



BULLETIN

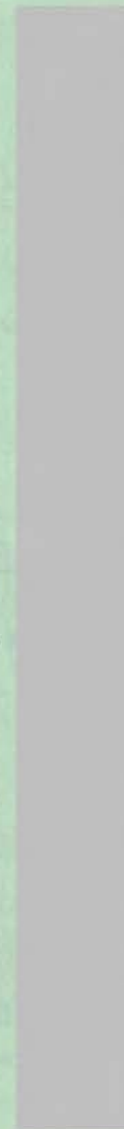
OF THE

WESTERN AUSTRALIAN NATIVE ORCHID
STUDY AND CONSERVATION GROUP
(INC)

June 1994

OFFICE BEARERSPHONE

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COMMITTEE	Bill Burton [REDACTED]
	Jean Long [REDACTED]
	Joni Eaton [REDACTED]
	John Arends [REDACTED]

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 conducive 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 PO Box 323
OF GROUP Victoria Park 6100



NEXT COMMITTEE MEETING -
Wednesday, June 15, 1994 at 7.00 pm,
Kings Park Board Administration

Centre.



NEXT GENERAL MEETING -
Wednesday, June 15, 1994 at 8.00 pm,
Kings Park Board Administration

Centre.

TOPIC FOR GENERAL MEETING

Dr Stephen Hopper will be giving us a talk entitled
"What is a Species?".



BULLETIN CONTRIBUTIONS

Contributions are needed for every
edition of the Bulletin. Articles should be sent to
Chris French [redacted]

The article submission deadline for the next issue
of the Bulletin is July 1, 1994.

Please send in anything remotely newsworthy
which relates to our group, to our members (ie,
birthdays, special occasions, pen portraits, etc),
grower's tips, rescue digs, field trip reports, native
orchids and conservation activities. Anything
(almost!) will be published, provided it is of
interest to our group (or should that be read "of
interest to your Editor"?).



ANNUAL GROUP MEMBERSHIP FEES

1994 Membership Fees are now due!

The group membership fees for 1994 as follows:

Single Membership	\$20.00 per annum.
Family Membership	\$20.00 per annum.
Junior Membership	\$ 2.00 per annum.

1994 PHOTOGRAPHIC COMPETITION OUTSTANDING SLIDES

Further to the recent photographic
competition. I would like to advise that
I still have some entrants' slides in my possession.



If the following members could please contact me
during working hours on [redacted], I should like to
make arrangements to return them as soon as
possible.

Dave Parker
Noel Hoffman
Gerhard Suaeracker
Brian Evans
David Lawson

Nye Evans



FIELD TRIPS



As discussed last month, we
need new locations to visit. We all have
locations close to us, or places that we know of that
have good populations of orchids that we visit on
our own. If you have an area like this that you
know of, either in the metro area or in the country,
that you consider is worth a visit from the club,
and that you would like to lead the group to, then
please let John Arends know.

We need to know where the area is, a rough idea of
the orchids that grow there, the best time to visit
the area and the dates that you could lead the trip.

Help us to help you make orchid hunting more
exciting. The more new locations that we visit, the
more new orchids we are likely to find.

The quicker you get the information to John, the
quicker we can organise your next trip.

Please send the details of your proposed trip to

John Arends
[redacted]

or give the information to John at any club
meeting.

FORTHCOMING FIELD TRIPS

You will note in the minutes of the last general
meeting that a Field Trip has been planned for
Saturday, July 7, going to Whiteman Park. This trip
will be held in conjunction with the Wildflower
Society, and is being arranged by Dave Bright.

At the time of printing the Bulletin, I had not
received any other details. If you wish to go along
on this trip, please contact Dave Bright [redacted]
[redacted] for details of meeting place and time.

The following Field trips are proposals at this stage. Further details will be included in future Bulletins when the trips are confirmed.

August 6 & 7 -- Walpole Area to look for *Eriochilus scaber* "subsp. orbifolia"

October 15 & 16 -- Scott River to look at later flowering *Caladenia*.

October 22 & 23 -- Walpole Area to look for different/new *Pterostylis* aff. *turfosa* taxa.



'T'-SHIRTS AND WINDCHEATERS

The prices for this year's supply of garments printed with the group's logo were included in last month's Bulletin. Orders need to be placed promptly as we need a minimum of 20 garments before purchasing and printing can be organised.

The logo is 8.5 cm in diameter and is positioned at the left front unless you specify otherwise. You may also have the logo printed on your own garments, provided that the colour is suitable for white ink. Used garments will be printed at \$4.00 per print but the group will not accept any responsibility for poor prints on used garments because the surface texture may have deteriorated due to washing, preventing satisfactory acceptance of the white ink.

Please place your orders with Bill Burton at the next meeting or by phone or mail to :-



We need to know :-

Garment Style
Size (Adult and Child)
Quantity Required
Colour
If not standard, location and number of prints on garment

If you are not collecting the garments personally, then please also include your mailing address and cheque (payable to the group) which includes postage and packaging charges as detailed in the last Bulletin.

If you have lost or misplaced last month's Bulletin, then please contact Bill as above



FIELD TRIP REPORTS

Please don't forget to send in reports of all your orchid hunting field trips.

We want to hear all about the trips that group members are making, not just the official field trips. The reports are a very useful tool for other members to use to plan future field trips and for you to report on your discoveries.

Field Trip reports don't have to be long and witty, so don't feel daunted. A brief description of locations visited and the orchids found is all that you need to supply. Of course, long entertaining stories will also be reproduced.



MAY GUEST SPEAKER RON HEBERLE

Ron Heberle was Guest Speaker at the May General Meeting and his topic was *Caladenia Species and Their Presumed Hybrids -- A Selection*. As usual, Ron's talk was lively, entertaining and spiced with a little controversy and a lot of food for thought. Ron presented some thought provoking arguments and illustrated them with a collection of high quality slides. Unfortunately, we were unable to record all of Ron's talk as the tape ran out before he finished, however we can present a good deal of it. I hope Ron will accept my apologies for being unable to reproduce his talk in entirety, and I hope this has not detracted from his overall message.

CALADENIA SPECIES AND THEIR PRESUMED HYBRIDS -- A SELECTION

Ron Heberle

Good evening fellow members.

I reached the age of discretion last December (and it takes a long while these days). I have a ten year plan. I am going to endeavour to reach the next ten years.

If I can learn as much in the next ten years as I have learnt in the last ten years, I will be very, very pleased, and I can see no reason why I shouldn't. The learning process with orchids is a continuing thing from when you start to when you finish, when you go underground. There is no one who is a full bottle. We have a few people who think they are, but they are not. No one can say that "so and so, so and so, so and so" and that there is no argument.

What we need to be getting involved in is debating the decisions made by these people and come up with a consensus within our own group. I have been involved with 17 different professionals in the last 25 years. Everyone of them sought my assistance. I didn't approach anyone. I didn't offer to do anything but they all approached me for some help in various research programs that they were proposing to do or were involved in. I have always accepted the opportunity, in the hope that I would get something out of it myself. I was prepared to give these people what they wanted, what I could give them, what was available or whatever, but I hoped I could get something out of it myself.

Unfortunately the professional sector doesn't see it that way. Many of them believe in taking all and giving nothing. Although, it takes you a few years to find out those sort of people. In my case, I withdraw my support. The net result is that over that 25 years some people have dropped out because they have achieved what they wanted to, some of them are still going, but to a lot of them I simply said "sorry, I've got other projects of my own and I am too busy".

I am just mentioning this because I don't think that the professional sector in Australia on orchids has achieved anything like what they should have. Unfortunately we are the meat in the sandwich, the people in between and we tend to hang on to every breath and accept everything they say and then try and fit it in with what we see and we sort of know, but we can't do it, we just can't do it. If people said "we have only known them (the orchids, that is) to do this and we have only known them to flower in this period" and if they weren't definite, well then maybe it would be acceptable. But they don't, they make definite statements and I would suggest, having had this sort of experience, that you all should beware of anyone who makes a definite statement about orchids.

Orchids are very clever plants, very clever plants indeed! They have been around for a long, long while and they are still going strong. All over the world, people like us are still trying to learn something about them.

That's just a brief introduction. Now I want to get on to my program tonight. Most of you would be aware that I had a paper on the *Caladenia* Hybrids published in the *Bulletin* a couple of years ago. It was something that I wrote after many years of research and it was published in 1982. In fact I had finished all of the research in 1979, but I had a lot of problems in getting it published.

I wouldn't have published it for some years later, but I had a trip over east and I met a few people and I showed them a few of these presumed hybrid slides. Some of them were big names in the Australian Orchidaceae world and they suggested that I should publish what I knew then and then follow it up ten years later with another paper, instead of hanging off for the big killing like Stephen Hopper and Andrew Brown have done.

It would have been far better if they had published ten or twelve orchids at a time as they went along and we would of had something. We still haven't got anything and there have been noises being made about this Taxonomy since about 1979.

We still haven't seen it yet. We have seen illegitimate publication of some of them in the *BOOK*, but that has no standing in the orchid world. Until these papers are validly published in a recognised orchid journal and the manuscript meets the criteria which is laid down by the International Bureau of Orchid Nomenclature, it is not valid.

Although you people have been using all these names, it is quite unethical to do that. Not only unethical for you, but also unethical for the professionals and it was also unethical for those professionals to have prematurely released all that.

I am sorry they are not here tonight, it would not have stopped me from saying what I have said. They know my opinion. I've given it to all of them. But that doesn't deter people. Very ambitious people tend to just gloss over and bend the rules to suit themselves.

I had a trip east last year and everywhere I went people were saying "what a shocking thing it was that all these orchids have not been validly published". What could I say? I just had to agree with them. I have people to whom I correspond with overseas in America, England and Europe and the book has been sold in all those countries. People have bought it everywhere and when they have found out that it was invalid, they were appalled. It has never happened before, never happened before.

I don't want to dwell on that. I will just get on with the program tonight.

So if you have read that paper and of course I have had another 13 years of research since that time. As I mentioned earlier I am learning more every 10 years than I did in my previous 10. So I know a little more about *Caladenia*'s than I did then.

It is a highly complex field. The complexity cannot be overstressed and it is impossible to make a definite statement about most of them. That is why they are called putative hybrids, which means presumed and although there is a lot of talk these days about synthesising them, that is cross pollinating by hand, collecting seeds, flasking them and then growing them on to flowering stage, this is not happening! It has been talked about, but it is not happening.

I spent some time today with Harry Lodge who is a long standing friend, we went to school together, and he was mentioning that epiphytes were being crossed, the seeds are being flasked and what do they get? They get a flask full of all different looking orchids from the same pod when they have been crossed. I mean that is transferring the pollen from the pollinia to the stigma on the parent plant. You would expect that it would produce something similar to the parents but it doesn't.

I haven't tried any of this but last year we had a visit from Warren Stoutamire who some of you would have heard of. He is an American biologist and he is the chap who probably made the first break through, or one of the first, in pseudo-copulation of orchids and the relationship between orchids and insects where pollination is achieved. In the pseudo-copulation of course, the orchids are very cunning, mimicking a female, or they give off a pheromone, a gaseous vapour which is similar to that of the female insect when she is in season. The male insects are tricked into mistaking the orchid for the female and they attempt to mate with the orchid and they cross-pollinate them as they go from plant to plant.

Warren Stoutamire did a lot of work and has published quite a few papers on this. When he was over here I asked him if he would object if I made those papers available for publication in our Bulletin but he said "I would prefer you didn't" because he was going to have to re-write them because he has had to change all his ideas. The way he wrote them about 10 - 15 years ago is not quite right, so he doesn't want them reprinted. When he does re-publish he will let me have the papers and I will make them available to our editor.

It is a field that is a bit deep for most of us, but it is something that we have to think about and we all have to look into because from the Bulletin I am conscious of the fact that group members are constantly finding orchids that are presumed to be hybrids. They are finding orchids that they cannot identify, they do not fit in anywhere and they probably are hybrids. I do not know.

I have a list of about 60 presumed hybrids that I have not got a clue about and I get more every year. I can presume one parent and the other parent is entirely obscure. I showed 50 of these to David Jones and Mark Clements when they were over here 2 years ago. They visited us in Albany for quite a few days and one night we spent 2 1/2 hours looking at them, and discussing them, and at the end of it I said "Well" and they shook their heads. They said "Most of these defy separation". In other words, as qualified, professional, experienced people, they didn't have a clue. We will see some of these tonight.

I want to begin with making reference to a paper that Stephen Hopper published in the Bulletin in 1979. It was an excellent paper. As with all of Stephen Hopper's work, it is very professional. It was a little bit deep for some of us, maybe most of us, but there was some quite good stuff that we could get a hand on in it. I want to refer to that before I go on with my program. I tried to see Stephen today but he is away somewhere and I couldn't catch up with him. I wanted to get his sanction to use the paper. Not that I have to do that, it is just common courtesy if you can. If you are going to refer to somebody's paper then you say "Do you mind?". Frankly, when anybody publishes a paper, that person is accountable and answerable for what is written. Whether they want it or not they have to expect that it will be debated. Some people will agree with it and some will disagree with it and this is a good thing because it makes you think and that is what I am going to try to do tonight.

I am trying to make you think about *Caladenia* hybrids specifically, mainly because there are more of them. There are more *Caladenia*'s than any other species, so there are more hybrids. I am only going to extract little snippets out of this paper. There are 4 pages of it.

It introduces the subject and mentions how difficult hybrids are to identify and he mentions that he did a thesis for his university doctorate where he compared hybrid kangaroo paws and 4 hybrid orchids. He said "*subsequently I have maintained interest in Caladenia hybrids and attempted to note details of any putative hybrids encountered in the field. I am keen of hearing about hybrids encountered by our group members. At some stage in the next two years I plan to write up observations on Western Australian Caladenia hybrids in a form suitable for publication in the Australian Journal of Botany.*"

I don't think that happened.

He said "natural hybridisation has fascinated botanists for 200 years. Earlier work on experimental hybridisation in Europe was instrumental in demonstrating that plants are sexual. It requires both pollen ovals to produce seed in most species. Over the past 50 years, resurgence of interest in natural hybridisation has occurred in concept of the development of powerful new insights in the process of evolution. It is now known that natural hybridisation may play a significant part in the evolution of species".

Well that sounds all right, but from my research, the amount of work that has been done in the last 50 years by professionals in natural hybridisation in *Caladenia* is minimal. I cannot find a paper and I am in contact with all these professionals and I have written to them and asked them can they name some people who have published these papers and what where the publications. I can't find any so I think he was a bit over enthusiastic there.

It goes on to say "Hybridisation can give rise to new species".

I agree with that. The process is much quicker. Evolution takes thousands of years, maybe hundreds of thousands. But in hybridisation it could happen in 100 years and we are increasingly finding stabilised colonies of hybrids that are apparently fertile and are breeding. They all look similar.

"Increasing the genetic variability of species and thereby allowing them to colonise new habitats or persist in changing environments"(well all orchids do that. It does not have to be a hybrid to do that.)"producing selected pressures that sharpen their reproductive barriers between plant species" and all orchids do that.

He lists a whole list of factors to aid in the identification of the hybrid and its parents. I'm not going to cover them all because I think some of them are highly speculative.

He listed "Occurrence in the wild of both suspect parents". Well of course! This is a matter of course.

"Occurrence in disturbed habitats". That was once considered to be the major influence, no longer at all! Certainly some hybrids do occur in disturbed habitats but the majority occur in the natural habitats.

"Occurrence of insect pollen vectors that move freely between plants of both suspected parents". Of course! It could not happen if they did not.

"Close agreement between the features of experimentally synthesised hybrids and putative natural hybrids". I don't know. I think there would be but it has not happened as far as I know. It certainly hasn't happened in Western Australia.

This is the clincher. "The greater variability in the progeny of natural hybrids than in those of even the parental species". The variability of the species is infinite. Not just with orchids but with everything. Its infinite! There is no end to it! To say it is more so with hybrids is probably correct.

So what I have been emphasising is the complexity, which has doubled up and tripled up and so on with hybrids, because they are far more virile. They have something which is called hybrid vigour which normal plants do not have to the same extent. He gives a list of about 15 species, which I'm not going to read out, which are presumed hybrids. I understand that most of these came from Andrew Brown. I'm disappointed that he is not here tonight.

Looking through them, there are two that I have not seen. That doesn't mean a thing! Just because I haven't seen something doesn't mean it doesn't exist! With many professionals, the reverse is the case. If they have not seen it, it does not exist. Even if you show them the pressing and a slide, it still does not exist until they see it! They say "I must see it!". Well I don't accept that philosophy and I hope you don't either.

There are a couple here, *Caladenia filamentosa* x *C. dorrienii*, I have not seen that, and *Caladenia patersonii* x *C. filamentosa*. I haven't seen one of those either.

There is one listed here, *Caladenia filamentosa* x *C. sigmoidea*, and that is quite a story. I gave a specimen of that cross to Noel Hoffman. Noel Hoffman showed it to Andrew Brown and Stephen Hopper. At the time they had not seen it, but one or other of them has written about this particular hybrid being rather prevalent. Well, that is okay, it may be, but I have not seen many of them.

It goes on to say "they do have intermediate morphology features". Of course! All orchids do!

"They do usually occur in mixed stands containing suspected parents." Of course! They have to!

"Some populations do show greater variability in morphological features." Of course! None of this is peculiar to the hybrid, this is normal!

"*Caladenia huegelii*" (which is now back to *C. pectinata* which it should never have left)"provides an interesting enigma amongst spider orchids. It has some features typical of bee pollinated species and some features which are typical of pseudo-copulating species." This comes down to the fact that Warren Stoutamire and other professionals have come to the conclusion that there was a specific pollinator for specific orchids. A one-to-one situation where just one specific insect pollinated one specific species.

This was accepted worldwide. They were very surprised when they had it put before them by a chap that lives in Albany, that he could produce hybrids between the so called one-to-one orchids and with the ordinary run of the mill orchids that were pollinated by non-specific insects.

Now that's accepted today. But we shouldn't accept everything that is put in front of us by professionals, we should question it, in the light of our own knowledge and the light of the collected knowledge that we have in a group like ours. Group members have an enormous amount of knowledge collectively. Some have more than others because they have been at it longer. Sum up all our knowledge and it will match any professional in Australia.

Well that information given there is hard to accept because those features are common to all orchids, not just hybrids.

I mentioned my own paper and I just want to read one or two passages from it.

"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 insects are very active."

"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 has proven not to be always the case. Apparent indications are that the cross between pod-parent and pollen-parent ($A \times B$) and the reverse ($B \times A$) produces 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"....."

I don't know why they call them "swarms" but that is how they refer to them. They don't swarm as far as I know, not like bees anyway. That was pure conjecture on my part. What I am saying is possible but I do not know. My research up to that time had suggested that that was possible because I was trying to ask myself questions about this. "WHY?" "Why did I see this happen?", and so on. Well, I can't answer that.

I continue to write "The project suggests that *Caladenia ericksonae* and *C. triangularis* are in fact hybrids". That was not accepted then but I noticed that it is in the *BOOK*. It took them 10 or 12 years to at least accept that. I might add that a select hierarchy of expert opinion in Western Australia rejected this paper. Their response was to some people in the eastern states who thought it was a fairly good paper, "Heberle dreams most of this up, we haven't seen them", and I agree with the last part.

In the summary, the table for preliminary hybrid figures suggests so and so and so. Out of 40 *Caladenia* species, that was all there was in those days, 26 hybridised and out of 10 varieties, seven do likewise. There remained at least 19 collections of possible hybrids that further research was required to determine the parents. I told you that it is up to about 60 now. I don't expect to unravel those ever, not even have a stab at it.

"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 natural hybridisation in *Caladenia*." I don't think that has happened either. I hope it has, but I haven't heard of it.

Well so much for all that, we can get on to the slides. A lot of them are old paperbacks that are fading. They are close to 20 years old.

I am having difficulty in relocating the orchid to re-photograph, which is par for the course. We all have that. We find something somewhere and we go back and we can't find it, and never see it again. But we are finding a lot that we have never seen before. Last year was possibly the best year ever. Don't ask me why, I haven't got a clue why we have good years for orchids and bad years. Sometimes it may be because of lack of rain, this year might be a bad year, and other times we get plenty of rain and everything and yet we still have very poor orchids. You have to ask the orchids those questions because I can't answer them.

AT THIS POINT IN RON'S PRESENTATION HE COMMENCED SHOWING SLIDES AND THE FOLLOWING COMMENTS ARE MADE IN REFERENCE TO THE SLIDES PROJECTED. HOPEFULLY WE CAN GET AN UNDERSTANDING OF RON'S MAIN POINTS FROM THE NARRATIVE THAT IS REPRODUCED WITHOUT THE BENEFIT OF THE ACTUAL SLIDE FOR ILLUSTRATION. OF NECESSITY, SOME OF RON'S COMMENTS HAVE BEEN OMITTED WHERE THEY ARE DIRECTLY RELATED TO THE SLIDE THAT WAS BEING PROJECTED. ...ED.

This is *Caladenia radiata*. Incidentally, the common name is not the "Ray Spider", it is "Daddy Long Legs". Always has been "Daddy Long Legs", but for some obscure reason the authors of the *BOOK* decide to put their own brand of common names on the orchids, which I suggest you ignore and give them your own. If they think they are entitled to put common names on orchids then so are we and we should do that. A very virile orchid that hybridises with any number of other species and is very common. Incidentally my wife and I took Hopper and Brown out to the first of these they ever saw back in the late 70's. They are very common. They grow within about 40 km of Albany and are extremely common towards the west. In some swamps they flower late. They flower in thousands.

This is *Caladenia pectinata*. This is possibly the true *Caladenia pectinata* that Rogers named from Albany. This grows right in Albany, all over Mount Clarence and all over the place. A very large and very handsome plant. But *Caladenia pectinata* has infinite variations.

White spiders are legend. You will find a different white spider wherever you go. I don't think naming ten or twelve, mostly from up north, is going to help much. I think if you are going to name them, you may as well name the lot and you would need to name at least 50.

This is the orchid that is going to be named after Andrew Brown, it has been called *Caladenia brownii*. And this shows the variation, as all of these were growing together in one location. When you get this sort of variation and when you get them crossing with others and the hybrid vigour comes in you are going to get an orchid that is very, very difficult to put a handle on.

Here is an attempt to fit *Caladenia pectinata*, *C. radiata* and the hybrid in the middle. See the wavy bits coming in there. These are the sort of things you have to look for with hybrids and of course the tip of the labellum, the fringing and the calli. You have to look at all of these features.

Here we have quite a different hybrid simply because the *Caladenia pectinata* is different.

These orchids are similar but their colour is quite different. Incidentally, colour, which is an unreliable guide as far as species are concerned, as you are all aware, comes through fairly well with hybrids. In other words, if it is a white hybrid, it will come through as white, if it is pink hybrid it will come through as pink, and a brown will come through as brown and so on. Not all the time, but mostly!

There is a bit of repetition here because I tend to photograph what I find in one location and you find the same orchids in another location with different ones so you get the same orchids coming up in the multiple shots. These are taken only for research purposes.

You can learn from your slides. If you have got an evening when you have got nothing better to do and if you have your own projector. What I do when my wife wakes me up from in front of the TV (I can sleep through the best of it) and gives me a cup of tea, I adjourn into the lounge room where I have a projector set up in front of a screen and I run through a magazine of slides. I look at them and I think about them and I learn from them.

The *Caladenia radiata*'s are reasonably stable. They don't have anything like the variation that the *Caladenia pectinata*'s or white spiders have. This is probably the reason why they hybridise more readily with the others, probably.

Caladenia ferruginea gets in on the act too. You would not distinguish between any hybrid between *Caladenia ferruginea* and *C. pectinata* because they have the same morphology. They have clubbed sepals and non-clubbed petals, they have the fringe and four rows of calli, and so on. They are more or less the same colour and they have the same tip to the labellum. So it would be very, very difficult to identify a hybrid between either.

Two of the late flowering *Caladenia*'s. These flower all over the place. We found some between Armadale and the Halfway House a couple of years ago in mid December. We stopped for a cup of tea and went wandering amongst a couple of white gums and there they were. The manuscript name, the illegitimate name, is *Caladenia serotina*, which means late flowering.

This one is going to be called *Caladenia pholcoidea*, these are quite legitimate to be named. *Caladenia pholcoidea* is a spider that has a small body and very long legs. You can get these with 8" sepals.

That is *Caladenia corynephora*, very common

around Albany. I can recall Wayne Merritt telling me that he and a relation of his canoed down from Bridgetown to Augusta and saw them flowering along the banks all the way and yet we had in the first book that the group published, a paper by Steven Van Leeuwin, he had them on the rare and endangered list. They grow in millions.

You see, these people, if they have not seen something in thousands it is automatically rare and endangered. That wouldn't worry me, except for the fact that since Hopper got in a position of authority he kicked up the penalty for doing anything to destroy these things from \$1,000 to \$10,000 which is absolutely ridiculous. Most people would not know that they are.

In that paper that I wrote, apart from the early and late flowering *Caladenia*'s, the rest of them seem to be capable of hybridisation. I make that definite statement and of course smart orchids have proved me wrong.

That is a hybrid between *Caladenia corynephora* and *C. radiata*. We have only ever seen two specimens of these, that doesn't mean anything. Just because we have only seen 2 it does not mean there are not 1000's somewhere else. We look at less than 1% of what there is to look at. We have been researching Mount Clarence for 35 years and we have only looked at a fraction of it. Every year or two we find an orchid growing we have never seen before.

You just cannot research even a hectare of bush unless you have 30 or 40 people and drew it all up in squares and run lines across with bits of string or wool and then walked along those lines. Even then you would only get what was flowering at that time of the year and during that particular year. This does not mean that what you found then is all you are ever going to find.

These are great big orchids, bigger than a white spider. The white spiders grow with them. They always grow in clumps. They are huge big things and they are the spitting image of a white spider except for the colour (pink). These come from around Cranbrook, and we find the odd clump every few years in different places, but only ever one clump. We have never seen more than one clump flowering and they usually flower with white spiders. There is nothing else there that is pink except heather, and heather hybrids are nothing like that. It could be *Caladenia chapmanii* but *C. chapmanii* flowers such a long way away from where these are and also *C. chapmanii* flowers a lot later.

Not that that means anything! The seeds could have blown for 100's of kilometres, which they do, and these could have colonised from somewhere else.

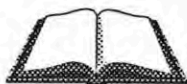
There was a very, very capable amateur botanist called Robert Fitzgerald. He was a draughtsman by trade and he painted the most beautiful plates of orchids, accurate to the minutest detail. He made a visit to Western Australia and he did a lot of botanising around Mount Barker, across to Bunbury and out towards the Stirlings and he named about 8 or 9 of our *Caladenia*'s.

I used to think I knew what a *Caladenia longicauda* looked like but having Hoffman and Brown's book I do not know now. I understand now, that *Caladenia longicauda* grows in one swamp out woop woop somewhere. Well that's a lot of rot! It grows all over the state! But because of geographic variations, which are ignored by professionals, they are different. A white spider which grows at Kalbarri will be entirely different to one that grows at Esperance because of geographic variation.

I'm not going to go into that here because it is a fairly deep subject but what it means is that whatever the difference is in the environment, the weather, the latitude and the longitude, the orchids will be different because they adapt to that particular area. So they will all be different and many of these have received names.

Caladenia lobata, which Fitzgerald said was the most beautiful and attractive of all of the *Caladenia*'s and he was so right. It is very common and flowers from Bunbury across to the Stirlings. A big block from Franklin up to Tenterden and particularly common around Mount Barker and the Hay River. It hybridises like mad.

AT THIS POINT THE TAPE RAN OUT IN THE RECORDER, SO WE ARE NOT ABLE TO REPRODUCE THE REMAINDER OF RON'S TALK. I SINCERELY HOPE THAT THIS HAS NOT DETRACTED FROM THE MESSAGE THAT RON WAS PRESENTING TO US. ...ED.



ENVIRONMENT MAGAZINE

Some Group members may be aware of a magazine title *ENVIRONMENT*, which is published quarterly by The Environment Centre of WA. This publication is a forum for discussion of environmental and related issues and welcomes articles, letters and poems with an environmental theme.

WANOSCG (Inc) receives a copy of the magazine each quarter and it is kept in the library, available to all members. The Autumn edition of *ENVIRONMENT* featured a number of articles relating to the theme of URBAN BUSHLAND. These articles are copyright, but the editor and authors have kindly allowed us to reproduce the following article titled **20 WAYS TO CARE FOR YOUR BUSH**, written by DAVID WAKE & JAMES DUGGIE. The article outlines 20 tips for caring for Urban Bushland in your area.

20 WAYS TO CARE FOR YOUR BUSH

David Wake & James Duggie

Urban bushland is special. Awareness about the value of Perth's bushland and the need to protect it is growing. But there remain many threats to our bush heritage. Community involvement in caring for local bushland is vital, everyone can make a contribution. Here are 20 things you can do to help:

1. GO EXPLORE LOCAL BUSHLAND

Explore bushland near you. If you go early in the morning you are likely to see many birds using the bush. Wander through the wildflowers. You can learn much about bushland just by looking and regular contact with bush is good for keeping in touch without natural surrounds. Walking through the bush provides peace of mind and is good for your health.

2. FIND OUT MORE ABOUT BUSHLAND

*Read *Sense of Place* by George Seddon (1972) and *Leaf and Branch* by Robert Powell (1990), try the local library for these and other books. Go on a *Wildflower Society* bushwalk. There are many informative and enjoyable events each month organised by community group. Check the local paper or the *Grassroots* column of *Earth 2000* in Monday's *West Australian*. Also try the *Environment Centre's* news-sheet, *What's On Environmentally*, for details of talks, walks and other activities. You can phone the Centre on 321 5942.*

3. GROWSOME LOCAL PLANTS IN YOUR GARDEN

Grow some plants indigenous to your area in the

*garden. Think about setting aside part of your garden for local species. This will encourage native birds to visit and provide them with food and habitat and a stepping stone between bush reserves. You will help conserve local flora too. Native plants can also save you money, they don't need much, if any, watering, so cut down the water bill. Look at a local bushland reserve or read *Leaf and Branch* to see which plants are indigenous to the area.*

4. DO A GREENING WA LOCAL BUSHLAND WORKSHOP

*Greening WA holds *Getting to Know Your Local Bushland* workshops each year in Perth and country centres. They provide an introduction to bushland including a hands-on look at the bush. The one day workshops cover bushland ecology and management. Greening WA also has education materials on bushland for school groups. Their phone number is 481 2144.*

5. BE CREATIVE! LET THE BUSH INSPIRE YOU

Take photos, draw or paint a picture, create a montage using leaves. It is a way of coming to know the bush better. You may like to share your insights with others through a public display. Bushland can also be the focus for community art projects, you may like to help start one in your area.

6. THINK ABOUT BUSHLAND

Why is bushland important? What's happening to it? What would Perth be like with no bushland? How can we protect it? Think about these questions. Share your thoughts with others. Perhaps you could write an article or letter for the local paper.

7. WRITE A LETTER TO THE NEWSPAPER

*Write to the paper about a bushland issue. Express your thoughts on why bushland is important to you and your family. We need to raise community awareness of bushland, this is a way you can help. A short letter getting your concerns or thoughts across is best. For the address see your local paper or page 10 of *The West*.*

8. ORGANISE A BUSHWALK

Organise a walk through bushland for the local community or a nearby school. You could find someone to guide the walk, try some conservation groups.

A walk is a good way to raise interest and awareness of local bushland and get people involved in looking after it.

9. HELP CLEAN UP A BUSH AREA

Get together with some friends to clean up local bushland. Remove rubbish like plastic bags, garden waste and household rubbish. The local council might agree to pick it up from a convenient point.

Tread softly! Be careful that the clean up doesn't result in trampling of bush or removal of old branches which provide habitat for animals.

10. JOIN OR FORM A FRIENDS GROUP

There are many Friends groups looking after bushland around Perth, they are looking for more members. You could join with others to look after a nearby bushland reserve, take part in bush regeneration, surveys and walks.

If there isn't a local group you can help form one. There may be people in your area with similar interests. Put notices in the local paper, libraries, shops calling a meeting about the bushland. At the meeting see if there's support for a Friends group. The Urban Bushland Council (220 0652) and Ecoplan (222 7000) can provide advice on setting up a group.

11. ASK ABOUT A MANAGEMENT PLAN FOR BUSHLAND

Ask the local council if your local bushland has a management plan. Management plans are important, they give recognition to the value of local bushland and help ensure management work is part of the informed, integrated plan instead of ad hoc.

If there isn't a plan for your local reserve you could help write one. Work with the council or other management authority and seek advice from other conservation groups.

12. HELP REGENERATE LOCAL BUSHLAND

Much of our urban bushland has been degraded with rubbish and weeds. You can help regenerate it. This can involve cleaning up the reserve, progressively removing weeds and limiting disturbance. It is important to get advice and prepare a plan for regeneration. You could contact the Australian Association of Bush Regenerators or Wildflower Society for information, also do the APACE course with some friends.

13. DO THE APACE BUSH REGENERATION COURSE

APACE runs introductory courses on bush regeneration. They are designed for beginners and will develop your skills in looking after bushland. The course covers regeneration techniques, mapping bushland, native plant and weed identification, monitoring and bushland ecology. A number of courses are held each year in different locations. Contact them on phone 336 1262.

14. JOIN ECOPLAN

You could join Ecoplan. It is a campaign to get people to think about and care for special parts of the environment near Perth. It provides support including training and advice for volunteers looking after bushland around Perth. Contact The Department of Environmental Protection, phone 222 7000.

15. COMMENT ON PROPOSALS AFFECTING BUSHLAND

Keep an eye out for proposals affecting bushland, they are usually advertised in the local paper or The West. Rezoning plans and development proposals on or adjacent to bushland are usually open for public review. So too are management plans for reserves.

Your ideas and comments may be important to decisions about bushland area, don't underestimate the value of your contribution. You may have information to offer or wish to express your concern over the threat to bushland. Community participation in these decisions is important, so take part.

16. GET YOUR LOCAL SCHOOL INVOLVED

Get your local school to adopt nearby bushland or grow local plants. Greening WA has materials to help with school activities to do with bushland. Projects like these have much potential for practical learning and can link in with school lessons.

Raising children's awareness of bushland and encouraging empathy with the local environment is important. Try your child's teacher, the school principal or the P & C to get something going.

17. WRITE A LEAFLET

Write a leaflet for residents living near local bushland. Explain the values of the bush and how they can help to look after it. Mention problems like trampling and rubbish dumping which degrade the bush. An area of bushland will only be safe when everyone in the community appreciates its value and understand its fragility. Local people are needed as friends of bushland, to keep an eye on it and get involved in looking after it. Your local school, council, or MP may photocopy the leaflet for you. Put it in the letter box of houses near the bush area or better still knock at the door and meet people in the neighbourhood.

18. PREPARE A FLORA AND FAUNA LIST

List the plants and animals living in local bushland. It's good to have a record of what is in the bushland. Doing this can highlight the importance of the area including the number of species and any rare flora or fauna. But all bushland is important! The Wildflower Society, Naturalists' Club (389 8085) and Ornithologists Union (383 7749) may be able to provide expertise to help you with compiling a list.

19. CHECK IF YOUR LOCAL COUNCIL HAS A BUSHLAND POLICY

Write to or phone your local council.

Ask if they have a policy on protecting and managing bushland. If they don't have one then suggest a policy be written up with community input. The council manages public land for you, so you should have a say in how this is done. Councils also make planning decisions which affect bushland.

A policy could spell out how the council will protect remnant vegetation and look after bush in local reserves.

20. WRITE TO THE ENVIRONMENT MINISTER

Write a letter to the Environment Minister asking what the State Government is doing to protect urban bushland. Ask when WA will have an urban bushland policy that ensures protection and management of our bush heritage. Express your concern about urban bushland and press for action. Write to

Hon. Kevin Minson MLA,
Minister for the Environment,
12th Floor, 2 Havelock Street,
West Perth 6005.

These actions are ways you can help to keep our urban bushland. Everyone has their part to play and together we can make a difference!

For more information or to get in touch with others concerned about urban bushland try the following community contacts:

Australian Association of Bush Regenerators WA promotes sound practise in bushland management, can advise on bush regeneration techniques and provide contact with other involved in looking after bushland contact them through

APACE,
1 Johanna Street,
North Fremantle 6159,
Phone 336 1262.

Conservation Council of WA is the peak conservation organisation in WA and can give advise on lobbying and campaign strategy and provide contact and information.

79 Stirling Street,
Perth 6000
Phone 220 0652.

Urban Bushland Council WA is a coalition of urban bushland groups and can provide advice on lobbying and forming a friends group, networking and contact with other people concerning about bushland.

Contact

PO Box 326,
West Perth 6872,
Jane Blake phone [REDACTED]
James Duggie phone [REDACTED]
David Wake phone [REDACTED]

The Wildflower Society of WA is concerned with the study and conservation of WA's wildflower heritage and can provide advice and expertise on surveying and managing bushland.

PO Box 64,
Nedlands 6009
Phone 383 7979.

James Duggie is on the executive the Urban Bushland Council WA and active in the Friends of Shenton Park Bushland. David Wake is also on the Urban Bushland Council executive and involved in the Coalition for Wanneroo's Environmental and Quinns Rocks Environmental Group - which is preparing a booklet on finding out about and caring for Perth's urban bushland.

If you wish to become a subscriber to **ENVIRONMENT** then please contact

The Environment Centre of WA,
587 Wellington Street,
PERTH.
Phone (09) 321 5942

or write to

PO Box 7357,
Cloisters Square,
PERTH 6850.

The annual subscription is \$12.00 for four issues.



FROM THE PEN OF OUR BUNBURY CORRESPONDENT.

The following musings have been sent to us from our Bunbury Correspondent, who claims *"All of my utterings have been based on truthful happenings, though they seem to end up thoroughly distorted and only a semblance of the original - that's life - that's fiction"*

Read on and make of these what you will.

COUNTRY HOSPITALITY

Those of us who have spent time in the deep south, Walpole in particular, are fully aware of the wonderful hospitality to be enjoyed at the Jackson household, it is legendary!

Two items in particular, the jams and pickles, conjured up by Gloria, are a sheer delight, tempting the tastebuds of all and sundry. However, few know why they are in such short supply. It seems that some time ago Mrs J. considered large scale production for the local market as a cottage industry and proceeded to produce large quantities of the delicacies.

Unfortunately, none ever reached the market. Why?, and well you may ask. It was difficult to recruit suitable local labour and Bill was co-opted to assist as "The Taste and Temperature Tester".

With his usual enthusiasm, he set to with a will and did the job properly. He said the only way to test correctly was to eat the lot, which, he promptly did. He has had a sweet tooth ever since, which takes a lot of satisfying.

THE BUNBURY CORRESPONDENT WISHES TO REMAIN NAMELESS AS HE LIVES ONLY 256.7 KILOMETRES FROM THE JACKSONS. SURE THING RON, I'LL KEEP YOUR IDENTITY SECRET...ED.



MINUTES OF W.A.N.O.S.C.G. GENERAL MEETING - MAY 18, 1994.

PRESENT:

As per attendance book.

VISITORS:

There was one visitor, and Rosemary Thorne was made welcome.

MINUTES:

It was moved B.Yates/J.Arends "that the minutes of the General Meeting held on May 20, 1994 be accepted." Carried.

BUSINESS ARISING:

Nil.

CORRESPONDENCE:

As per correspondence list.

It was moved M.French/H.Lodge "that

- (a) WANOSCG (Inc) attend the Kings Park Wildflower Show in 1994, and that WANOSCG display the ten orchid photographs and sell our books, etc. under Kings Park guidelines and
- (b) WANOSCG (Inc) defer their decision to run a manned stall of potted plants until WANOSCG has a response from Kings Park re selling WANOSCG material at their own manned stall."

TREASURER'S REPORT:

Treasurer's Report was circulated.

FIELD TRIPS:

Any information on suitable locations for field trips and offers to lead trips welcomed.

There will be a trip to Whiteman Park on Saturday, July 2, combining with the Northern Districts Branch of the Wildflower Society. This will be led by Dave Bright.

SUPPER COORDINATOR:

There have still been no offers to fill this important position. Bill Burton volunteered to fill this position.

PLANT TABLE:

There were many pots and people displaying plants spoke on their own.

GENERAL BUSINESS

Bill Burton asked those people with sweatshirt and "T"-shirt orders to confirm them with him and anyone else wanting to place orders to do so quickly, so that he can make up an order of sufficient quantity.

Thanks were given by Ian Greeve on behalf of us all to Ron Heberle for his delightful slide show and presentation on *Caladenia's and Their Presumed Hybrids*.

An appeal was made for material for the Bulletin. Any field trip reports and anything at all of interest to the Group will be welcomed by the Editor.

Winners of the raffle prize were Dave Bright and Melissa Haynes.

Meeting closed at 2150.



FOR SALE.

ORCHIDS OF WESTERN AUSTRALIA.. 2ND ED.

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.

5 IN 1 SURVIVAL AID

In order to encourage safety awareness in the bush on field trips, the group 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. We have sold around half of these items and are now offering the remaining "Survival Aids" at the discounted price of \$4.00 (plus \$2.00 for postage and handling).

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 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 Minna George at any meeting of the group, or can be ordered from Minna by mail (address is on the inside cover). Please add \$2.00 for postage and packaging for each item.

SUPPER ROSTER		RAFFLE ROSTER	
June	M French	June	J Greeve
July	J Eaton	July	T Lock
August		August	

WANOSCG

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Forthcoming Field Trips

Whiteman Park -- Saturday, July 7.