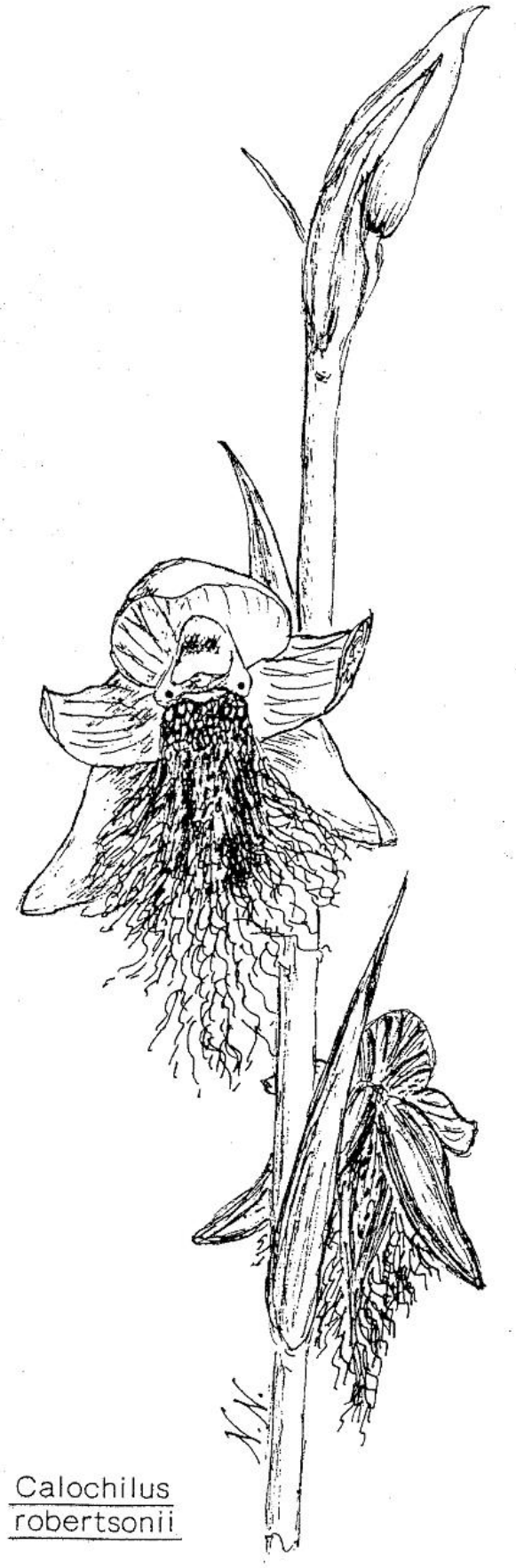

Calochilus robertsonii

NATIVE ORCHID SOCIETY of SOUTH AUSTRALIA INC.

JOURNAL

NOVEMBER 1991

Volume 15, No. 10.

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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

November 1991 Vol. 15, No. 10.

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NEXT MEETING

When: Tuesday, 26 November, 1991, 8.00 p.m.

Where: St Matthews Hall, Bridge Street, Kensington.

Why: Members are reminded that the November break-up meeting signals our traditional pre-Christmas Auction. Now is your chance to bring plants (orchids, ferns, etc.), pots, accessories or anything else for auction. Remember - all proceeds go to your Society. This is a really fun evening and a plate of supper to round off proceedings would be appreciated.

Visitors always welcome.

LIBRARY NEWS

All library books must be returned at the November meeting to enable our librarian to carry out the annual library audit.

CHRISTMAS "LAMB-ON-A-SPIT" BARBECUE.

We are looking forward to this inaugural event with anticipation!
See page 101. for details.

PLANTS BENCHED OCTOBER MEETING

Terrestrials.

Caladenia calceola
C. tentaculata
Diuris Aurea x D. drummondii
"Buttery"
D. spathulata
D. Sunburst
D. venosa
Microtis parviflora
M. rara
Pterostylis aff. *rufa*
P. rufa (x 3)
P. setifera
Chiloglottis trapeziformis
Orchis morio (European)

Caladenia tenta-culata

Epiphytes

Dendrobium Ella Victoria Leaney
D. fleckeri
D. kingianum (x 3)
D. kingianum "Lipstick" x self
D. unknown
Sarcochilus falcatus
S. fitzgeraldii
S. hartmannii (x 2)
S. Lois x *S. ceciliae*
S. Mavis x *S. australis*
S. Melba x *S. fitzgeraldii*
S. Jewell x *S.* Melba

Dendrobium kingianum

PLANT COMMENTARY AND JUDGING

Terrestrials: Mr Bob Bates
Epiphytes: Mr Noel Oliver

RESULTS OF JUDGING

Terrestrial Species: *Microtis rara*, grown by Les Nesbitt.
Terrestrial Hybrid: *Diuris aurea*, grown by Les Nesbitt.
Epiphyte Species: *Sarcochilus hartmannii*, grown by Ron Robjohns.
Epiphyte Hybrid: *Dendrobium* Ella Victoria Leaney, grown by Geoff Edwards.

RESULTS OF POPULAR VOTE

Terrestrials: *Diuris aurea*, grown by Les Nesbitt.
Epiphytes: *Sarcochilus hartmannii*, grown by Ron Robjohns.

ORCHID OF THE MONTH

Ron Robjohns

Dendrobium cucumerinum (Macleay ex Lindley)

(the Cucumber orchid)

Dendrobium cucumerinum is an epiphytic plant which is sparsely dispersed throughout a habitat extending from central eastern New South Wales and along the creeks and ridges of the Blue Mountains to a little beyond the MacPherson Ranges in southern Queensland.

It is a small species with creeping branched rhizomes, sometimes growing into large clumps but more usually strung out in long lines. It is tolerant to a fair intensity of light and to winter temperatures below freezing and its most favoured host is the "River Oak" - *Casuarina cunninghamiana*.

This plant owes its name (both botanical and common) to the form of its leaves which are thick, fleshy, blunt, tuberculate and having longitudinal raised keels and so resembling small prickly cucumbers.

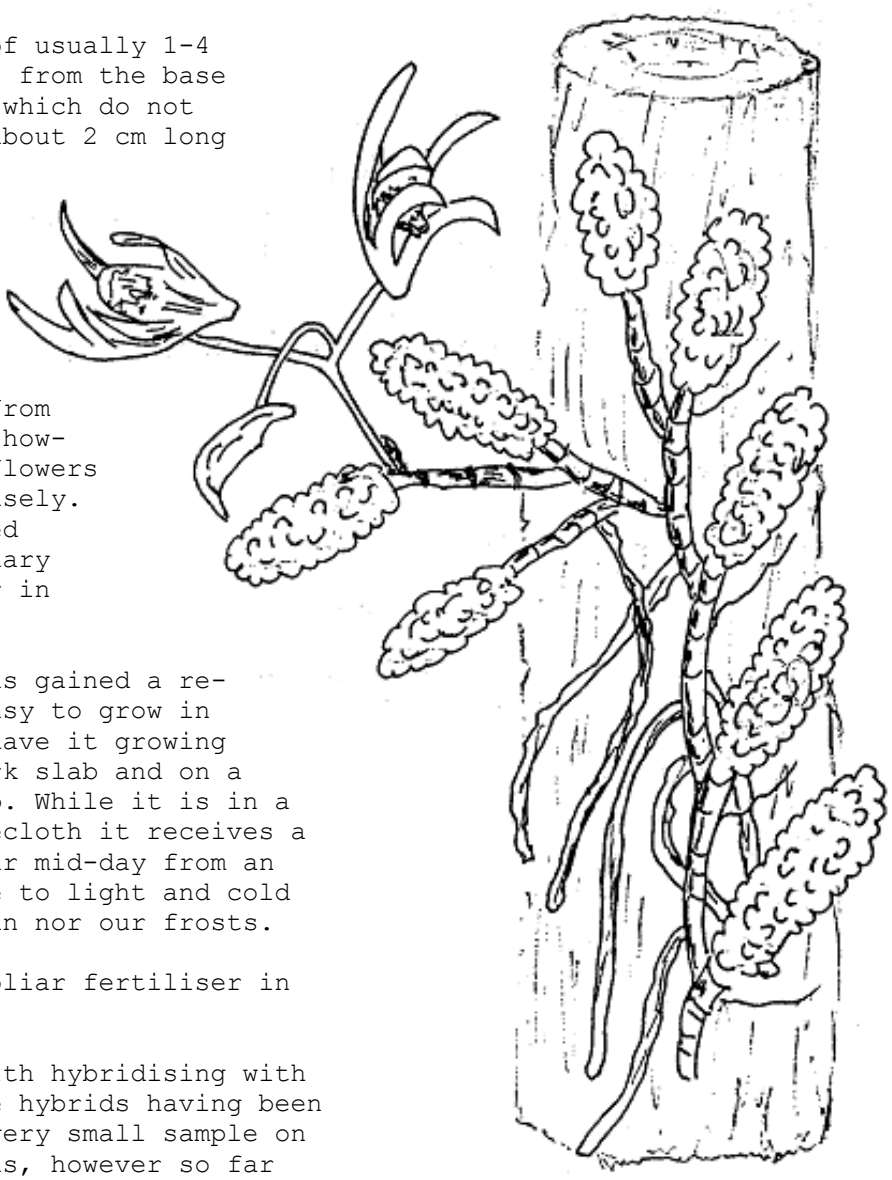
It throws short racemes of usually 1-4 slightly perfumed flowers from the base of the leaf. The flowers which do not usually open widely are about 2 cm long and 3 cm in diameter. They are cream to greenish-white, the labellum having purple or red markings and with crisped margins.

The flowering period is from November to late summer, however, in cultivation it flowers irregularly and not profusely. One of my plants produced one raceme in early January and another a month later in February.

Dendrobium cucumerinum has gained a reputation of not being easy to grow in cultivation, however, I have it growing on natural cork bark, cork slab and on a piece of a *Melaleuca* limb. While it is in a shadehouse with 50% shadecloth it receives a little extra shade near mid-day from an adjacent tree. Tolerance to light and cold does not mean our full sun nor our frosts.

Fertilising is by weak foliar fertiliser in the growing period.

Little has been done with hybridising with this plant. Only three hybrids having been registered which is a very small sample on which to base observations, however so far the flowers are generally midway between the parents.



Dendrobium cucumerinum

THE FLASKING OF ORCHIDS

Kevin Western

(Continued from NOSSA Journal, September 1991, pages 76-79.)

PROBLEMS ASSOCIATED WITH THE FLASKING PROCESS

The major problem with both symbiotic and asymbiotic seed raising is the need to avoid contamination of cultures with bacteria and fungi (micro-organisms).

The problem is most significant since both symbiotic and asymbiotic culture media are rich nutrient sources which will support growth of unwanted organisms to the detriment of the seed we are hoping to germinate and grow.

Not only do we have to exclude micro-organisms during the seed sowing stage but it is necessary to use containers which will resist or prevent entry of micro-organisms during storage and growth of seedlings in flask.

The environment in which the flasks are stored is also important in that it must be hygienic and have few micro-organisms present or infection of cultures is possible.

Everything which is used in flasking has to be sterilised and sterility must be maintained during any processing work.

STARTING MATERIALS

CONTAINERS AND LIDS
must be
* heat resistant
* clear
* permit air exchange
* prevent entry to micro-organisms
* robust to permit storage and handling

MEDIUM
must be
* accurately compounded
* pH adjusted
* sterile in the final container
* suited to the orchid to be grown

OTHER RINSING OR ADDITIVE SOLUTIONS
must be
* sterile
* non-toxic

The Flasking of Orchids (contd.)

EQUIPMENT FOR USE e.g.

knives
spatulas
scalpels
tweezers
scissors
petrie dishes

must be durable and capable of sterilisation by a heat or chemical sterilisation process and must be sterilised before each operation.

OPERATOR

The skin of the hands, wrists and forearms of the operator are a rich source of infective micro-organisms both as those which normally live on our skin and those we acquire by our contact with the environment.

At best we can only hope to "sanitise" our skin. Sterile gloves are a usefull solution to the problem but must be properly donned and may become contaminated by contact with non-sterile surfaces. Gloves are not necessary if good aseptic techniques are used.

Hands and forearms should be sanitised by scrubbing with betadine (iodine) or hibitane (chlorhexidine) followed by spraying with a 7:3 mixture of methylated spirit (alcohol) in water. This spraying should be repeated at about 15 minute intervals to maintain relative freedom from micro-organisms.

FLASKING ENVIRONMENT

The simplest sterile working environment for aseptic flasking operations can be made from curtain wire and clear sheet plastic. The curtain wire is used to produce a frame which when draped with the sheet plastic which is folded and tucked creates a box leaving only sufficient opening for entry of flasks, equipment and the operators hands and forearms and provides clear vision of the contents and sufficient working space for the operator.

Custom built Perspex or similar boxes are quite successful, more durable, more convenient and easier to use.

Sterilisation of the internal walls of the "sterile tent" can be achieved by swabbing with a 1 in 4 to 1 in 8 dilution of White King in water. The atmosphere in the sterile tent can be sterilised by spraying with a 7:3 mixture of methylated spirit in water.

The Flasking of Orchids (contd.)

TECHNIQUE AND PROCEDURES

This is the most important aspect of flasking. Without good procedures and techniques all sterilised media and equipment will become contaminated and the work will be ruined by overgrowth of introduced micro-organisms.

1. The operator scrubs up then sprays up with metho/water.
(No Smoking !!!)

2. Swab the interior of the sterile cabinet with White King/water mix then spray the metho/water mix into cabinet atmosphere.

3. Surface decontaminate all flasks of sterilised medium and all items of equipment by spraying with metho/water or by dunking in 1:4 White King/water taking care to reach thread areas too before placing in sterile tent to become surface sterile. (Any wogs on the outside may find their way into the flask when it is opened.)

4. Scrub and decontaminate seed pods or process any dry seed and once in White King/water in a suitable container, sterilise the container exterior with metho/water or White king/water before adding it to the sterile tent.

5. Re-spray hands and forearms and prepare to start work.

6. Proceed by assuming hands are not sterile and avoid contact of the hands with critical regions of the equipment and flasks in use - avoid touching thread, lip or internal surfaces of flasks or lids. Avoid touching critical regions of equipment in use. Avoid having droplets of moisture from the hands or arms splash or drop on to tools, pods or flasks.

7. Seal flasks securely before removing from sterile tent.

8. Label to completely identify contents.

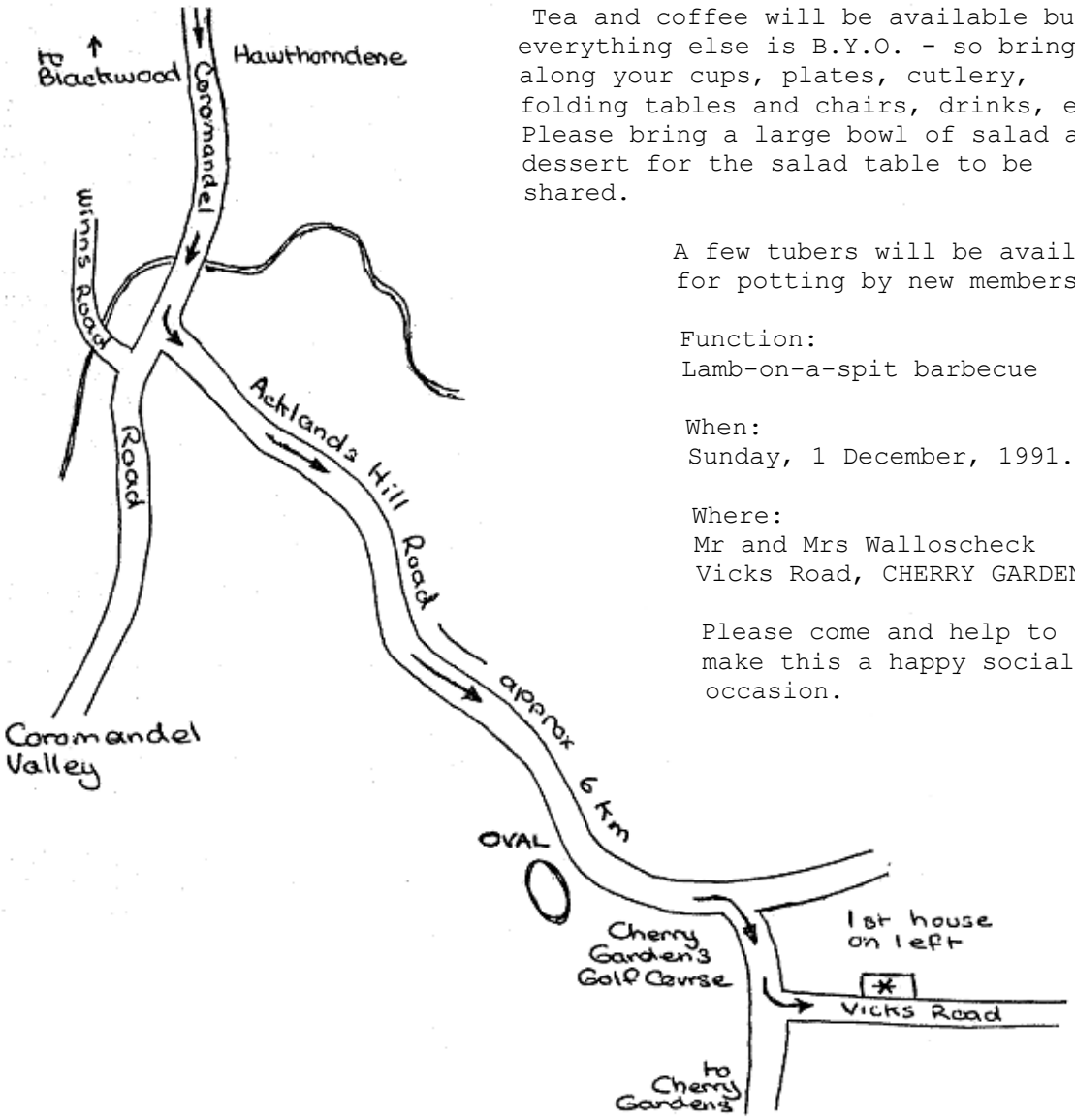
9. Maintain accurate records.

10. Place in proper lighting and hope for the best.

Good luck if you try. Kevin Western

CHRISTMAS "LAMB-ON-A-SPIT" BARBECUE

A barbecue with a lamb on a spit has been arranged for all NOSSA members and their families at the home of Mr and Mrs Wally Walloscheck, Cherry Gardens, on Sunday 1 December, commencing at 12.00 o'clock. The meat has been donated by the NOSSA Committee.



Tea and coffee will be available but everything else is B.Y.O. - so bring along your cups, plates, cutlery, folding tables and chairs, drinks, etc. Please bring a large bowl of salad and a dessert for the salad table to be shared.

A few tubers will be available for potting by new members.

Function:
Lamb-on-a-spit barbecue

When:
Sunday, 1 December, 1991.

Where:
Mr and Mrs Walloscheck
Vicks Road, CHERRY GARDENS.

Please come and help to make this a happy social occasion.

"THAT'S LIFE!"

New Zealand botanists who spent years searching for an orchid thought to be extinct sat on it during a lunch break. The tiny native *Corybas carseii* was not harmed and 14 more were found nearby.
(from the Hobart Mercury, 2.10.91)

"RED" SPECIOSUMS

(From ANOS - Far North Coast Group Newsletter, March, 1991.)

My introduction to this fascinating form of speciosum came as a great shock to me two years ago. Being a speciosum "freak" I have been obtaining all colours and varieties over many years and have them growing around our swimming pool at ground level and in wire hanging baskets under shadecloth. I couldn't believe my eyes one morning, in early August, 1989, when I saw a small clone opening its early flowers showing intensive spotting which gave a "red" appearance. I put the plant in a safe spot, away from visitors hands, and watched each flower as it came out. A fort-night later another miracle happened. Two more clones opened flowers, which were also spotted - and so started our activities. I sent photos of the flowers to Steve Clemesha and Ted Gregory for their comments.

The history of the clones I have is very interesting. In 1987 John Newton, a well-known Australian orchidist from Queensland, gave me as a gift, a quantity of speciosum varieties which included four that were of the spotted form. The fifth I obtained from another Queensland area. I decided to give them all clonal names starting with "Red" and they are as follows:

1. *Dendrobium speciosum* var. *curvicaule* "Red Prince"
2. *D. speciosum* var. *curvicaule* "Red Tzar"
3. *D. speciosum* var. *curvicaule* "Red Star"
4. *D. speciosum* var. *curvicaule* "Red Spot"
5. *D. speciosum* var. *curvicaule* "Red Denis"

Their origin is very interesting and I am sure will create a lot of discussion as more information comes to light. My own observations are that three of the clones from John Newton, I feel sure, come from Northern Queensland and another from another location.

The condition of the clones as I got them indicated they came from a fairly hard-growing area. However, after four years of ownership, I feel they have responded to cultivation and their growth and condition is remarkable.

Regarding the colour of the flowers I am quite sure that Steve Clemesha's description that "this desirable clone exhibits deep cream flowers with distinctive deep purple spots" (AOR 55/6, Dec. 1990) is correct. The colour which has been loosely called "red" is, in fact, a grouping of deep purple spots. The more spots there are the more the impression of a solid reddish block of colour, but it is a deep purple. On all my clones the colour combination varies from flower to flower and clone to clone, some of the tepals have up to half coloured and some labellums up to three-quarter coloured.

My culture is generally similar to other growers and to my other varieties, plenty of light being the main ingredient. I let them have full or ½ - day direct sun from April through to flower spike and bud form time, then get them into a light or dappled shade (no direct sun during flowering). I fertilise and water well during the flowering period and inspect each day or twice a day from August through February for the darned Dendrobium beetle!

As mentioned earlier three clones flowered in 1989, the remaining two in August and September, 1990. The last to flower was "Red Denis" and was given to Mr D. Lynch, President of ANOS Far North Coast NSW Inc., a well respected and qualified authority on speciosums.

"Red" Speciosums(contd.)

We started hybridising and planning activities in 1989 as follows:

Mike Symmons, Denis Lynch and I became a group, with Mike doing all the pollinating at his nursery on the Pacific Highway. (He also provided some parents from his big range of Australian species and hybrids.) Denis provided pollen from his several other champion varieties of speciosums and I provided the "Red" clones. We had the flasking done by Mr and Mrs Vic Miscampbell of Coolangatta.

Mike, with our first stage, had remarkable success with pollinating, which was followed by Vic Miscampbell having excellent flasking results.

The following hybrids are now well grown seedlings released on the latest listing of Pacific Orchids, we kept to a spread of siblings, a cross with a good kingianum and a big speciosum var. grandiflorum:

1. *D. speciosum* var. *curvicaule* "Red Prince" x *speciosum* var. *grandiflorum*.
2. *D. speciosum* var. *grandiflorum* x *speciosum* var. *curvicaule* "Red Tzar".
3. *D. speciosum* var. *curvicaule* "Red Tzar" x *speciosum* var. *curvicaule* "Red Prince".
4. *D. speciosum* var. *curvicaule* "Red Tzar" x *speciosum* var. *grandiflorum*.
5. *D. speciosum* var. *grandiflorum* x *speciosum* var. *curvicaule* "Red Prince".
6. *D. speciosum* var. *curvicaule* "Red Tzar" x *speciosum* var. *curvicaule* "Red Spot" and (*delicatum*) *kingianum* KR332 x *speciosum* var. *curvicaule* "Red Prince".

Our second stage planned for this year will involve a complete spread of siblings and some selfings. We shall use pollen from our better and heavier "Red" coloured flowers with two of Denis's champion yellow speciosums. Our hope here is to achieve another really exciting colour form. We also shall pollinate two quite vigorous var. pedunculatums to improve the "Reds" through upright and flower inflorescences.

We waited a season before attempting the second stage but as the culture improved so well during 1990 and the seedlings Mike is now marketing are first class it is obvious the "Red" clones indicate a reasonable growth factor.

I am extremely enthusiastic about future development of this form. The "Red" clones are very sensitive to good culture and the flowering colour has remained constant. Flowering, as Steve Clemesha said, is variable but this is only a speciosum habit and does not worry me.

G.R. Wirth, Pimlico, NSW.
February, 1991.

Ed: Although the growing conditions described in this article are for NSW, I felt this article would be of interest to many of our readers. Also, thankfully, we aren't worried by the Dendrobium beetle.

NEW MEMBERS GROUP -
REPORT ON LAST FUNCTION

The visit to Nesbitt's Nursery was extremely popular, attracting approximately 30 members - by far the largest meeting of the group this year. It was very pleasing to meet some of our members who do not normally attend our meetings. Les welcomed us and, against the competition from the next door neighbour's lawnmower, he talked about the nursery layout. Unfortunately it was not warm enough for many of the orchids to open and the pots only displayed a sea of buds.

Members browsed through the nursery and the plants for sale, and sales were brisk. Prior to afternoon tea we wished Kay a happy birthday and then Les knocked out a *Diuris aurea*, a *Diuris maculata* and a *Pterostylis rufa* to show members how to increase species by the "tuber removal" method. This exercise is possibly the most daunting to the novice terrestrial grower and we thank Les for sharing his experience with us and for the follow-up article in the recent journal.

G. Burford

QUOTES OF THE MONTH

"Each time you flower a new orchid it's like gaining a new friend: when you flower it again it's like meeting an old one."

"There is just one thing I can promise you about buying orchids interstate, your money will go further."

"The best orchid grower sits and watches with his ears."

from Orchidwise by Roger Rankin.

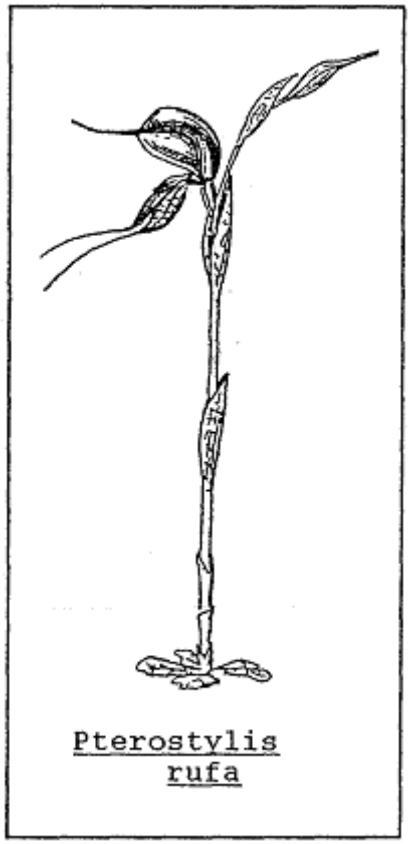
NEW MEMBERS

John Summers, Black Forest
Ken Sutton, Mannum
Ernest Iverson, Highgate
Alan and Judith Clarke, Aldgate

ON' THE BENCH - October

TERRESTRIALS:

Orchids not seen before included *Caladenia calcicola*. (These plants were rescued by Geoff Carr from Bots Ridges (the Type location) in South Western Victoria.) It was difficult to discern the difference between this species and our own *C. reticulata*.



Pterostylis rufa

It was interesting to see three pots labelled *Pterostylis rufa*. One of those, of plants from New South Wales with red nodding flowers (once known as *P. rufa* var. *prominens*) is the true *P. rufa*. Another pot of Victorian plants is an un-named species and in a third of unknown origin appeared to be *P. aciculiformis*.

A new hybrid made by Les Nesbitt and flowering for the first time was *Diuris drummondii* (a tall Western Australian species) x *D. sulphurea* (a species from the eastern states with long-lived flowers). The cross had the best features of both parents being tall with large yellow flowers which were thick texture and long lived.

Two unusual *Diuris* species were *D. spathulata* from outback New South Wales (with purple flowers) and a bright yellow *Diuris venosa* (usually purple).

R. Bates

NEXT FIELD TRIP

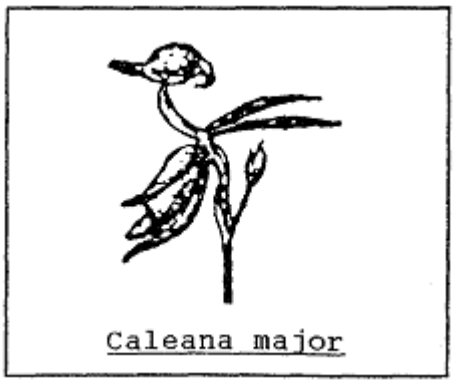
DUCK ORCHID SPECIAL

SUNDAY, November 30.

Meet Kangarilla Post Office at 1.30.

Did you know that there were once four different duck orchids to be found in the Mount Lofty Ranges?

Unfortunately two of them have not been seen for 10 years!



Caleana major

NOTES ON THE PHOTOGRAPHS IN ORCHIDS OF SOUTH AUSTRALIA, PART 4

Bob Bates

Continued from NOSSA Journal, September, 1991, page 84.

PLATE 28 This is one of the first slides I ever took - it illustrates how slides lose their contrast and brightness after years of storage.

PLATE 29 The two pink flowers in the photo match *Caladenia fuscata*, a species said to be distinguished by its single, glossy pink flowers having tall side lobes to the labellum and thick stemmed calli. The white flower curiously has shorter labellum side lobes and thin stemmed calli. Until this group is properly sorted out it is best to call them all *C. carnea.*

PLATE 30 This is an unusual form of *Caladenia coactilis*, recently named. *C. coactilis* is a plant of stony ridges in the Flinders Ranges and is often distinguished by its four rows of calli on the labellum. These were photographed using flash and blue back board in the field near Wirrabara.

PLATE 31 The recently named *C. prolata* photographed in situ, using natural light in Deep Creek Conservation Park. This shot was chosen as it shows clearly how the small dull flowers occur occur on long stems.

PLATE 32 The very rare *C. xantholuca* photographed many years ago in situ on a ledge overlooking Mambray Creek. This and the following photo were made from colour negative film not slides as were the rest of the plates. The only part of the flower not white is the calli and these are yellow, hence the name "xantholeuca" meaning "yellow and white".

PLATE 33, *C. clavigera* photographed near Lucindale in an area long since cleared.

(to be continued)