



Journal
of the
Native Orchid Society
of
South Australia Inc



Acrochorda cordata

NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA
POST OFFICE BOX 565 UNLEY SOUTH AUSTRALIA 5061

www.nossa.org.au.

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

PRESIDENT

Bob Bates:
Telephone 8251 5251

SECRETARY

Cathy Houston
telephone 8356 7356

VICE PRESIDENT

Bodo Jensen

COMMITTEE

Malcolm Guy
John Bartram

Brendan Killen
Bill Dear

EDITOR

David Hirst
14 Beaverdale Avenue
Windsor Gardens SA 5087
Telephone 8261 7998
Email hirst.david@saugov.sa.gov.au

TREASURER

Peter McCauley
ASSISTANT TREASURER
Bill Dear
telephone 8296 2111
mobile 0414 633941

LIFE MEMBERS

Mr R. Hargreaves†
Mr H. Goldsack†
Mr R. Robjohns†
Mr J. Simmons†
Mr. L. Nesbitt

Mr D. Wells
Mr G. Carne
Mr R Bates
Mr R Shooter
Mr W Dear

Conservation Officer: Thelma Bridle

Field Trips Coordinator: Susan Secomb

Trading Table: Judy Penney

Tuber bank Coordinator:

New Members Coordinator:

Registrar of Judges: Les Nesbitt

phone 0409 091 030

Malcolm Guy telephone 8276 7350

Malcolm Guy telephone 8276 7350

PATRON Mr L. Nesbitt

The Native Orchid Society of South Australia, while taking all due care, take no responsibility for loss or damage to any plants whether at shows, meetings or exhibits.

Views or opinions expressed by authors of articles within this Journal do not necessarily reflect the views or opinions of the management committee. We condone the reprint of any articles if acknowledgment is given

Journal Cost \$2. per issue. Family or Single Membership with subscription \$20.00*

*Postal Mail full year \$20.00. Email full year \$15.00.

Pro-rata rates for third quarter \$10.00 and last quarter \$5.00

Students \$10.00 per year. Juniors \$5.00

Front cover from an original drawing by Jane Hutchinson. Used with her kind permission.



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

FEBRUARY 2007 VOL. 31 NO 1

CONTENTS THIS JOURNAL

Title	Author	Page
Diary Dates		1
For Your Information – NOSSA News		2
2006: the Orchid season that never was!	R. Bates	3
Orchids of the Grampians following bushfire: Part 1	Thelma Bridle	4
Victorian Threatened Orchid Recovery Workshop Dec 2006	Joe Quarmby	6
Raywood Nursery, Deep Creek and Talisker Conservation Park Field Trip Report	Robert & Rosalie Lawrence	7
The Hyacinth Orchid	Louise Lawrence	8
Can you help the bee find its way to the orchid's pollen?	Joseph & Helen Lawrence	9
From the Editor		9

NEXT MEETING 27 FEBRUARY 2007

Tuesday, 27 February, 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.

Dr Mike Duncan is the speaker with “!Vamos! – Australia’s Newest Travel Show Extravaganza (Crete, Ecuador, Peru)

Done in the style of TV’s Getaway or the Great Outdoors, the program is based on a highly enjoyable trip to Crete, Ecuador & Peru in 2006. If you wish to see;

3000 year old Minoan Palace ruins,

8 species of monkeys (and other animals),

the high Andes,

Blue & Gold & Scarlet Macaws (and other birds),

the fabled Incan city of Machu Picchu,

what a Cock ‘o the Rock is,

the Amazon Basin

and HEAPS OF ORCHIDS’

then come along for a look

DIARY DATES

Tuesday, 27 February 2007

Next meeting

NEXT COMMITTEE MEETING

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

FOR YOUR INFORMATION - NOSSA NEWS

The April meeting may be preceded with a New Members meeting so watch the March Journal for details.

Subscription Renewals 2007

From 2007 all subscription renewals commence from 1st January.

At a Special General Meeting held in November before the regular monthly meeting and after a presentation from the Treasurer the following subscriptions were approved for 2007.

Those receiving a journal by Email \$15 per year

Those receiving a journal by POST \$20 per year

Membership for Students will remain at \$10 per year and Juniors \$5 per year

For members joining at any time during the year, membership will now be based on a pro rata system. Email members will pay \$15 for the first and second quarters, \$10 for the third quarter and \$5 for the last quarter. Likewise members receiving a POSTED copy will pay \$5 per quarter.

RECEIPTS PROVIDED ON REQUEST ONLY

RENEWAL FORM INSIDE BACK COVER OF DECEMBER JOURNAL



Malaysian Orchid Tour 2007

Easy Orchids, in conjunction with Casino Travel Shoppe Lic. 2TA5182 is hosting a special orchid based tour to East and West Malaysia from May 22 - June 3, 2007. Limited places available!!

12 Days/11 Nights \$3695.00 p.p. Twin Share*

MALAYSIAN ORCHID TOUR 2007

CONTACT:

Easy Orchids (Murray Shergold)
3 Sussex Street Woodburn NSW 2472
Phone: 0266 822635
Fax: 0266822605
Email: murray@easyorchids.com

Casino Travel Shoppe (John Dougall)
109 Barker Street, Casino NSW 2470
Phone: 0266 626255
Fax: 0266 626070
Email: casino.travel@bigpond.com

2006: the Orchid season that never was!

R. Bates

The title is an exaggeration of course but 2006 was probably the worst season for wild orchids in South Australia since records were first kept. Most areas had their driest growing season on record and there had never been as many 'black frosts' in living memory. Orchids were still collapsing from severe frosts in late October.

Fortunately there was a good start to the season with opening rains in April-May but autumn was followed by the driest winter on record.

Then in spring there were many hot windy days in October which was also the driest on record. Areas which had never had drought before actually saw the 2006 crops fail. In most areas at least some species did not flower at all, in fact I never saw a single *Prasophyllum* species in flower anywhere.

Several NOSSA field trips were cancelled due to drought conditions.

But it was not all doom and gloom and some 'new' and undescribed species were located for the first time; orchids not seen in SA for 20 years did flower and there were several new species named in the literature on the basis of previous collections.

Member June Niejalke found *Simpliglottis cornuta* in flower near Glencoe and other NOSSA members who went to see it found more populations, even invading pine plantation at Blanche Forest. The last time the species was seen in SA was in the 1970's near Nangwarry.

Newly discovered species include *Oligochaetochilus* sp. 'Dares Hill', a real surprise since in that area it was too dry for crops. A new *Thelymitra* species was found at Thomas Gully near Mount Bold was actually locally common. (It has been given the tag name *Thelymitra* sp. "*Thomas Gully*." In fact sun orchids did seem to fare a little better than any other orchids, probably because their flowers remained closed except for one or two days. Ken and Barbara Bayley took the first photographs two probably new *Thelymitra* sp. in Topperwein NFR; an area becoming very popular for orchids!

Some hybrids recorded for the first time included *T. juncifolia* x *T. albiflora* and *T. albiflora* x *T. brevifolia*.

The Houstons found an undescribed leek orchid at Piccaninnie Ponds in Nov 2005, (see OSA electronic).

June Niejalke photographed *Arachnorchis calcicola* x *A. clavigera* in Dry Creek CP and some newly named SA spider orchids for 2006 included *Arachnorchis* x *ensigera*, *A. flindersica*, *A. leptochila* ssp *dentata* and *A. saxatilis*. All of these are best known from the Alligator Gorge area in the southern Flinders.

Two subspecies of *Pterostylis cucullata* have been recognised for many years and our local one was named in 2006. The short sand loving *P. cucullata* ssp *cucullata* was once common at Fairview Park and McClaren Vale near Adelaide as well as Robe sandhills but appears to be extinct in SA now; while the tall woodland 'ssp *silvicola*' can still be found in messmate woodland at Lobethal, Belair and Sturt Gorge. Another new greenhood is *Pterostylis lustra* from alkaline swamps in the SE.

Areas of SA to do rather better included a small area with heavy rain at Telowie Gorge in late July which produced good flowering in late August and rain in the Meadows area in September which gave some good results in October.

Many orchids flowered earlier than ever before including sun orchids in mid winter in the western Gawler Ranges, the early blooming was due to extra sunshine and drying soils and not to higher temperatures as winter minimums were lower than usual.

Despite the predictions for semi permanent drought due to climate change I am sincerely hoping we never see a year as bad as 2006 again. We do expect many of the ninety or so unnamed SA orchids to be named in 2007. In fact the loan of *Hymenochilus* recently returned to the State Herbarium has many new names but we will have to wait for them to become official.

ORCHIDS OF THE GRAMPIANS FOLLOWING BUSHFIRE

PART 1

by **Thelma Bridle**

In January 2006 lightning started a bushfire in the Serra Range of the Grampians, SW Victoria. Extreme weather conditions caused the fire to spread rapidly through the Serra Range, then move east through the Mount William Range before a wind change turned the flames north towards Halls Gap and popular tourist destinations.

After 4 days a cool change slowed the fire and it was finally controlled. Approximately 130,000 hectares was burnt including 84,000 hectares of public land of which 47% is Grampians National Park. The perimeter of the burn was approximately 360km long.

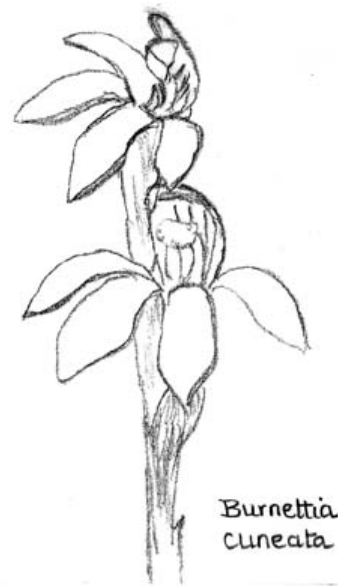
Since this catastrophic event much work has been undertaken to repair roads and signage and clear fallen trees. Eight months after the fire DSE Victoria together with ANOS Victoria organized a week long orchid conservation trip to the area (25/9- 1/10). A number of tourist destinations were closed due to infrastructure still requiring repair/reconstruction. Several minor unmade roads were still closed as a number of bridges had been burnt out. As part of a DSE party we were able to access some of these roads, although routes were made longer to avoid particular hazards. One of the first things I noticed were the hills with crew-cuts of burnt skeletonised trees, stark against the skyline.

At first glance the ground, covered with a layer of grey ash, appeared devoid of plants. Blackened trunks of eucalypts were sprouting juvenile leaves from epicormic buds on both trunks and branches. On some trees the blackened bark had split to reveal red-brown wood beneath, creating a vibrant colour contrast in the sunshine. *Xanthorrea australis* blackened trunks had re-sprouted leaves and were standing majestically in the bare landscape with multiple creamy flower spikes attracting bees with their perfume. Blackened banksias with bare branches appearing like polished ebony had seed cones burst open by the heat of the flames so a new generation could commence germination. *Hakea* sp shrubs had split their woody follicles, each dropping a seed and revealing the orange coloured interior of the split fruit.

On closer inspection the ash layer was not so bare and I was surprised by the variety of orchids in badly burnt areas of hot fire. Orchids were among the first plants re-colonising the ground, but due to their relatively small size were not immediately obvious. Searching revealed a wide range of species. Some were of atypical short stature. Whether this was a result of fire or the general drought conditions which currently prevail in southern Australia was not ascertained, but the bright colouration of some species eg *Diuris orientis* is known to occur in the season following a summer fire.

Some orchid species find summer fires detrimental and these tend to be autumn/winter flowering species and the summer flowering swamp species. One swamp species only flowers in the first, and sometimes second, spring following a summer burn. *Burnettia cuneata* is a hemiparasite, the tubercles developing and surviving, often for many years, in the presence of a fungus associated with *Melaleuca squarrosa* (scented paperbark). Leaves of the lizard orchid are reduced to fleshy, sheathing scales. The dark red/brown fleshy stems grow to 13cm and support up to 7 small white flowers which last for only 1-2 days.

Red/brown externally, the flowers which spread widely in the sunshine, have red veining and stripes especially on the underside of the labellum and the strongly hooded dorsal sepal. Nothing is known about their pollination, but the orchid reproduces only from seed, after which the tuber dies. After searching the edges of a couple of likely swamp sites, we eventually found a swamp containing the species and counted 450 flowering plants, stretching over a distance of about 300m. This was a very exciting find as the species is rarely seen and was a first sighting for many in the group. Each day about 30 people attended to look for orchids, but not always the same people, so when we returned to the swamp the following day, we were surprised to find many plants had collapsed. It turned out this was a result of overnight frost. Later in the week, plants were recorded in grids for monitoring to learn more about this rare species.



Burnettia
cuneata

Arachnorchis (Caladenia) grampianana has recently been split from *A. oenochila*, which is a species stimulated to flower following bushfire. The known range of this species in the Grampians was extended during searching and some reasonably large populations were recorded. Other plants were in loose groups and a number of hybrids with *A. reticulata* were observed. Many of the finished flowers were found to have large seedpods developing, so this would be an ideal season for DSE to make a representative seed collection. In subsequent years numbers of flowering plants will diminish as understorey shrubs and herbs reduce their access to light and air. Again, monitoring in grids will extend understanding of the species.

Pyrochis nigricans, as the name suggests, is stimulated by fire to produce spikes of dark red and cream flowers. In places, the always frequently observed, ground-hugging fleshy leaves each had a spike of 2-5 flowers, making accessing the ideal plant for a photograph a hazardous, if not impossible, task. Small groups of *Leptoceros menziesii* were flowering and several spikes of *Prasophyllum elatum* were in bud, the flowering of both species as a result of the fire stimulation.

Some orchid species were probably taking advantage of additional light and air movement to flower and set seed. Over the week I amassed a total of 74 species, and I didn't record all species found by others, so the spring following a bushfire is very rewarding for those wishing to observe orchids in their natural habitat. Thanks for everyone having such an interesting and rewarding week must go to Andrew Pritchard (DSE) for his time-consuming organisation of places to visit and the best access routes and to Dick Thomson (ANOS, Vic) for organising accommodation and liaising with DSE.

A second article will cover another visit to the Grampians made in early November 2006,

Victorian Threatened Orchid Recovery Workshop Dec 2006 Joe Quarmby

From the 5th to the 7th December 2006 a group of South Australians including Peter McCauley, Renate Faast, Lachlan Farrington, Cath Dickson, and myself attended the Victorian Threatened Orchid Recovery Workshop at Plenty Gorge Parkland, near Melbourne.

The main purpose of the workshop, organised by the Victorian Department of Sustainability and Environment, was to discuss recent translocations involving threatened orchids in Victoria. Many topics relating to translocation were discussed ranging from the impact of climate change, to retrieval and growing techniques, to planning considerations. There were also updates on regional orchid conservation and research projects.

Ian Mansergh started the presentations with a talk about the potential impacts of climate change on the biota of Victoria, and discussed landscape planning considerations to assist flora and fauna to adapt to climate change. This was followed by a presentation by Ian Bell on how to utilise the Weather Bureau in the planning of translocations.

Anne Gaskett gave a very interesting presentation about her research into the pollination ecology of *Cryptostylis* species, including the use of mimicry (scent, colour, shape, texture signals) to attract pollinators, and pollinator specificity. Colin Bower also gave an informative presentation about sexual deception in *Caladenia* species. He discussed the results of his recent pollinator baiting trials for threatened *Caladenia* species in South-west Victoria, and the implications for conservation (eg ensuring specific pollinators are present at re-introduction sites).

Russel Mawson gave a presentation about a translocation of *Pterostylis cucullata*, where plants were retrieved from a parent population and translocated to a new secure location. He discussed all of the stages involved in the translocation, and the methods used. Geoff Neville then gave a presentation about translocations of *Pterostylis maxima* and *Diuris behrii*. In both cases plants were rescued from sites subject to development and translocated to new secure sites. He discussed all of the planning involved in the translocations, including the selection of appropriate recipient sites, threat abatement, and monitoring.

Garry French gave a presentation about translocations of *Caladenia amoena* and *Pterostylis smaragdina* in Plenty Gorge Parkland, where plants were retrieved from parent populations and translocated to new secure locations. He discussed all of the planning considerations including the preparation Translocation Plans, and the successes and failures of the translocations. Kate Vleck gave a presentation about the translocation of *Caladenia hastata* at Portland. This is a long-term project that aims to 'spread the risk' by increasing the number of sub-populations of *C. hastata*. She discussed the need to select the translocation site using methods such as seed baiting to determine the presence of mycorrhizal fungi and pollinator baiting.

Finally Renate Faast also gave presentations on her research into the pollination of *Caladenia rigida* and *C. tentaculata*, and Lachlan Farrington talked about his research into the genetics of *Caladenia* species in South Australia. Both are part of a research project by Adelaide University into the effect of habitat fragmentation on orchid pollination and population genetics.

There were also presentations about many of the regional orchid conservation projects being implemented across Victoria and South Australia, discussing all of the other aspects of orchid conservation. All in all it was a very interesting workshop, one that has provided me with an insight into the complexity of orchid conservation, translocation in particular.

Raywood Nursery, Deep Creek and Talisker Conservation Park Field Trip Report

Robert & Rosalie Lawrence

The final field trip of the year was a good alternative to the post Christmas sales. A group of ten of us met at Delaware General Store hoping to see both *D. roseum* and *D. pardalinum*. These hyacinth orchids certainly look like tall pink to white hyacinth flowers. They have no leaves and do not photosynthesise, but depend entirely on saprophytic fungi, which in turn are thought to feed primarily on the roots of stringy bark eucalypt trees. Flowers of the common hyacinth orchid, *D. roseum*, vary from pink to white and are distinguished by pink stripes along the length of the labellum. Flowers of the spotted hyacinth orchid, *D. pardalinum*, are always white with pink spots, being distinguished by pink spots on the labellum. The latter are scheduled as being vulnerable in South Australia, so the group was keen to find them in flower.

After a quick coffee at Delamere we set off to visit three sites where these orchids had been seen in the past. First stop was at Raywood Nursery in the Deep Creek Conservation Park. We were shown a disused clay tennis court where *D. pardalinum* had emerged unhindered by the hard rolled surface. Stems remaining from the last season were noticeably larger than those we saw growing and we attributed this relative lack of rigour to the drought. Both pink and white varieties of *D. roseum* were found in the stringy bark forest adjacent to the nursery. Some buds were even seen in the nursery. Although the total number of orchids was about 15, it was encouraging to see that they had not aborted due to drought conditions.

Despite the drought, the area of the park down the slope from the nursery still had a cool, green, lush appearance. We walked as far as a small creek. This stream had once had a permanent water flow, but that the flow has declined over the years since the establishing of a pine plantation farther upstream. After retracing our steps back up the path, some of us patronised the nursery looking for garden specimens. On the walk into the nursery we observed capsules of both *Microtis* and *Thelymitra*. We stayed for lunch at a pleasant picnic area which was well frequented by superb fairy-wrens, scrub wrens and even a scarlet robin. After lunch we went on to the second site at the top of the hill within Talisker Conservation Park. *Dipodium* orchids are known to have occurred there in the past. However no signs were observed in this visit, or in January 2006 for that matter. Only capsules of *Thelymitra* sp. were seen.

We had marginally more success at the third site at the entrance to Talisker Conservation Park. Whereas 40 to 50 orchids had been observed in January 2006 we were disappointed to find only about six plants in flower.

While observing the orchids we were interested in seeing if there was evidence for transitional forms between the two species of *Dipodium*. Examples of elongated spots along the labellum of *D. pardalinum* were found but these were in panicles with other flowers which had normal spots and so it is doubtful that they were transitional forms.

One heartening aspect of the trip was to see that the local council had erected road signs prohibiting the removal of dead wood for firewood:

“To protect/conservate habitat the
COLLECTION OF FIREWOOD
in the District of Yankalilla is
PROHIBITED
Penalty \$185”

Fallen timber is an essential aspect of the life cycle of *Dipodium* orchids, so it is vital to prevent the collection of firewood. However, the residents adjacent to the Talisker Conservation Park had tidied any fallen timber and some had planted *Agapanthus* hybrids along fence lines and driveways. In the view of such activities, the future of *Dipodium* in the remnant forest surrounding these residences appears doomed within a decade or two.

The Hyacinth Orchid
Louise Lawrence

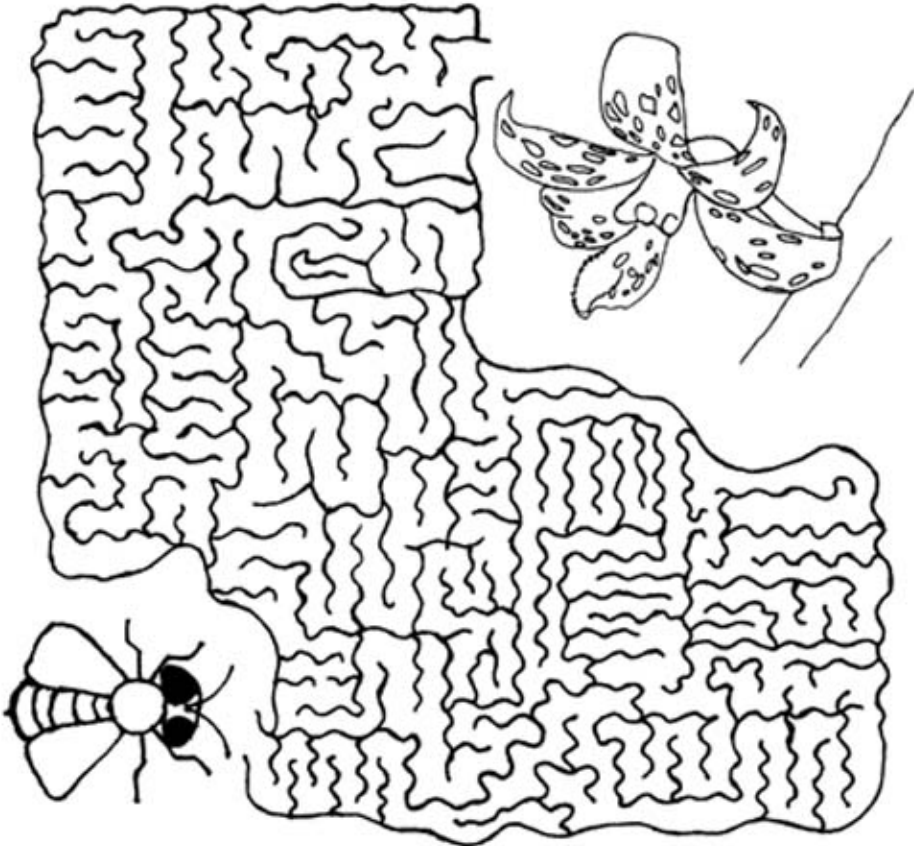
The Hyacinth Orchid (*Dipodium*) named because it reminded people of the European hyacinth, has 10 – 40 flowers on a 40 – 90 cm tall single stem (spike). The two types of Hyacinth Orchids growing in the Southern Mt Lofty Range and on the Fleurieu Peninsula are the Spotted Hyacinth Orchid (*Dipodium pardalinum*) and the Common or Rosy Hyacinth Orchid (*Dipodium Roseum*). The Spotted Hyacinth Orchid has white or pale pink flowers dotted with pink spots hence its name whilst the Rosy Hyacinth Orchid is pink with even darker pink spots but on its labellum, a tongue like petal, it has stripes instead of spots.

Since the Hyacinth orchid has no leaves its lives and relies on fungi, which needs the fallen bark and branches of stringy-bark trees to grow. The orchids also need native bee pollinators to produce new orchids – a task that the introduced honey bees cannot do.

Easily recognised by their height and pink colouring they are seen flowering in summer, and in some places can be found growing along the roadsides. They are very pretty but do not pick them because it is illegal. Leave them alone; enjoy them where you see them as they cannot be cultivated in the gardens.



Can you help the bee find its way to the orchid's pollen?



Joseph & Helen Lawrence



NOTES FROM THE EDITOR

To Authors

When submitting an article for publishing in the journal in 'MSWord' and photos or illustrations are imbedded into the file to demonstrate preferred layout, **please also provide the photos or illustrations separately in electronic form.**

Photos should not be excessively downsized.

Sending the file as a PDF means the file could be imported directly into the Journal once it is near completion but I am unable to add page numbers nor shift part of the page to an adjoining part-filled page. I would prefer to receive the file in MSWord but will accept a PDF if that is not possible.

Requests for Email Journals

In addition to notifying the Treasurer please also email the Editor with your email address. This minimises any errors in adding your address to my list.

Ed.



See "Field Trip Report" p.7
I said "Everyone look!" So everyone looked for orchids
Photograph: Rosalie Lawrence



**ORCHIDS AT ALDINGA
SCRUB**

24 SEPTEMBER 2005

1 *Urochilus sanguineus*

2 *Calochilus* sp.

3 *Caladenia latifolia*

4, 5 *Prasophyllum elatum*

6, 7 *Pyrorchis nigrifrons*

8 *Thelymitra rubra*

