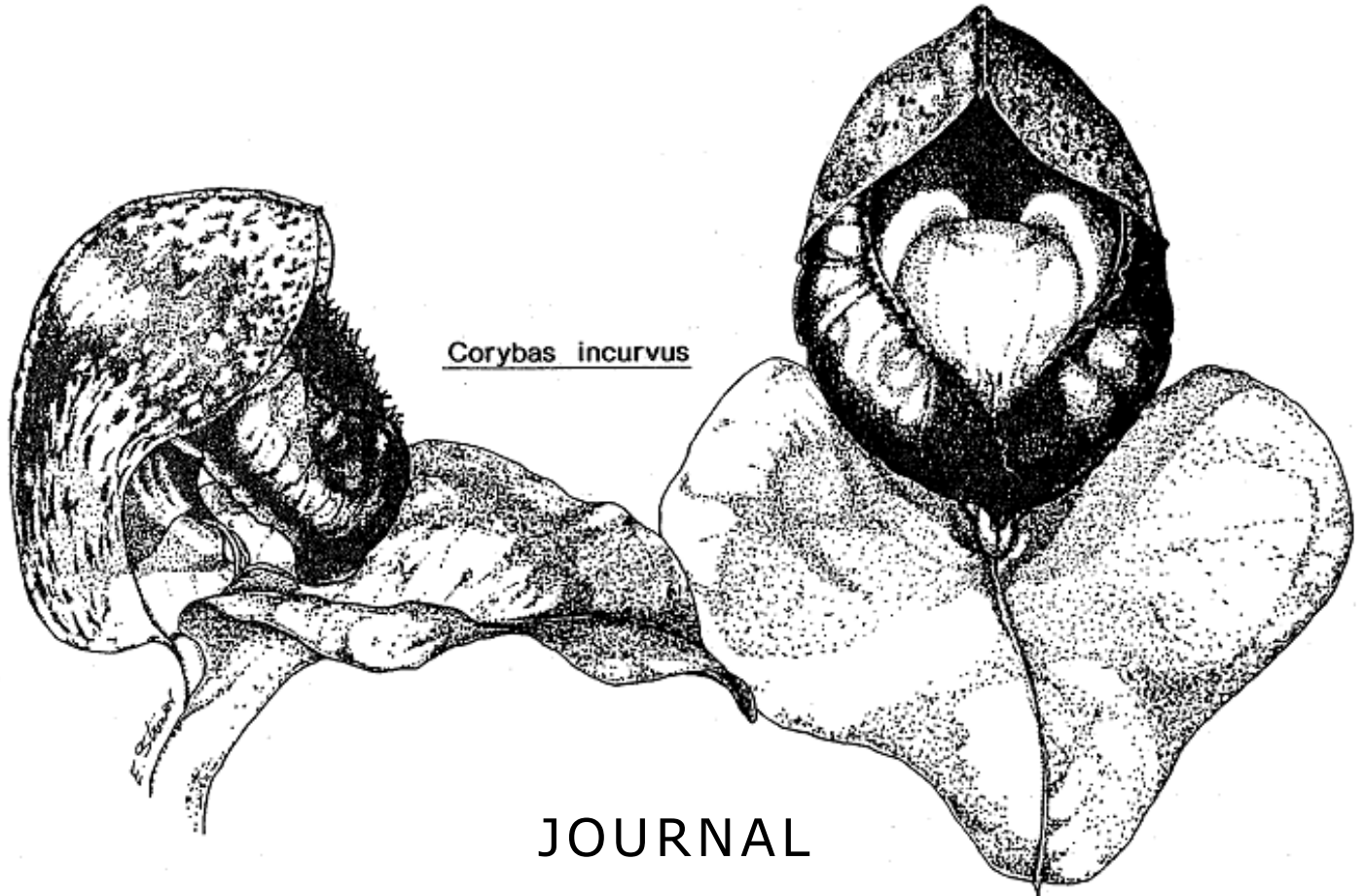


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JOURNAL

NATIVE ORCHID SOCIETY  
of  
SOUTH AUSTRALIA INC.

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

*The Native Orchid Society of South Australia promotes the conservation of native orchids through cultivation of native orchids, through preservation of naturally-occurring orchid plants and natural habitat.*

*Except with documented official representation from the Management Committee of the native orchid society of South Australia, 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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## NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

**JOURNAL**

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## NEXT MEETING

.When: Tuesday, 25 September, 1990, at 8.00 p.m.

Where: St Matthews Hall, Bridge Street, Kensington.

Why: Mr Joe Webber from the State Herbarium will address members on *Thelymitra* and his work in revising the genus.

## NEXT FIELD TRIP

The next field trip will be on Sunday, 21 October at the Echunga Police Training Reserve.

A 10.00 a.m. start and a picnic lunch.

Further details (how to get there, etc.) are attached to the last page of this Journal.

## PLANTS BENCHED AUGUST MEETING

Diuris palustris

## Terrestrials

*Caladenia alba*  
*C. caesarea*  
*C. filamentosa*  
*C. menziesii*  
*C. reptans*  
*Diuris citrina* x *lanceolata*  
*D. corymbosa* x *palachila*  
*D. palustris*  
*D.* (unknown - Don Wells)  
*Glossodia minor*  
*Pterostylis bicolor*  
*P. curta* (x 3)  
*P. curta* x *pedunculata*  
*P. cycnocephala*  
*P. x ingens* (x 3)  
*P. Joseph Arthur*  
*P. mutica*  
*P. nutans* (x 8)  
*P. recurva*  
*P. triffid*

## Epiphytes

*Dendrobium aemulum* (x 2)  
*D.* Bright Spark  
*D.* Ellen "Deloraine" x *D.* Ellen "Brobyalla"  
*D.* Kathryn Banks  
*D.* Star of Gold (x 2)  
*D.* Star of Riverdene  
*D. teretifolium*  
*D.* Wonga  
*Sarcochilus falcatus*

## RESULTS OF JUDGING

Terrestrials (Judge - Mr Bob Markwick)

Species: *Diuris palustris*, grown by Mr L. Nesbitt.

Hybrid: *Pterostylis* Joseph Banks, grown by Mr L. Nesbitt.

Epiphytes, (Judge - Mr Kevin Western)

Species: *Dendrobium aemulum*, grower un-named.

Hybrid: *Dendrobium* Ellen "Deloraine" x *D.* Ellen "Brobyalla", grown by Mrs B. Wells.

## RESULTS OF POPULAR VOTE

Terrestrials *Caladenia caesarea*, grown by Mr B. Bates.

Epiphyte. *Dendrobium* Kathryn Banks, grown by Mr D. Wells.

## PLANT OF THE MONTH

*Dendrobium linguiforme* (Tongue Orchid)

O. Swartz

The plant is epiphytic or lithophytic, forming large masses on trees or rocks. Its range is from the extreme south-east of New South Wales to at least the Burdekin River in Queensland. It grows from sea-level to altitudes of around 1000 metres, but is confined mainly to the coastal areas, although it has been found up to 250 kilometres inland. The inland plants have smaller, tougher leaves than those of the coastal areas, due no doubt to the harsher conditions under which they exist. It is not confined to a specific host but is found on quite a large variety of trees.

The rhizomes are prostrate and branching with thick, tough ovate leaves, 3 to 4 cm long, having distinctive longitudinal furrows on top

The racemes, up to 15 cm long, grow from just below the base of the leaf and bears from 6 to 20 flowers. The flowers are usually white or cream with a number of faint purple markings on the labellum.

The flowering time is usually August-September here, but earlier in the tropical areas.

It does not lend itself to pot culture but is very hardy and with a little care will grow freely on cork or hardwood slabs. I have had good success using pieces of melaleuca on which it readily establishes itself. It receives approx 75% shade.

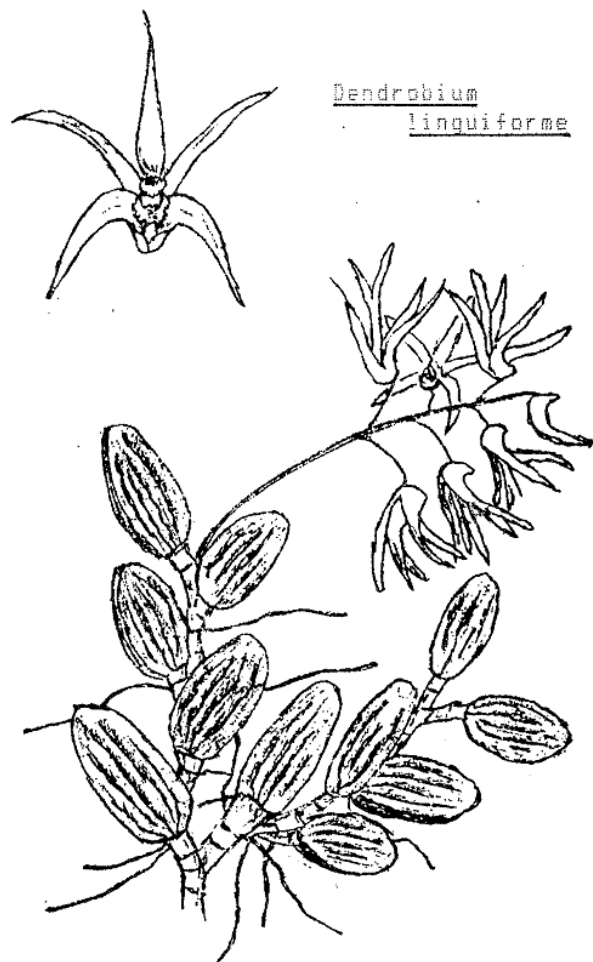
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should be protected from our frosts and can be fertilised using foliar fertilisers at half the recommended strength.

This is the variety of the species on which the genus *Dendrobium* was founded. It was first described by O. Swartz.

The plant which was formerly known as var. *nugentii* - the tropical form from about the Burdekin River north to the Bloomfield River in the south-east of Cape York Peninsula - has now been raised to species rank as *D. nugentii* by Jones and Clements.

Hybridising: Little has been done with hybridising this plant, however the few registered hybrids have, like *D. linguiforme*, been floriferous.



R.T. Robjohns

## FIELD TRIP REPORT

## ONKAPARINGA RIVER RECREATION PARK NOSSA SURVEY

Winter Excursion - July 22, 1990

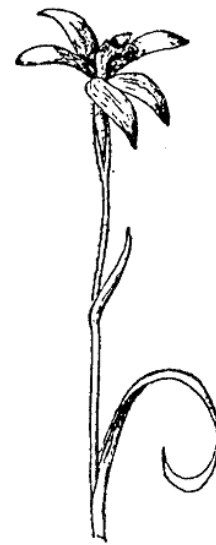
On a fine but windy day we assembled at the "Sundews Car Park" off Piggot Range Road to visit this new suburban park. We met about 80 members of the "Friends of Onkaparinga Recreation Park" group who were planting 5000 trees on the bare slopes of this largely cleared and long grazed park. After a short walk we reached the Sundews Lookout (named for the rare *Drosera praefolia* named by nineteenth century orchidologist Otto Tepper) which occurs there.



Pterostylis  
longifolia

The view from here is of a wild, rugged and very deep gorge. We then walked down into the gorge on the way seeing large colonies of *Cyrtostylis robusta* and *Pterostylis robusta*, the latter mostly smashed to pieces by fierce hailstorms a month earlier. Also seen were *P. nana*, *Acianthus exsertus* and *Cyrtostylis reniformis* (these in bud only). At the bottom of the gorge the river was pushing along and we were unable to see the rosettes of an unknown *Pterostylis rufa* group known to be growing on a large rock in the "middle of the river", surely an unusual location for a rufa group species since the rock is often submerged after heavy rain! Leaves of numerous other orchids were seen on the steep rocky slopes.

After a stop at Clarendon Bakery we drove down Chapel Hill Road to the north-west corner of what will become Hardy's Scrub Conservation Park (Hardy's Scrub is adjacent the east boundary of Onkaparinga Gorge Recreation Park). The habitat here was quite different - flat, sandy and with *Callitris preissii*, whereas the pine in the Onkaparinga Gorge is *C. rhomboidiformis*. Consequently the orchids seen were quite different. By our picnic site on the edge of the road there grew a colony of 80 cm tall *Pterostylis longifolia* with here and there *P. sanguinea* under the pines. It was interesting to note the brilliant green spiders hiding on the green flowers of the *P. longifolia*! Nearby the common helmet orchid *Corybas diemenicus* (in full flower) and *Acianthus caudatus* (in bud) were found in mixed colonies.



Caladenia  
deformis

Our final stop was made at Manning F.N. Reserve, an area of low scrub on stabilised sand dunes. Orchids seen were similar to those at Hardy's with the addition of *Caladenia deformis* and *C. latifolia* still in bud.

Although there were no surprises we did note that two orchids seen at Onkaparinga Gorge (namely *Leptoceras menziesii* and *Cyrtostylis*

## Field Trip Report (contd.)

*robusta*) were not on the plant list for the park which is surprising considering they were the most common orchids along the Sundews main track. Also of interest was the discovery of plants of the rare *Pterostylis foliata* in each of the areas visited each time in quite different habitat.

ORCHIDS SEEN: (1) Onkaparinga (Sundews Track)  
 (2) Hardy's Scrub  
 (3) Manning

## In flower:

*Acianthus exsertus* 1,2,3  
*Cyrtostylis robusta* 1  
*Corybas diemenicus* 2,3  
*Pterostylis longifolia* 2,3  
*P. nana* (Hills *nana*) 1,2,3  
 (Mallee *nana*) 3  
*P. robusta* 1  
*P. sanguinea* 1,2,3

## In seed:

*Eriochilus*, *Microtis* sp.

## In bud or leaf:

*Acianthus caudatus* 2,3  
*Cyrtostylis reniformis* 1,2,3  
*Caladenia deformis*,  
*C. latifolia*, *C. leptochila*,  
*C. tentaculata*, *C. reticulata*.  
*Diuris pardina*, *D. corymbosa* 2  
*Lyperanthus* 2,3  
*Thelymitra* (various)  
*Pterostylis pedunculata*,  
*P. nutans*,  
*P. foliata* 1,2,3

## LAST MEETING

Thank you to Gerry Carne who organised for members keen on photography to show six of their favourite orchid shots and demonstrate the photographic equipment they used to achieve their results.

Some members used very simple equipment: automatic camera with macro lens and ring flash and simply walked up to the orchid subject, went "click" and were happy with the result. Other members used tripod, twin flashes, reflectors, bellows, diopters, telephoto lens, recorded all details of each shot taken and photographed each subject several times at different exposures or lens aperture settings. These members too were happy with their results. Members who used simple equipment tended to be those who were backpackers, hiking over difficult terrain. Their subjects were usually wild plants. Members who used complicated equipment were more likely to photograph at home; their subjects were often tamed plants.

Most discussion centred on lighting. It was fascinating to see how the same orchid could be photographed backlit, frontlit, natural light or flash and each time the result would be quite different. With ring flash a portrait effect was usually achieved - no shadows, perfect detail, unnatural flatness. With natural light, shadows give a realistic (if often less clear) image. The best natural light was not bright sunlight but hazy light such as occurs on a day with wispy cirrus cloud.

Bob Markwick showed a simple system of clamp and wire used to hold orchid flowers steady on windy days.

Thank you to those people who participated.

## SHADEHOUSE AND GLASSHOUSE VISIT - AUGUST 1990

Once again Roy Hargreaves, the Convenor, carefully selected our hosts for the day to cater for a wide range of interests, and if the reaction of our group was a fair sample, he succeeded in this most admirably.

Our first visit was to Don and Bubs Wells' home at Windsor Gardens. After fifteen years of trial and error, they feel they are now getting close to establishing a rainforest micro-climate in a covered-in area adjacent to the back door, and from the lush growth of the wide variety of ferns and palms growing there, we could well believe it. They also have a cold glasshouse and a shadehouse, which is partly covered by plastic in the winter months.

I am not going to try to list all of the things we saw worthy of comment, but the following may be of help to those who couldn't join in the visit:

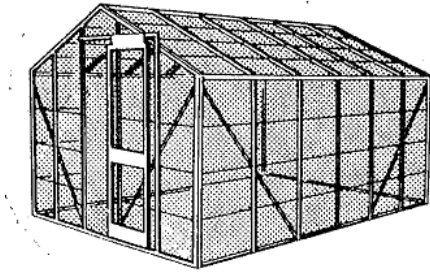
1. Two sprinkler systems are used - one to water, and the other (using Moss fittings) for misting.
2. Ponds are an integral part of the mini rainforest, building up the required humidity.
3. *Dendrobium speciosum* were suspended near the roof, over a pond - height, light and humidity.
4. *Cymbidium canaliculatum*s were hung under the eaves of the house out of the rain during the winter.
5. *D. striolatum* grew strongly in blue dolomite aggregate in a flat container.
6. *Phaius tancarvilliae* backbulbs and sections of flower spikes can be shot by placing in plastic bags with just moist sphagnum moss. This method can also be used for *Cymbidiums*.
7. Once the terrestrials have died down, they are placed under a bench and covered with plastic sheeting. They receive a light watering monthly.
6. Don's basic terrestrial mix is equal parts of sand, small blue metal, gritty mountain Soil, eucalypt leaf litter and eucalypt buzzer chips. The recipe is varied slightly as experience demands.
9. Of the three fine *D. Ellen* they had in flower, *D. Ellen* "Deloraine" x *D. Ellen* "Brobyalla" really took the eye for colour and its 20 cent size flower.

Our next hosts were Les and Marie Burgess at Hillcrest. They are particularly keen *Cymbidium* growers, and their interest naturally extended to our native *Cymbidium* species and their hybrids. They had two specimens of *C. suave*, for instance - one in a 12" concrete pipe about 1½ metres long, out of which a side growth was already protruding from a hole chipped into the side, and a smaller one in a 4" earthenware pipe.

*C. maddidum* hybrids predominated and although several were in spike,



## Shadehouse and Glasshouse Visit (contd.)



our visit was a little too early to give many of us our first look at these interesting crossings. Some of the crossings we can recall were: Norma (madidum x alexanderi), Bob Norton (madidum x Mirietta), Pat Ann, (Apollo x madidum), Cricket (devonianum x madidum), Cricket x canaliculatum and Lamorack (Charm "Elegance" x canaliculatum "sparkesii").

Worthy of special note, too, were two *D. Hilda Poxon*. One was a fine specimen plant which had obviously just finished flowering, and the other had literally more flowers than leaves. What caught everyone's eye was the heavy brown spotting which was most attractive. A pale pink form of *D. Ellen Katherine Banks* was also admired by all.

Our final port of call was the Black Hill Flora Centre where, with the kind permission of the Senior Scientific Officer, Dr Manfred Jusaitis, Philip Matthews gave us a conducted tour of the laboratories, new specimen isolation area, seed store, sterilisation and potting mixing areas before taking us through the growing glasshouses and on to the shadehouse section to see the terrestrial orchids.

The orchid collection has now built up quite substantially and is obviously quite at home in its location because 'several "self-sownees" were noted growing nearby. Most of the orchid tuber bank supplies are also grown here, and Roy Hargreaves has done a sterling job, going out weekly to weed and look after them.

Full credit must be given to Philip for the knowledgeable explanations he gave of the functions performed by each section, and his contribution in looking after the orchids for the tuber-bank. Perhaps the greatest impact our visit to the Centre had was to bring home to us the fact that the days of "hit and miss" propagation have gone, and that science, precision and sterile conditions are some of the major essentials for success.

To our generous hosts and to Narelle Matthews who so ably supported Philip at the Centre, we wish, on behalf of all those who attended, to say thank you for the time you devoted to us and for the "cuppas" and fellowship you dispensed so freely.

Fay and Malcolm Maxwell

THANKYOU

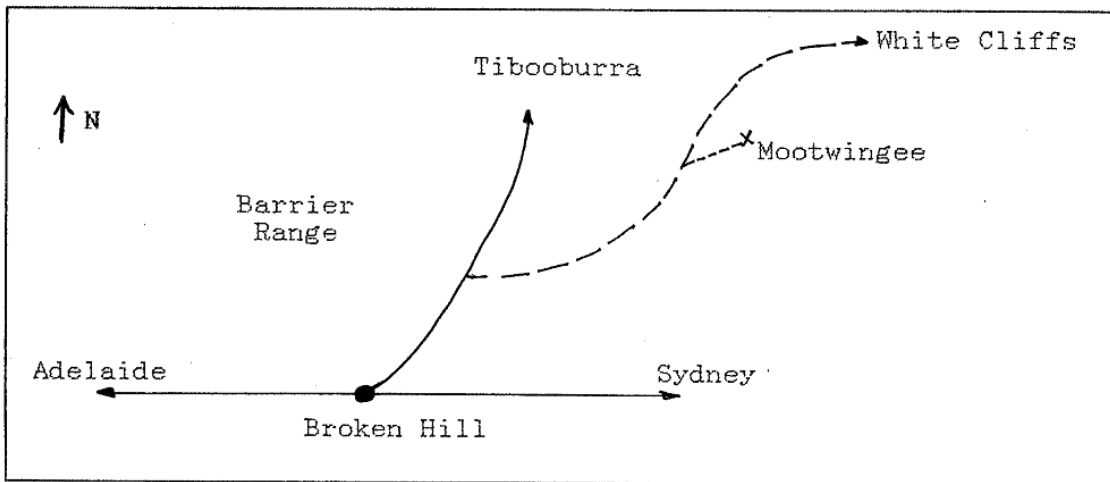
I would like to sincerely thank Fay and Malcolm Maxwell for so ably writing up the report on our very successful glasshouse/shadehouse visit - also our hosts: Les and Marie Burgess, Don and Bubs Wells, Dr Manfred Jusaitis, Philip and Narelle Matthews and others for their interest and support.

Roy Hargreaves

## BEAUTIFUL MOOTWINGEE AND ITS ORCHIDS

Mootwingee! Where's that?

Mootwingee is something of an oasis in the semi-desert country north-east of Broken Hill. To get there - take the Silver City Highway out of Broken Hill north toward Tibooburra. Soon after the bitumen peters out (about 40 kilometres out of "The Hill") take the turn east out onto the dusty plains on the road which (eventually) leads to White Cliffs. About 50 kilometres along this dry-weather-only road a low range can be seen and a large sign announces that you have reached Mootwingee National Park. This is a large park with extensive trackless wilderness areas centred on the Bynguaroo Range. There are no facilities except a camping and visitor centre at Homestead Gorge. Ranger-guided walks are given daily.



The Range is one of low sandstone and conglomerate, deeply dissected by numerous gorges and chasms. Rock ledges "waterfalls", cool waterholes, aboriginal paintings, emus, roos, euros, rock wallabies and pythons are wonderful attractions. Homestead Gorge is like a miniature version of the Grand Canyon - just like a scene out of a Western movie! Visitors are advised not to wander too far from the well marked trails as it is easy to get lost in the maze of gullies.

But are there any orchids?

We doubted there would be any out here in the desert but we were wrong. Our visit at the beginning of October showed that "rufa group" *Pterostylis* grew like weeds on rock ledges along the deeper gorges, especially where native pines (*Callitris columnellaris*) grew. There seemed to be three different species, none matching any named ones we knew - a tall red-flowered species, a stocky brown and a dwarf green - probably three unnamed and two perhaps never-collected species. The ranger thought there was only one species and had sent material to Canberra.

We were surprised to see how common *Microtis* were. These little green onion orchids grew in large colonies all along the side creeks. There seemed to be two forms: a common small labellum *M. unifolia* and a rarer large labellum form.

## Beautiful Mootwingee and Its Orchids (contd.)

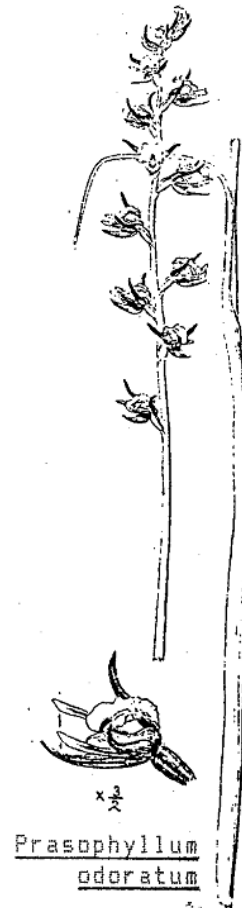
What makes the range so colourful is the large area of bare rock - whenever light rain falls water runs off the rock sheets, and floods the surrounding ground and in the deep gorges it takes weeks to dry out - thus it is possible for orchids to grow out here in such dry country.

We also located a small clump of *Prasophyllum odoratum* high up in the range wilderness area and there is said to be an autumn-flowering species in the area too (possibly the inland *Pterostylis parviflora* but we saw none.

In an area such as Mootwingee the attraction is not of a variety of orchids but that there are any orchids at all. With the wonderful scenery and its other wildflowers Mootwingee is well worth a visit - two days is long enough to see the main attractions.

The one sad thing about Mootwingee is the huge population of feral goats. There are so many that the park could well be renamed Wild-goat National Park.

Mark Phillips



## BOTANISTS OF THE ORCHIDS No. 11

## JAMES DRUMMOND (1784-1863)

Drummond was born in Scotland. In 1809 he was appointed curator of the Cork Botanical Gardens, Ireland. In 1829, with his wife and family, he emigrated to Perth to take up the position of government botanist and agriculture adviser - an unpaid position! Luckily in those days European museums and scientists paid well for specimens of Australian flora and fauna and Drummond was an ardent collector - so ardent that by 1875 about half of the named Western Australian orchid species were based on collections made by him. He sent his pressed plants to J. Hooker, Charles Darwin, Priess and Lindley and collected with Baron von Huegel in 1833! More than 100 plants are named after him (from *Acacia*, to *Swainsona*)! As well as the plant collections he made he collected birds and mammals. Almost 1000 of his collections are now Types. Orchids named after him include *Caladenia drummondii*, *Diuris drummondii* and *Prasophyllum drummondii*, the Types of which he collected. An orchid named by Drummond is *Diuris pieta*. He died in Toodyay near Perth at the age of 80.

Reference: "The Drummonds of Hawthornden" by Rica Erickson (1969).

Sandy Phillips

## CALADENIA MENZIESII - ARTIFICIAL INDUCTION OF FLOWERING

(from NOSSA Journal, February, 1988)

*Caladenia menziesii* is an orchid species which requires a bushfire to cause it to flower freely in the wild. Attempts by members to initiate flowering by burning leaves of eucalypt species on the pots have produced little success in the past.

Research botanist, Dr Kingsley Dixon of Kings Park, Perth, Western Australia, found that tubers of *C. menziesii* sealed in a plastic bag with a ripening banana for one to two weeks before sowing resulted in profuse flowering of the resulting plants. In this way, some of the ethylene gas used by the banana wholesalers to ripen the bananas upon their arrival escapes from the banana into the sealed plastic bag and penetrates the orchid tubers.



*Caladenia  
menziesii*

At the Black Hill Native Flora Centre, *C. menziesii* was grown in a compost comprised mainly of grey Hills sand with a little Hills soil added. They had been grown in large styrene foam boxes and had grown and multiplied without flowering for four years. They were grown under 50% shade cloth and were protected from the hot summer sun.

I had tried placing two bananas on top of the compost and sealing over until the bananas had ripened. The result was two flowering plants, from directly under where a banana had been placed.

In January 1987 tubers were treated as suggested by Dr Dixon until the banana was well and truly ripe (just over two weeks). The tubers were then sown in the usual manner at a depth of about 3 cm down from the surface of the compost which was occasionally damped down until the arrival of the rainy season. Unfortunately no record was kept of the actual number of tubers planted but there were 70 flowering plants, several of these having pairs of flowers. Some of the leaves were 9 cm long x 3.5 cm wide and some flowers were 25 cm in height. In December 1987, 230 tubers were obtained from the box. Non-treated tubers which had been planted at the same time as the above-mentioned tubers did not flower but it was noted that the tubers from these pots were larger than those produced from the flowering plants.

We are grateful to Dr Dixon for the information passed on to us regarding the use of artificially ripened bananas as a source of the ethylene gas which triggers the tubers to produce flowering plants in this species of orchid.

Despite similar attempts to induce *Lyperanthus nigricans* (another fire-induced flowering orchid) to flower I have had no success yet. Have you?

Roy Hargreaves

I would love to hear from those who may be experimenting with something similar to the above. Ed.

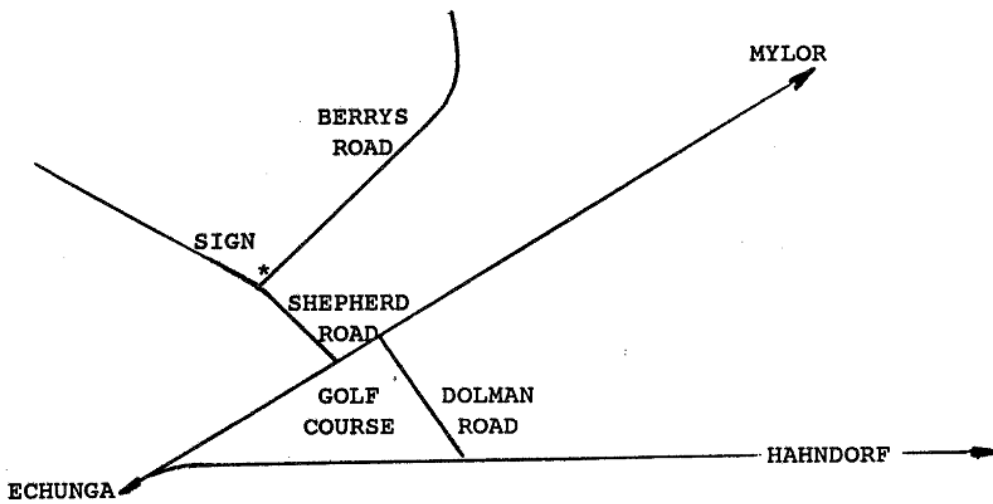
FIELD TRIP

SUNDAY, 21ST OCTOBER

ECHUNGA POLICE TRAINING RESERVE

MEET AT 10.00 A.M., AT JUPITER CREEK GOLD DIGGINGS SIGN, CORNER SHEPHERD ROAD AND BERRYS ROAD, ECHUNGA. SHEPHERD ROAD IS ON THE MYLOR SIDE OF THE ECHUNGA TOWNSHIP, OFF THE STRATHALBYN ROAD.

BRING AND SHARE A B.Y.O. PICNIC LUNCH ON THESE 'HARD TO GET ON TO GROUNDS'. SEARCH FOR ORCHIDS THAT PROBABLY HAVE NEVER BEEN SOUGHT FOR BEFORE, OR, JUST ENJOY THE ENVIRONMENT. NOTE: THAT ACCESS IS CONTROLLED AND SPECIAL PERMISSION HAS BEEN OBTAINED TO HAVE THIS TRIP.



GEOFF EDWARDS