Mt Cone Grassland reserve (now Mocota CP) which also has a few orchids. About 7-8 km east of the Park the dips down into a deep (dry) creekline. Continue on the road (which is part of the Mawson Trail) 2km further to the top of the range. A gate on the left has a worn 'keep out' sign attached. Go through the gate, under a relict patch of peppermint gums, past the sheep troughs and turn east through a gap in the range via a shallow (empty) dam and you can see to the north a hidden valley with the ruins of an old settlement. With a good 4wd you can drive down or to appreciate it more walk the 1km across old paddocks. Follow the much eroded creekline (this country was never meant to be farmed) past the ruins and you will spot the rocky hillock nearby. It looks unlikely orchid country but you may be surprised.

OUR GREATEST ORCHID LOSSES

by Bob and Kerry Bates

Where have we lost the most native orchids? Is it from the swamps of the Southern Lofties? Perhaps from our woodlands? Or is it from the vast tracts of native grassland of the Mid-north? I would suggest it is the latter habitat - really a whole series of different orchid habitats. There are almost no orchids to be found in the hundreds of square km of Mid-north grasslands today, yet according to early reports orchids were abundant.

Records go back to 1845 - Edward John Eyre, explorer extraordinary writes of his 1845 visit to the area north of Clare: " Immense tracts of land through portions of which the Wakefield flows, rich in soil and abundant in pasture, have scarcely a tree on them. These extensive and open downs are, nonetheless, well grassed and covered with a profusion of orchidaceous plants."

Kangaroo grass slopes, frost hollows, rock outcrops, black-soil bogs, clay flats, sandy swales, freshwater and salt lake margins, waterholes, reed beds, fields of wallaby grasses, herblands, shrub patches, creeklines, iron grass covered ridges, cold southern slopes, dry north facing slopes, all with different orchids; -a profusion now lost.

Sixty years later a Dr Taylor of Georgetown writing to R S Rogers reports. "I have endeavoured to capture a few orchids for you but fear that sheep and the plough have fairly done for them. There once was an abundance of these little beauties on the grassy hillocks around the town... .why only a few years back there was a veritable garden of your spider orchids, donkeys and sun orchids in all colours..."

Dr Taylor apparently sent Rogers *Caladenia gladiolata*, *Caladenia argocalla*, *Diuris behrii* and some *Prasophyllum*. I fear that we may have lost as many as twenty species of orchid from the area without their ever having been collected.