BULLETIN

OF THE

WESTERN AUSTRALIAN NATIVE ORCHID STUDY AND CONSERVATION GROUP (INC)

MARCH 1993

Registered by Australia Post Publication No. WBH 1240

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FIELD TRIP COORDINATOR	Nye Evans	
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COMMITTEE	Bill Burton	
	Steve Phillips	

OBJECTIVES OF THE GROUP

a. To promote interest in and preserve Western Australian indigenous Orchids.

b. To learn the best means of cultivation and do all things possible for the conservation of native orchids in their environments.

c. To learn their habitats and keep records.

d. To have field days and learn to recognise the different genera and species.

e. To hold meetings for the exchange of knowledge and furthering of interest in Western Australian orchids.

f. To affiliate with kindred organisations.

g. To make rules for the governing of the Group's domestic affairs.

h. To do all such other lawful things as are incidental to or conductive to the attainment of the above objectives.

NOTE: The opinions expressed by contributors to this bulletin are not specifically endorsed by the group.

POSTAL ADDRESS OF GROUP

PO Box 323
Victoria Park 6100

NEXT COMMITTEE MEETING - Wednesday, 17 March, 1993 at 7.00pm, Kings Park Board Administration Centre.

NEXT GENERAL MEETING - Wednesday, 17 March 1993 at 8.00pm, Kings Park Board Administration Centre.

Topic for General Meeting

Chris French and Nye Evans will discuss the Pterostylis aff. rufa complex and show slides of these orchids that they saw while on field trips towards the end of 1992.

BULLETIN CONTRIBUTIONS

Contributions are needed for every edition of the Bulletin. Articles should be sent to Marie French

The article submission deadline for the next issue of the Bulletin is 1st April, 1993.

ANNUAL GROUP MEMBERSHIP FEES.

1993 Membership Fees are now due!
The group membership fees for 1993 as follows:

Single Membership	$20.00 pa
Family Membership	$20.00 pa
Junior Membership	$ 2.00 pa

FORTHCOMING FIELD TRIPS

Saturday April 10 - Australind

The first field trip for the year is to the Pinjarra and Australind areas to search for "Praecoxanthus aphyllus". Eriochilus "dilatatus subsp. multiflorus" and Leporella fimbriata will also be flowering.

We will be meeting at 10.30 am at the junction of Marriot Rd and South Western Highway, Australind.

Saturday April 24 - Corrigin

This trip is to the Corrigin area to look for Genoplesium nigricans. We will also visiting other locations in the area to look for Eriochilus "dilatatus subsp. undulatus" and also Leporella fimbriata. We meet at the entrance to the Sports Centre on the right hand side of the road in Brookton.

WELCOME TO NEW MEMBERS.

The Committee and members would like to welcome the following New Members

Dr. Robert Humpheries and Ms. Sally Robinson
Dr. Michael Wheatley
Mr. Alan Tinker
Mr. Michael Duncan
Frank and Jenny Budas
Mr Stephen Say
Mr and Mrs Tindall and family of
Patricia Shelley

We hope you have a long and rewarding association with WANOSCG.

Editor's Note

Please Note: All manuscripted orchid names in the Bulletin, will be highlighted by inverted commas, "...".

FIELD TRIP REPORTS

York. August 23 1992.

We were heading in the general direction of York looking for some promising looking bush when we decided to stop for lunch at Forsyth's Mill. While we were there we managed to find the following species: Diuris brumalis, Caladenia flava (bud), Thelymitra crinita (bud), T. macrophylla (leaf).

Then we headed along the York Road and just as we passed Hortin Rd, someone saw some clumps of Diuris on the side of the road. We spent a good while here. The following orchids were located: Diuris brumalis, Pterostylis recurva, P. barbata, P. vittata, P. sanguinea, Caladenia longiclavata, "Cyanicula" sericea (leaf) and Thelymitra crinita (leaf). Some of the Pterostylis were huge. We found a P. recurva with 5 flowers and a P. vittata with 27 flowers.

So we continued along the York road and we decided to turn off at Warden Road. We stopped and got out several kilometres along this road. The following orchids were found. Pterostylis recurva, "Burnettia nigricans" (leaf), and Leporella fimbriata (leaf). After a pleasant day orchid hunting and bird watching we headed home.

Ryan Phillips

Bridgetown 4-6 September 1992.

On friday 4th of September we headed to Bridgetown for the weekend. We again stayed at the farm chalets 8 km South of the town.

Once settled into the chalet, the wildflowers led us to the forest near the farm. We were pleased to find the following orchids: Caladenia flava, C. reptans, C. longiclavata (bud), Pterostylis nana, P. vittata, "Burnettia nigricans" (leaf), Lyperanthus serratus (bud), "Leptoceras" menziesii (bud),Eriochilus "dilatatus subsp. undulatus" (seed), E. "dilatatus subsp multiflorus" (seed), Monadenia bracteata (leaf).

On Saturday, before lunch we went to see if there were any early flowering Diuris at the Peninsular Road site referred to in my Field Trip Report, Bulletin Nov. 1991. This idea proved to be very successful and the following orchids were found: Caladenia "varians subsp. hiemalis" C. reptans, C. flava (bud), Pterostylis nana (seed), P. recurva, P. vittata, P. barbata, Cyrtostylis huegelii, Diuris longifolia, D. corymbosa, Thelymitra macrophylla (bud), Monadenia bracteata (leaf), "Burnettia nigricans."

When we felt it was time to retreat to Bridgetown for lunch we had found 8 species there that we had not found at that site before. After lunch we went to Hester Cascades Road to investigate one of our favourite sites from last October. This spot proved to be just as good as in September. It is now 2 years since it had a burn but excellent orchids were found. We managed to find the following species: Caladenia "varians subsp. hiemalis", C. magniclavata, C. nana, C. reptans, C. flava, C. macrostylis, Pterostylis dilatata, P. nana, P. vittata, "Burnettia nigricans" in flower! Cyrtostylis huegelii, "Leptoceras" menziesii, Eriochilus "dilatatus subsp. undulatus" (seed), E." dilatatus subsp. multiflorus" (leaf).

During one of the half hour breaks at the Moto Cross Des Nations on Sunday we decided to see if there were any orchids left in the bush around the Moto Cross track.

A surprise to us the following orchids: Pterostylis recurva, P. nana, P. vittata, Caladenia flava (leaf), Eriochilus "dilatatus subsp. multiflorus" (leaf), Thelymitra macrophylla (bud), T. crinita (leaf).

By the end of the trip we had found a good mixture of orchids (especially the Spider orchids) on what was supposed to be a Moto Cross weekend.

Ryan Phillips.

Dryandra Forest 25.10.92.

Kathy went on a quilting retreat all weekend so Ryan and I went bush and spent all Sunday in Dryandra Forest.

On the main track to the village we found many Elythranthera emarginata.
On a narrow track in an area which looks as though it is winter wet on the south east side of the main road we found many more of the same, Ryan found a Thelymitra benthamiana in full flower and a couple of Thelymitra macrophylla (b). The T. macrophylla(b) were also on the main road in the area.

In the higher rocky areas we also found Pterostylis sargentii which was just finished and numerous Caladenia "flava subsp. sylvestris" which had an extremely red dorsal sepal. There is clear evidence that much of this area is heavily populated by kangaroos and wallabies but not one tick between us all day!

During the day we also spotted a great array of birds, I stumbled over a sleeping wallaby (or similar marsupial) and we are still debating whether it or I jumped or moved faster.

Probably the highlight of the day was finding and adult and two young echidna and two numbats.

We were surprised to not find any other Spider orchids anywhere and would be pleased to hear from anyone who knows whether any can be found there.

Steve Phillips.

Augusta.. November 7 1992.

It was a rainy, blustery day when we set out for Augusta early on Saturday morning, November 7th. However, when we arrived at Doonbanks Caravan Park, though still windy, it wasn't as bad as we had anticipated. As we had to make a stop in town to buy camera batteries, we arrived at the meeting spot just before 12 noon; to be greeted with "we hope you bought your biro!" et... so here we are writing the report. There were four vehicles ready to go, and our first stop was the forest past the rubbish site. This area had been burnt last summer and some of the orchids we found were:- Thelymitra aff. macrophylla, T. benthamiana, Caladenia "flava subsp sylvestris", C. nana, Diuris emarginata, Prasophyllum regium and Pterostylis aff. turfosa. Our next stop was opposite Flinders Bay in the burnt area where we found Caladenia infundibularis just hanging on, a white Caladenia similar to C. "serotina", of which there were several plants, "Cyanicula" gertrudae, Thelymitra benthamiana, Microtis alba, Prasophyllum regium (s) and Elythranthera emarginata.

Heading back towards Augusta, we decided to investigate another burnt area on Caves Rd.

This turned out to be very interesting as we found several Caladenia which had affinities with C. infundibularis and C. "brownii" and C. ferruginea. I have come to the conclusion that most were hybrids because even with the BOOK we couldn't decide which were which. Other orchids there were C. "flava subsp. sylvestris", C.marginata, Elythranthera emarginata, E. brunonis, Diuris longifolia, Thelymitra macrophylla, T. aff. macrophylla and Microtis media, plus a very active tiger snake. As it was getting late in the afternoon, we returned to our respective lodgings for a well earned rest and evening meal.

Next morning everyone met at 8.30 am or so, and we began a leisurely trip back northwards. Our first stop was Cosy Corner, where Caladenia abbreviata is known to grow. As it turned out we were a couple of weeks too early, though we found lots of plants in bud. Also Caladenia latifolia in flower.

Our second stop was off the main road in mixed Karri/Jarrah forest, where lots and lots of Caladenia "attingens" were found growing, especially nice were the speckled ones! Also there were hundreds of C. "flava subsp. sylvestris", C. cairnsiana (s), C. "brownii", Cryptostylis ovata, "Burnettia nigricans", Pterostylis aff. nana, P. vittata (s), Microtis media, Eriochilus dilatatus (s) and some Corybas leaves.

Then we took a leisurely walk through an area to a sunken cave to have a look at the huge Thelymitra macrophylla growing there. We were warned to keep to the track, as it is easy to get lost, which we faithfully did, and we still ended up on a different track, however, as it was so pleasant there no-one minded one bit.

On the road to Gracetown, we made a special stop, during which we found Caladenia abbreviata in full flower, along with Caladenia "applanata", C. infundibularis, C. "attingens" and hybrids. It here that the ants found Derek in a very personal and painful way! He suffered immensely! Let this be a lesson to all orchidologists - look before you lie.

On the way home we stopped one more time, to check out Pterostylis aff. rufa at Yalgorup National Park. The plants were very hard find in the grassy scrub, but some were found and photographed. From there we left for home, and we would like to thank Chris and Marie for leading the trip, we thoroughly enjoyed it.

Ian and Joan Greeve.

Xmas Party at Walpole.

A very good night was had by all. The local members and friends turned on a terrific night highlighted by a hogget on a spit provided and cooked by local farmers, Elizabeth and Thomas. Salads and sweets were provided by the local members. Joff Start's depot took on a different look with the hurried installation of the toilet, basin and sink which had been on the "munyana" plan. The unloading area together with the trailer provided a large party area.

Nikki Start entertained us with a new poem knocked up at the party. The night was rounded off with some good slides taken on recent trips. The night was also a birthday celebration for Gerhart Brunnbauer.

Members who could not attend missed out on a good night. Many thanks to our Walpole Denmark members who looked after us so well.

Noel Clarke.

THE SEQUEL!!...BECAUSE YOU ASKED FOR IT!

<u>To Andrew and Noel.</u>

Congratulations Mr. Hoffman,
Terrific Andrew Brown!
The book is here, we all so cheer,
It's made it safe and sound.

However, there is one slight problem.
And it came as a big surprise.
That the book is not about orchids,
But of animals in disguise.

There's ants and bees and butterflies,
And spiders beyond compare.
With antelopes and donkeys,
Bunnies, rabbits and a hare.

There's foreigners like chameleons,
Zebras are here too.
With ferocious leopards and tigers.
It's becoming quite a zoo.

There's the microscopic midges,
Gnats and mosquitoes too.
Or the typical mythical dragon,
Of which there are a few.

There's birds and ducks and snails galore,
And frogs and snakes as well.
To top it off, there's a nanny goat
That even comes with a bell.

So don't tell me this book's about
The plants that you can find.
I know my facts, I've read the words,
And its of animals of every kind!

Nikki Start.

Named Orchid Hybrids of South West Australia.

Caladenia Hybrids

C." X cala"
= C.falcata X C.longicauda complex
C." X coactescens"
= C.crebra X C."longicauda subsp borealis"
C. X ericksoniae
= C."polychroma" X C.cairnsiana
C. X ericksoniae
= C."polychroma" X C."pachychila"
C. X lavandulacea
= C."polychroma" X C.douthchiae

C. "X resupina"
= C.multiclavia X C.filamentosa complex.
C. "X suffusa"
=C."hirta subsp rosea" X C.longicauda complex
C. X triangularis
= C.flava sp X C.longicauda complex
C. "X tryphera"
=C.sigmoidea X.C."microchila"
C. "X spectabilis"
C. "longicauda subsp borealis" X C."hoffmanii"

Other Genera Hybrids

"X Cyanthera glossodioides"
="Cyanicula" sericea X Elythranthera brunonis
X Drakodenia enigma
="Drakonorchis mesocera" X Caladenia longicauda sp.
X Drakodenia enigma
="Drakonorchis" barbarossa X Caladenia longicauda sp.
"X Drakodenia ornata"
="Drakonorchis drakeoides" X Caladenia "varians subsp varians".

Other Hybrids incorrectly named in W.A.

Thelymitra carnea
=T.flexuosa X. T.pauciflora
T. macmillanii
=T.antennifera X T. nuda complex.

Other known Caladenia Hybrids not presently named.

C. "longicauda subsp. borealis" X C. "lorea"
C. "longicauda subsp calcigena" X C. "arenicola"
C. "longicauda subsp calcigena" X C. "georgei"
C. "longicauda subsp crassa" X C. "decora"
C. longicauda subsp "longicauda" X C. latifolia
C. "longicauda subsp redacta" X C. "harringtoniae"
C. longicauda X C. "arenicola"
C. longicauda X C. pectinata
C. "longicauda subsp" eminens X C. uliginosa subsp "uliginosa".
C. macrostylis X C. pectinata
C. latifolia X C. C. flava sp
C. latifolia X C."gardneri"
C. flava sp x C. marginata
C. flava sp X C. nana subsp "nana"
C. "flava subsp maculata" X C. reptans
C. flava sp X C. reptans
C. roei X C. cristata
C. "serotina" X C. radiata (rare)
C. "varians subsp varians" X C. "footeana"
C."voigtii" X C. "microchila"

Noel Clarke.

LIBRARY REPORT.

It has been brought to my attention that several books have been borrowed from the library and not returned (some of these are overdue as much as three years). I would appreciate it if all books presently on loan be returned before the April Bulletin (around the second week in April... Ed.). Those members unable to bring them in or any country members please notify me by telephone. Books still outstanding will be printed in the April Bulletin.

All our Library books are kept at Kings Park Administration Centre and are readily available for loan after each meeting. We also have the Group Slide collection which will be available for viewing on request in the very near future.

A recent addition to our library is a book produced by A.N.O.S. Victorian Group Inc. entitled "Cultivation of Australian Native Orchids" 2nd ed., which I am sure will interest many of you. It will be available at the next meeting so see you there!

Ian Greeve

QUOTES FROM THE BUSH

Ron Foreman would like to know when is the club member who lost a can of coke in a bet with him, going to pay up??!! Eh Mr.Treasurer??

Who is the young red-head (affiliated with our group) who recently had to buy a map of Bunbury to find her way out of that town???

Rare Orchid Find.

We are delighted to report that Diuris punctata, a classified rare and threatened orchid, was found growing on a farm at Wooragee, Victoria, on a lightly grazed paddock. The estimated size of the new population is 4000 flowering plants. The farmer has promised to fence and selectively graze the paddock in the orchid's dormant period. We hope we hear more good news stories like this one.

FOR SALE.

ORCHIDS OF SOUTH WEST AUSTRALIA. 2ND ED.

Chris has ordered in a small quantity of these books for sale to our members. They are available, through Chris, at $50 each. At this stage postage costs are unknown but this will be added to the cost of the book if it has to be posted.

ORCHIDS OF WESTERN AUSTRALIA..2ND EDITION.

WANOSCG's second publication of the cultivation and natural history of WA native orchids is now available with 14 pages of COLOUR PHOTOGRAPHS.

THE BOOK IS PRICED AT...

$ 9.00 (plus $2.00 postage) for WANOSCG members

OR $12.00 (plus $2.00 postage) for non-members.

THELYMITRA APICULATA BADGES

The badge features Thelymitra apiculata, a beautiful orchid, the status of which is not declared rare and endangered, but is under the scrutiny of CALM. The badges cost $4.00 (plus $1.00 postage and packaging).

Three quarters of the badges have been sold so far, so if you have not bought one yet, you are in danger of missing out.

5 IN 1 SURVIVAL AID

In order to encourage safety awareness in the bush on field trips, the group has purchased 50 "Survival Aids".

These are basically a whistle and compass combination but also incorporate a small signalling mirror, a fire starter flint, a nylon lanyard (to hang it around your neck) and a water proof match container. In addition, the compass has a luminous dial.

The survival aid has been purchased below normal retail prices and is being offered to group members at cost for $6.00 (plus $2.00 for postage).

I recommend members carry a whistle and compass combination of some sort. Even our most experienced members have been lost at some time in the bush.

PAT DUNDAS NATIVE ORCHID CARDS

Packs of 6 blank cards and envelopes featuring different W.A. native orchids by Pat Dundas are available from WANOSCG.

These are excellent value at a price of $8.00. They would make a superb gift or would be a perfect way to contact friends or relatives while highlighting the colour and beauty of our W.A. orchids.

WANOSCG STICKERS

Don't get lost on the next field trip (or if you do, take somebody else with you).Purchase a WANOSCG sticker for your car window. The stickers are 150 mm square, green on white, making them visible from quite a distance. They are priced at $0.50.

WANOSCG NAME BADGES

Be proud of yourself. Let everybody at group meetings and field trips know who you are. Buy a WANOSCG name badge embossed with your name and wear it with pride. These are available for $7.00. (cost price).

All of the above items can be purchased from Chris French at any meeting of the group, or can be ordered from Chris by mail (address is on the inside cover). Please add $2.00 for postage and packaging for each item.

CALADENIA AND NATURAL HYBRIDISATION.

The following article was submitted to *The Orchidian* for publication by Ron Heberle in 1981. After Ron provided evidence for his arguments, (in the form of slides, which highlighted both the presumed parents and hybrid offspring), the article was published in June 1982.

Ron and *The Orchidian* have kindly allowed us to reproduce the article here.

We hope you find it both interesting and enjoyable. We are sure it is topical!

CALADENIA IN WESTERN AUSTRALIA AND NATURAL HYBRIDISATION

by R. L. Heberle

The genus *Caladenia* in Western Australia has been widely and lavishly distributed over about 34,000,000 hectares within a rough triangle bounded by Shark Bay in the north, Augusta in the south-west corner and Israelite Bay in the south-east. Within this vast area grow the 40 species and 10 varieties that have been named and described.

The genus reflects a tremendous diversifiaction and a high degree of specialisation and adaptability and flourishes over a wide variation of geographic, climatic and ever-changing habitats. *Caladenia* plants seem equally at home in the high rainfall areas in the south-west corner and in the drier north and east and in the arid inland goldfields up to 600km from the coast.

My personal interest in terrestrial orchids comes from many years of exhibition and display to the public, visiting the same colonies at the same time each year and being constantly confronted with problems of identification. It seems to me that many of the problem forms of *Caladenia* are more likely to be hybrids than un-named species.

Five years ago I decided to make a project of attempting to isolate these "presumed" hybrids and match them to parent combinations, to record relevant information, to press and photograph the specimens in the hope that this work might assist in the future naming of new species. Although I had previously seen "presumed" hybrids as far north as the Murchison River, eastward to the east of Esperance and inland to Coolgardie, I decided to concentrate this work in the extreme south-west corner with the expectation that hybridisation would be more abundant in the integrated colonies there than elsewhere. As I live in Albany I could visit these colonies throughout the flowering periods.

So far, the most productive colonies have been those that grow adjacent to rivers, streams, lakes and swamps — and on, and around, granite rocks where the insects are very active. I hope to study the specific fertilising insects in the future and possibly other species isolating mechanisms which may have broken down to produce hybrid swarms.

The project was undertaken with the expectation that hybrid progeny would generally exhibit prominent structural features of one parent rather than the other and that possibly the pod-parent or the pollen-parent would be dominant, but this is not always the case. Apparent indications that the cross between pod-parent and pollen-parent (A x B) and the reverse (B x A) produce two distinct and different hybrids may well be evidence merely that one parent is more dominant than the other, or that some back-crossing has occurred, or that the hybrid has "selfed" and thrown to one parent or the other. These are distinct possibilities in hybrid "swarms". However, in the cross between *C. multiclavia* and *C. filamentosa var. filifera* (fig. 1) each flower has dominant structural features from each of the parents!

Other pointers noted are that uneven and irregular calli rows, wavy and angular lateral sepals can assist in identifying hybrids. I also note that if either of the parents is a fire-stimulated flowerer the hybrids will be likewise.

The presence of a number of un-named species together with the so-called "complexes" such as that of *patersonii - huegelii - filamentosa* and *doutchae* (which contains numerous variations, races and possible hybrids) further complicates a complex issue. Nevertheless I have enjoyed some successes as preliminary findings suggest that apart from the isolation of early and late flowering species, most caladenias hybridise naturally. Some are capable of crossing with a number of others, this being demonstrated by *Caladenia flava - latifolia - reptans - marginata - filamentosa - doutchae - patersonii - huegelii - radiata - lobata* and *cairnsiana.*

At this early stage I note that certain hybrids have established stabilised colonies in the areas east of Esperance, Jerramongup and Manjimup, these being the crosses

(continued . . . page 80)

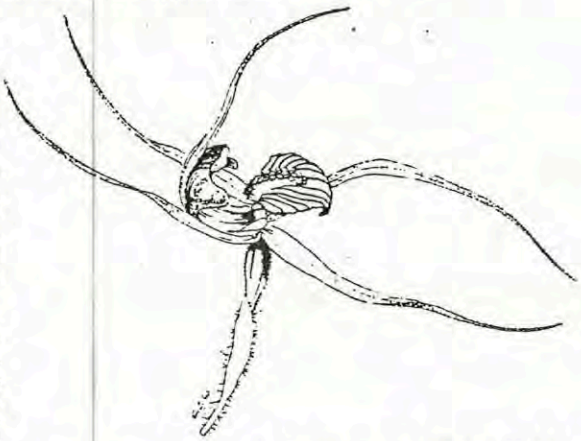


Figure 1. *C. multiclavia x C. filamentosa var. filifera.* This hybrid is rare even though both parents are plentiful. The photograph (Fig. 7) shows how closely the hybrid reflects the united tepals and the labellum of *C. multiclavia*; while the other parent is seen in the calli and the tepal filaments. Colouring is a beautiful shade of pink diffused through orange to red — from both parents.

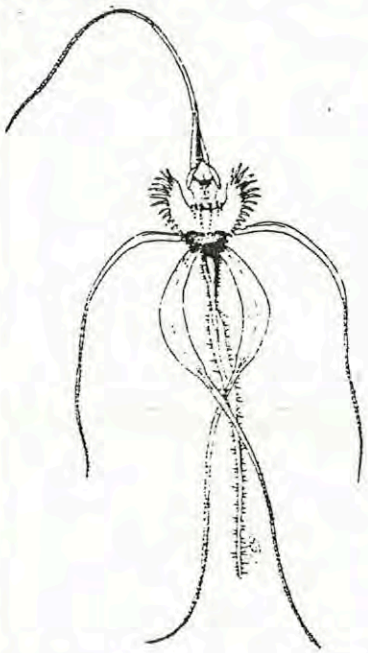


Figure 2. *C. patersonii x C. dilatata var. falcata.* A common and widely distributed hybrid — stabilised into colonies in some areas. *Var. falcata* shows little variation over a wide range but *C. patersonii* is very variable; hence the hybrid varies considerably. Colour is whitish to cream (rarely pale green). Tepals follow the structure of *C. patersonii.* The dilated labellum fringe and purple tip favour the other parent. This hybrid occurs also in most eastern States.

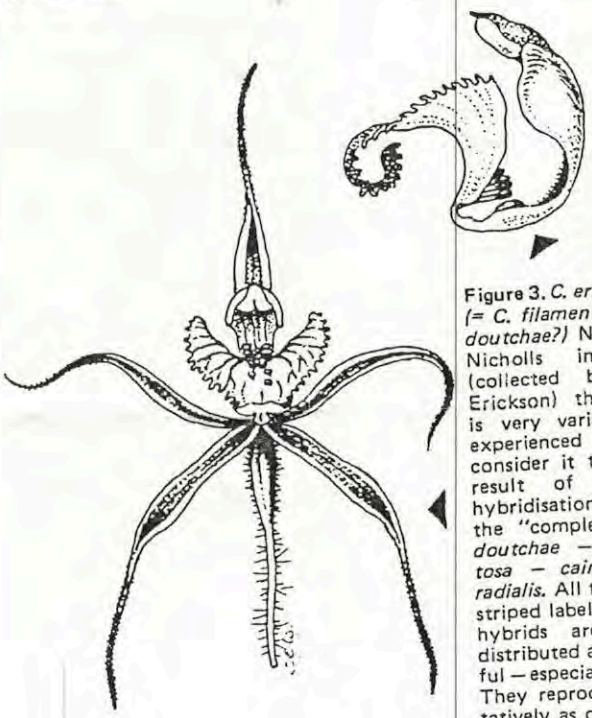
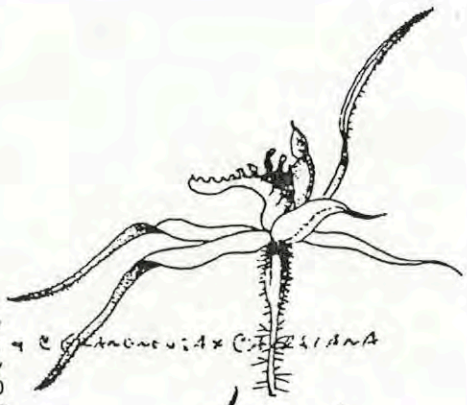


Figure 3. *C. ericksonae (= C. filamentosa x C. doutchae?)* Named by Nicholls in 1950 (collected by Rica Erickson) this taxon is very variable but experienced amateurs consider it to be the result of multiple hybridisation between the "complexes": *C. doutchae — filamentosa — cairnsiana — radialis.* All these have striped labellums. The hybrids are widely distributed and plentiful — especially inland. They reproduce vegetatively as do most of the parents.



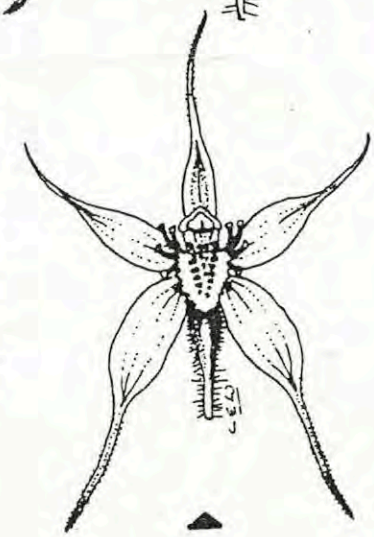


Figure 4. *C. triangularis* (= *C. patersonii x flava*). Named by R.S. Rogers (1927). Collected by Colonel Goadby from Highbury near Narrogin (1924). Structural features of both parents can be seen by comparing the photographs (Figs. 6 and 8). The triangular labellum comes from *C. flava.* Colour is pale yellow to cream with the red markings of *C. flava.* The hybrid is widely distributed but never abundant. It reproduces vegetatively.

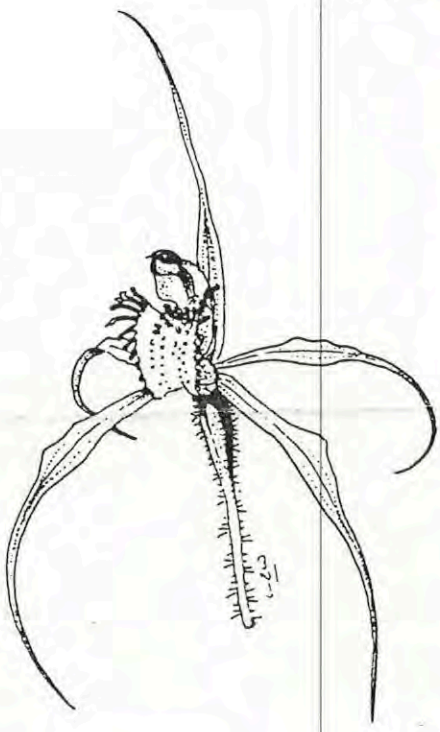


Figure 5. *C. patersonii x C. barbarossa* Both parents are widely distributed and abundant throughout the "South-west Corner". The hybrids show great variation — as does *C. patersonii* — but this is not so with *C. barbarossa* (apart from a pure green form). The name *barbarossa* (= "red-beard") refers to the dense mat of red hairs on the labellum. Its colour is pale green to yellowish, the purple stalked calli rising from the base of the labellum and at an angle on each side with reddish hairs on the tip. Tepals are short and angular. This is reflected in the (quite common) hybrids.

All drawings by C. Woolcock.

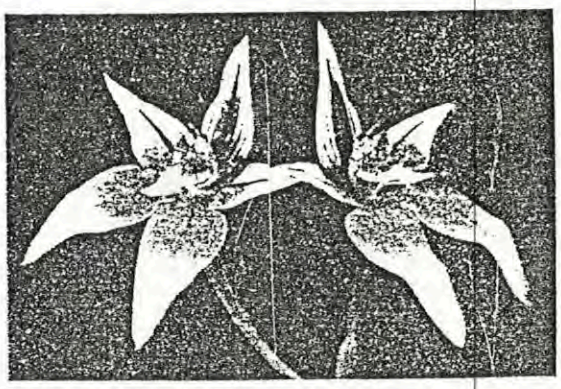


Figure 6. *Caladenia flava* R. Br is one of W.A.'s most common orchids. Handsome pale to vivid yellow with dorsal sepal and petals streaked or spotted with crimson. The stem, up to 30cm high, may carry up to five flowers. Variation is considerable in both colour and form. From Geraldton north the dorsal sepal is pink spotted. To the south and east most have red to crimson marks. There are pure white specimens with pink striped dorsal sepals; and white tipped segments diffusing into yellow are common in some southern areas. The hybrids of *C. flava* all exhibit the distinctive labellum fringe (see Fig. 4). This species was named by Robert Brown (1810) from a collection by Archibald Menzies near Frenchman's Bay, King George's Sound, Albany. (Menzies was surgeon-botanist on the Vancouver expedition that annexed the west coast for England in 1791.)

Figure 7. *C. multiclavia* Reichb.f. The dorsal sepal and petals are united almost to the tips. Colour is greenish yellow streaked with red. The labellum, striped with yellow and dark red bands, is the focal point. Being rhomboid in shape and very pendulous the calli are dark red and clubbed (multiclavate). The tepals are on a horizontal plane with the column cradled by the united segments. Once common between Pingelly and Katanning, it is still abundant between Borden and Ravensthorpe and there are outlying colonies as far north as Narembeen. Little variation has been observed except for a pale green form (varying in colour only). It seldom exceeds 20 cm in height and is mostly one-flowered. Plants reproduce vegetatively as well as from seed.

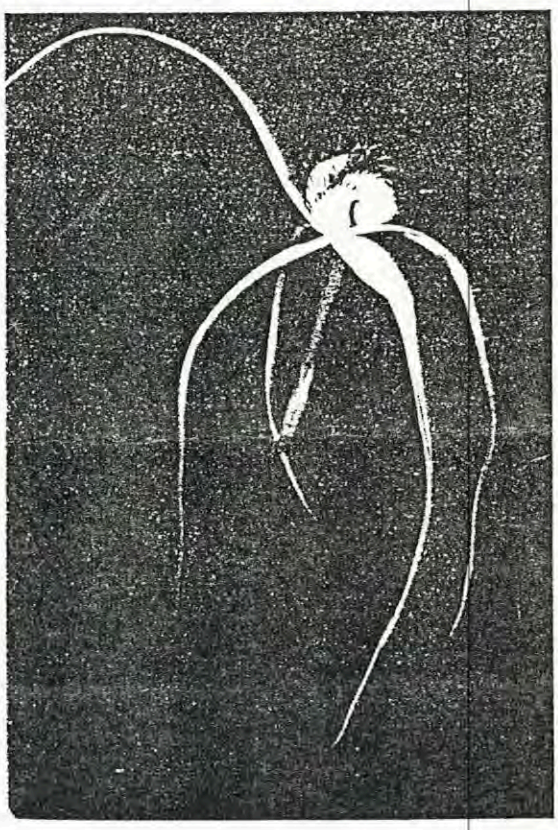


Figure 8. *C. patersonii* R. Br. *var. longicauda* (Lindl.) R.S. Rogers. This is W.A.'s most spectacular and robust terrestrial orchid often exceeding one metre in height and bearing 1-5 flowers 35 cm across the sepals. Colour: pure white to pale yellow with a long pink to red combed fringe to the labellum and golf-stick-like calli of similar colouring in 4 rows (rarely 6). See Figure 9 (close up). The dilated tepals terminate in long caudate dusky tips covered in fine hairs. Reproduction is vegetative and by seed. Hybridises readily with a number of other species.

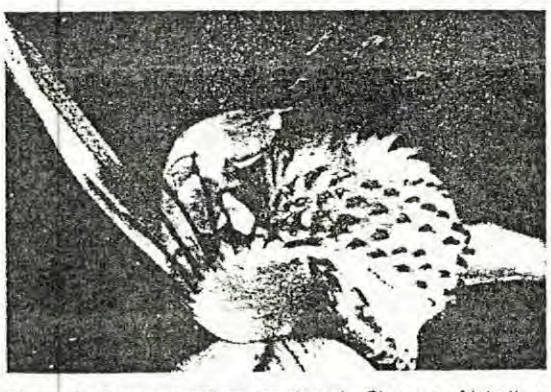
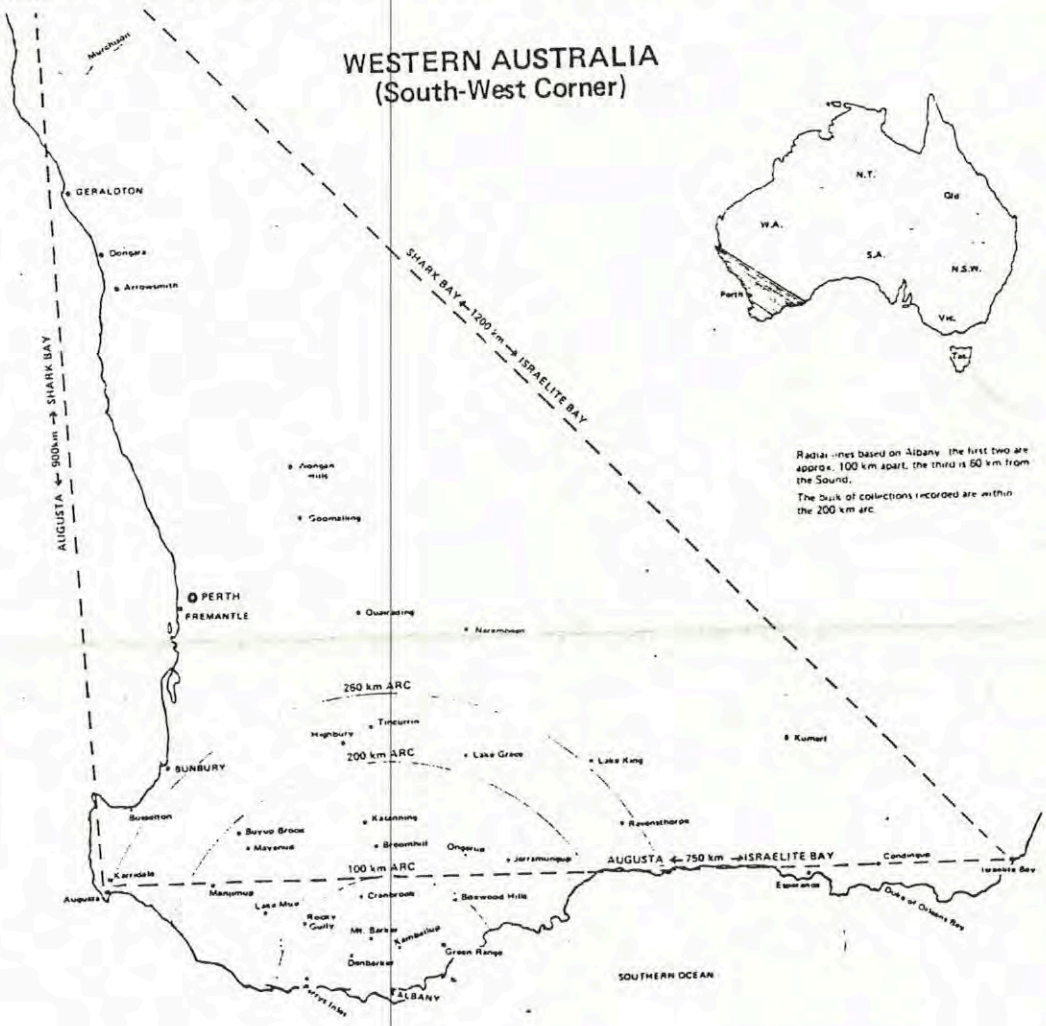


Figure 9. *C. patersonii var. longicauda.* Close up of labellum fringe, calli and column. There are two glistening yellow glands at the base.

longiclavata var. *longiclavata*	x	*longiclavata* var. *rhomboidiformis*	Karridale	Sept. – Oct.
longiclavata var. *magniclavata*		(no hybrids recorded)		" "
marginata	x	*nana*	Rocky Gully – Parry's Inlet	" "
"	x	*reptans*	Mayanup	" "
macrostylis		(no hybrids recorded)		" "
menziesii		(no hybrids recorded)		Sept. – Oct.
patersonii	x	*flava*	(= *C. triangularis* possible hybrid)	Oct. – Nov.
var. *longicauda*	x	un-named (2)	Rocky Gully – Frankland	Sept. – Oct.
plicata		(no hybrids recorded)		Aug. – Sept.
radialis	x	*roei*	Lake Grace	Oct. – Nov.
radiata	x	un-named (2)	Boyup Brook – Mayanup	" "
reptans		(see above – *flava, latifolia* and *marginata*)		Aug. – Sept.
roei	x	*filamentosa* var. *denticulata*	Tincurrin	" "
saccharata		(see *deformis* above)		" "
sericea		(no hybrids recorded)		
sigmoidea		(see above *filamentosa* var. *tentaculata*)		" "
* *triangularis*		*Possible hybrid *flava* x *patersonii*		

SUMMARY OF TABLE

Interim and preliminary figures suggest that out of the 40 *Caladenia* species named at least 26 hybridise and out of the 10 varieties seven do likewise. There remain at least 19 collections of possible hybrids where further research is required to determine parentage. The collections have been made from approximately 180 locations. The bulk of collections fall within the 200 km radius from Albany as shown on the map.



between *C. flava* and *C. latifolia* and between *C. patersonii* and *C. dilatata var. falcata* (fig. 2). The project suggests that *C. ericksonae* (fig. 3) and *C. triangularis* (fig. 4) are in fact hybrids.

This report is tentative and preliminary and is made in the hope that other enthusiasts may be influenced to do similar work in other areas. A combined effort should eventually bring into clearer focus the natural hybridisation of *Caladenia* in Western Australia. Meanwhile the author invites constructive criticism of this paper. A beginning must be made — especially as the W.A. Government plans to release a further 3,000,000 hectares of virgin land for agricultural development during the next ten years.

The following table is offered as a basis:

NATURAL HYBRIDISATION IN *CALADENIA* IN SOUTH WESTERN AUSTRALIA

Parent Species			Location of Collections	Flowering Months
C. aphylla		(no hybrids recorded)		Mar. — April
barbarossa	x	*patersonii*	Boyup brook — Kamballup — Boxwood Hills Ongerup — Jerramungup — Gairdner River	Sept. — Oct.
bryceana		(no hybrids recorded)		Aug. — Sept.
caerulea	x	*saccharata*	Boxwood Hills	Aug. — Sept.
cairnsiana	x	*filamentosa var. denticulata*	Albany — Kamballup — Green Range Boxwood Hills — Pallinup River — Cranbrook	Aug. — Sept.
cairnsiana	x	*doutchae*	Lake Grace — Jerramungup — Green Range Pallinup River — Boxwood Hills	Sept. — Oct.
corynephora		(no hybrids recorded)		Dec. — Jan.
crebra	x	*patersonii*	Arrowsmith — Dongara	Aug. — Sept.
cristata	x	*filamentosa var. tentaculata*	Kumarl	" "
cristata	x	*doutchae*	Lake King	" "
deformis	x	*saccharata*	Lake King	" "
dilatata var. falcata	x	*lobata*	Rocky Gully	Sept. — Oct.
" "	x	*patersonii*	Pallinup River — Gairdner River — Jerramungup Ongerup — Cranbrook — Frankland — Gordon River	" "
discoidea		(no hybrids recorded)		
doutchae	x	*filamentosa var. denticulata*	Boxwood Hills — Green Range	Aug. — Sept.
doutchae	x	*radialis*	Lake Grace	" "
"	x	*cairnsiana*	Lake Grace — Jerramungup — Green Range Pallinup River — Boxwood Hills	" "
"	x	*roei*	Tincurrin	" "
drummondii		(no hybrids recorded)		June — July
* *ericksonae*		(*possible hybrids between *doutchae, radialis, cairnsiana, filamentosa*)		Aug. — Sept.
filamentosa var. denticulata	x	*radialis*	Lake Grace	" "
" "	x	*cristata*	Lake King	" "
var. tentaculata	x	*sigmoidea*	Lake King	" "
var. filifera	x	*multiclavia*	Jerramungup	" "
var. dorrinii		(no hybrids recorded)		Sept. — Oct.
var. caesarea	x	*var. filifera*	Frankland	" "
flava	x	*reptans*	Highbury — Broom Hills — Manjimup — Mt Barker Murchison River — Albany	" "
"	x	*marginata*	Denbarker — Rocky Gully — Lake Muir — Mayanup	" "
"	x	*latifolia*	Rocky Gully — Manjimup — Broom Hills — Albany Condingup — Duke of Orleans Bay — Lake Muir	Aug/Sept/Oct
"	x	*nana*	Lake Muir — Rocky Gully — Parry's Inlet	Sept. — Oct.
gemmata	x	"?"	Goomalling — Quairading	" "
gemmata var. lutea		(no hybrids recorded)		" "
graminifolia		(no hybrids recorded)		Aug. — Sept.
hirta	x	*patersonii*	Green Range — Jerramungup — Cranbrook — Wongan Hills	Sept. — Oct.
hirta	x	*filamentosa var. denticulata*	Cranbrook — Amelup — Ongerup Frankland — Mayanup — Rocky Gully	Sept. — Oct. Oct. — Nov.
huegelii	x	*lobata*	Numerous variations both parents variable.	" "
"	x	*patersonii var. longicauda*	20+ locations from Albany to Boyup Brook	" "
"	x	*radiata*	Lake Muir — Rocky Gully — Manjimup	" "
"	x	un-named (3)	Boyup Brook — Rocky Gully — Frankland	
integra		(no hybrids recorded)		
latifolia	x	*reptans*	Rocky Gully — Lake Muir — Manjimup — Mayanup	Sept. — Oct.
lavandulacea		(no hybrids recorded)	(possibly a *roei* hybrid)	Sept.
lobata	x	*patersonii var. longicauda*	Frankland	Oct. — Nov.
"	x	*radiata*	Rocky Gully	" "
"	x	un-named (2)	Rocky Gully — Frankland	" "
"	x	*barbarossa*	Rocky Gully	

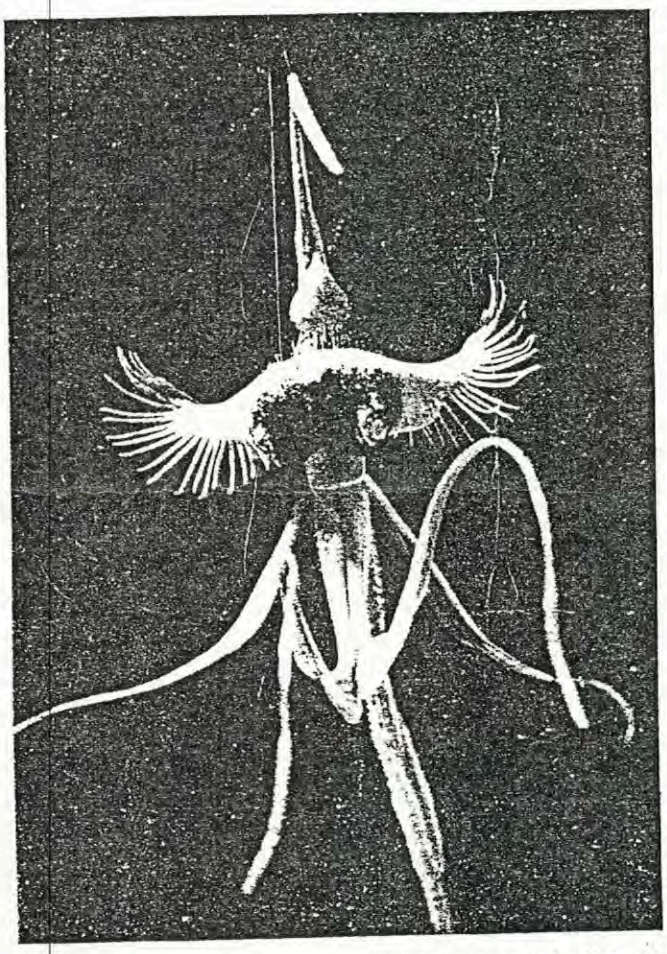


Figure 10. *C. lobata* Fitzg. Considered the "most magnificent caladenia in the West" this species was named (1882) by R.D. FitzGerald from specimens he collected at the Upper Hay River near Mt Barker about 50 km north of Albany. It bears 1-2 flowers on a long stem to 80 cm. The labellum is wide (to 3 cm) and elegantly fringed. Colour is pale green fading to yellow as it ages. The deeply dimpled tip is purple to maroon; the calli purple to dark brown and crowded from the base to the bend. The column has triangular lobes located halfway (called "very peculiar orbicular lobes" by FitzGerald; hence the name of the species). Note that the falcate lateral sepals and the incurved dorsal are delicately clubbed while the petals taper to fine points. The labellum is pendulous, vibrating up and down in every breeze, constantly attracting attention. This species shows little variation except for a pure yellow form, is distributed from Bunbury to the Sterling Ranges, is never abundant except in isolated localities near streams. Some of its hybrids with other species are magnificent.

ACKNOWLEDGEMENTS

Acknowledgements are due to the W.A. Herbarium and to Mr A.S. George for the use of his checklist of the Orchidaceae of W.A. (*Nuytsia* Vol. 1, No. 2, 1971). My particular thanks go to Mr Herb Foote for assistance with photographs and specimens, Messrs C. Sumner and E. Chapman for their field work and specimens; my wife Pauline and daughter Maxine for their support in field work. I am indebted to Steve Clemesha for advice by correspondence; to Collin Woolcock for drawings (figs 1-5) done especially for this article; to Mr N. Butler for photographs (figs 6-10); and to the Editor for his advice, encouragement and assistance in preparing this article for publication.

78 Campbell Road,
Albany, W.A. 6330

8 March, 1982

All photographs by N. Butler.

MINUTES OF W.A.N.O.S.C.G. GENERAL MEETING--18 NOVEMBER 1992.

PRESENT AND APOLOGIES : As per the Attendance Book.

VISITORS : We were pleased to welcome Jenny Budas.

MINUTES : An amendment was made to the minutes of 21st October as published in the Bulletin.
Moved Tiong/Long "that the minutes, as amended, be accepted as read." Carried.

BUSINESS ARISING : Nil.

CORRESPONDENCE :Inward. As Tabled.
Outward. As Tabled.
Moved Clarke/Swarts "that Inward Correspondence be accepted and Outward Correspondence be ratified." Carried.

TREASURER'S REPORT : As circulated.
Moved Parker/Evans "that the Treasurer's Report be accepted. Carried.

FIELD TRIPS : As Bulletin.

PLANT TABLE : Nil.

GENERAL BUSINESS

Support is urgently needed for the Tuber Bank if it is to function.

Supper was provided by Joan Biddle, and the raffle, which was provided by Nancy Clarke, was won by Christine Lock.

Members' slides were shown to round off the last General Meeting for 1992

The Constitution and audit was raised by G. Reed and the matter was discussed.

The next General meeting will be held on March 17 1993 at 8 pm.

Meeting closed at 9.34 pm.

SUPPER ROSTER		RAFFLE ROSTER	
March	Joan Greeve	March	Peter Gee
April	Cheryl Gee	April	Minna George
May	Volunteer Please	May	Volunteer Please

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