

RESEARCH NEWS

The newsletter of the Research Division of the Department of Conservation and Land Management

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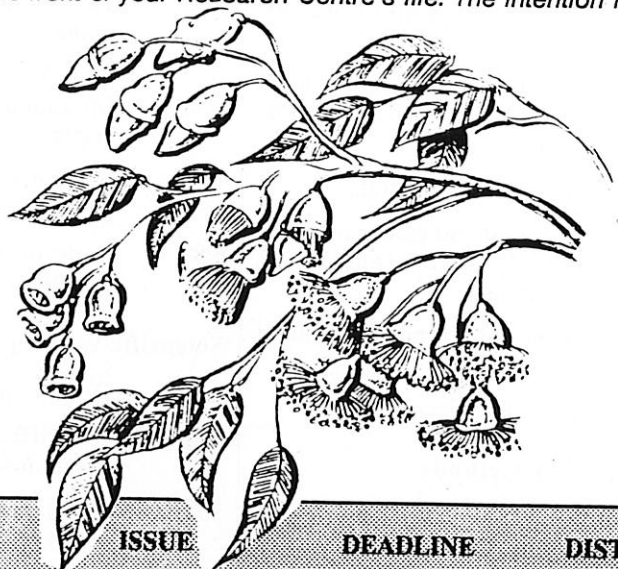
EDITORIAL

Research News turns two this month. Since we first went into production in January 1988 twenty-one issues have been produced. Over this time many useful and informative articles have been contributed by Research staff. There has also been numerous administrative type instructions and procedures documented. It is not our intention to let these articles sink into oblivion.

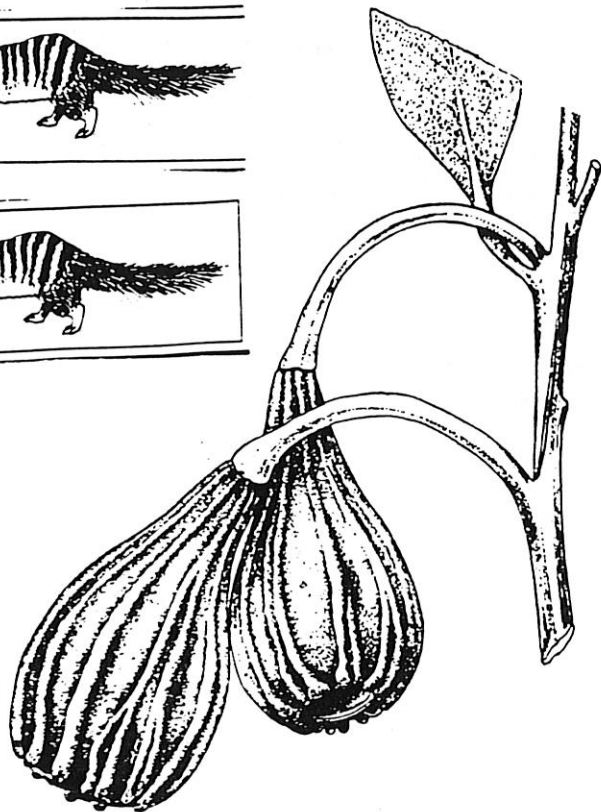
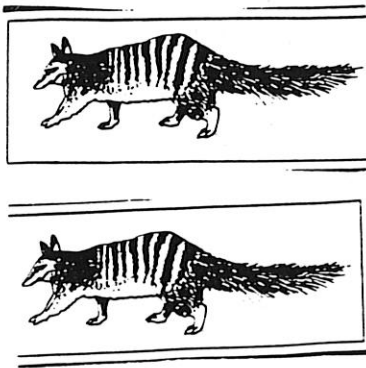
All Research Centres are asked to keep a file of Newsletters. Many new staff members may be interested in reading some of the articles on seminar giving, performance appraisal and time management for example. Existing staff may also wish to refer back to previous articles.

For the benefit of both "new" and "existing" staff I have prepared an index to useful reference type articles. This should be placed at the front of your Research Centre's file. The intention is to update the index on an annual basis.

Jeanette



	ISSUE	DEADLINE	DISTRIBUTION
DEADLINE FOR NEXT ISSUE	FEBRUARY '90	23 FEBRUARY	EARLY MARCH



Research News - Index

NO.	ARTICLE
Administration	
5/88	Funds for invited speakers to interstate conferences.
7/88	Publishing plan for research bulletins, technical reports and occasional papers.
4/89	Procedures for filling Research Division technical staff vacancies.
4/89	The dark dim world of performance appraisals.
5/89	Publication of scientific and technical papers in external journals and books (some procedures). (I Abbott)
6/89	Priorities within Research Division.
6/89	Performance appraisal and career development - the new CALM appraisal form and its application. (J Gilmour)
6/89	Equal employment opportunity and you. (J Gilmour)
7/89	CALM News Liaison Officers.
Computing and Research Methods	
7/88	Research Methods Note 1 - Induction, statistics and parameters. (D Ward)
8/88	Research Methods Note 2 - Different types of data. (D Ward)
9/88	Research Methods Note 3 - Question mapping. (D Ward)

10/88	Research Methods Note 4 - Why large expensive experiments should be rare. (D Ward)
11/88	Research methods Note 5 - Estimating required sample size. (M Williams)
1/89	Computing news - Software to help you edit your papers, reports and correspondence. (G Stoneman)
4/89	PC: Disk drives - bloody disk drives!
6/89	NATCOM: Australia wide recognition of CALM expertise in environmental research and management. (S Crombie/H Clift).
9/89	Computing news - Matrix generation and print utility system.

Library

8/89	The Herbarium library. (E Davison)
10/89	Searchmagic enquiry program for Woodvale library.

Management Hints

10/88	Short of time? (Time management article)
11/88	Leadership and the Pygmalion Effect. (D Ward)
11/88	Short of time - The importance of planning.
1/89	Short of time - Effective supervision and delegation.
2/89	Short of time - Effective meetings.
3/89	Short of time - Management tips.

Research Findings

6/88	The Underground Orchid (<i>Rhizanthella gardneri</i>) - a new population discovered. (A Brown)
9/88	Operationalizing Research findings; Publish or perish? (N Burrows)
11/88	Endangered species: are they worth saving? (A A Burbidge)
6/89	<i>Andersonia longifolia</i> re-appears. (G Keighery)

Scientific Writing and Seminar Presentation

6/88	How not to give a seminar. (I Abbott)
8/88	A word from the Scientific Editor-Use of the word "number". (M Lewis)
10/88	A word from the Scientific Editor - Use of the word "compare". (M Lewis)
11/88	A word from the Scientific Editor - Is it right or is it alright? (M Lewis)
7/89	Scientific etiquette. (I. Abbott)

PLANNING AHEAD

1990 - SOME DATES TO REMEMBER (January to June)

From time to time many of us are caught in last minute rushes to meet deadlines often due to absences on field trips or lack of adequate notification for submissions. In order to help with forward planning the following are a list of some dates to note for the first half of 1990. (Note: This information is based on previous years activities).

JANUARY

Grant applications - ABRS (Australian Biological Resources Study). Applications called January, close mid March.

RDPG meeting - 25 January at Dwellingup Research.

FEBRUARY

Grant applications - Western Australian Heritage Committee, National Estate Program grants. Applications called in February, close end of April.

RDPG meeting - 22 February at Woodvale followed by a meeting with the Program Leaders.

Seminar - 15 February at Como. NAP Project Review: Integration of pulp cropping trees into farming systems. (John Bartle).

MARCH

RDPG meeting - 22 March at Manjimup Research.

Seminars - 2 March at Woodvale. Kimberley research using volunteers. (Kevin Kenneally)

15 March at Como. Western Weeds. (Greg Keighery)

APRIL

Grant applications - ANPWS (Australian National Parks and Wildlife Service) States Co-operative Assistance Program. Applications called in April, close mid May.

RDPG meeting - 26 April at Como Research (includes a meeting with the staff).

Seminars - 6 April at Woodvale. Fact v's fantasy in conservation genetics; a fishy example. (Jim Stoddart)

19 April at Como. Season regrowth Eucalypts. (Brett Glossop)

MAY

Research Plan - updates begin this month (or possibly earlier).

RDPG meeting - 24 May at Narrogin (NB venue to be confirmed).

Seminars - 4 May at Woodvale. Mammal re-introductions: a WA perspective. (Tony Friend)

17 May at Como. Is fire necessary for desert lizard communities? (David Pearson)

JUNE

Annual Report - submissions called for.

RDPG meeting - 28 June at the Herbarium. This meeting will be followed by a meeting with the Program Leaders.

Seminars - 1 June at Woodvale. Kimberley Rainforest communities. (Norm McKenzie)

21 June at Woodvale. What is the best measure of average damage caused by insects and fungi to leaves? (Matthew Williams) and Impact of pest populations of Gumleaf Skeletonizer and Jarrah Leafminer on other invertebrates living in jarrah foliage. (Ian Abbott)



Information from the Research Division Policy Group Meeting

Since the last Newsletter the RDPG has met twice. Once on 21 December 1989 at the Herbarium and more recently (25 January 1990) at the Dwellingup Research Centre. The following is a brief summary of discussions from those meetings.

External Grants

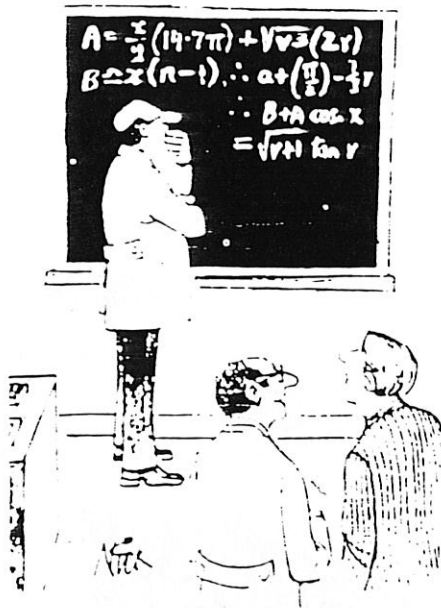
A memo from Steve Hopper to Woodvale scientists in relation to external grants and administration costs was tabled. The memo instructed that a % of the grant be paid into a general admin account to cover use of pool vehicles, photocopying, typing facilities etc. It was agreed that this should apply across the Division (not just Woodvale). The question of the % of the grant to be transferred to the admin account will be resolved shortly.

1990/91 Growth Items

Applications for growth received from each Program were circulated and discussed. These were prioritized. Adjustments to Research Centre administrative allocations received top priority.

Directory of Expertise - Research Division Staff

A directory of expertise by keyword had been prepared by Lisa Wright (library). It was agreed that this was a good improvement on the current list by name in the Research Plan, however it still required some work. Ian Abbott will look at re-organizing it into a series of generic headings with specifics within.



"Professor Ziegler's working on a way to get our research grant renewed."

Request for work experience from overseas students

A request had been received from two French students seeking voluntary work experience. It was agreed this should be encouraged. They will be sent a copy of the Research Plan and asked to liaise directly with project leaders on topics of interests.

Herbarium Computer

Arrangements are in hand for the payment of the new computer at the Herbarium. An injection of funds had been received via Frank McKinnell.

Budget

Tony Start tabled papers on (i) the current state of the contingency fund (ii) the Division's current expenditure by Program and Costs Centre (iii) 1990/91 estimates and (iv) overtime expenditure to date (i.e. 16/1/90). It was noted that with 52% of the fiscal year gone the contingency accounts and a number of Centre admin accounts were not in a good position.

Staff Appraisals

A list of scientists and their appraising officers will be maintained. This will be used in order to maintain consistency in appraisers from year to year.

Scientific and Technical Publications Proformas

Some difficulty had been experienced with these forms especially in relation to maintaining anonymity of the referees. Ian Abbott and Marianne Lewis will address the issue.

It was noted that the approval to publish was for the nominated journal only. If the author altered journals a new approval would be required.

Next meeting

The next meeting of the RDPG will be held on 1 March 1990 at Woodvale. This will be followed by a meeting with the Program Leaders.

SEMINAR

Thursday 15 February

NAP Project Review : Integration of pulp cropping trees into farmland systems.

Presented by

John Bartle : Principal Research Scientist (Special Projects)

Gavin Ellis : NAP project forester

Richard Silberstein : NAP project hydrologist

Bruce Mattinson : NAP project economist

The Commonwealth Government set up the National Afforestation Program (NAP) in 87/88 to stimulate increased investment in timber production on farmland. It is envisaged that timber production on farmland will reduce the pressure on native forests and provide a productive option for land rehabilitation.

CALM in conjunction with The Department of Agriculture and Western Australian Water Authority gained a grant of \$1.2 m extending over three planting seasons (88, 89 & 90) for a project with the title "Demonstration of the integration of short-rotation eucalypts into agricultural systems in the SW of WA".

The project has become the major force in the technical and economic development of integrated pulpwood eucalypts/conventional agriculture farming systems. These systems offer real promise to extensively treat problems of land and water degradation while also improving farm profitability. The project has several parts:

- to develop and demonstrate improved establishment and management practices for short-rotation eucalypts in farmland. Gavin Ellis will review this aspect of the project.
- to develop optimum distribution patterns of tree crops, conventional agriculture, and to evaluate and demonstrate their hydrological performance. Richard Silberstein will present this section.
- to develop and present integrated tree crop/agriculture options to farmers in understandable economic terms. Bruce Mattinson will present this aspect.

John Bartle will introduce the seminar.

Venue:
Training Centre
CALM SOHQ
50 Hayman Rd
Como



Time: 3.00 pm

SEMINAR

Friday 2 March 1990

Community Involvement : The Role of Amateurs in Kimberley Natural History Data

Presented by

Kevin Kenneally

Western Australia's northernmost region, the Kimberley covers 302 580 square kilometres, more than four times the size of Tasmania. It is remote, difficult to access and expensive to conduct field work. Also, the main flush of growth and flowering comes with the 'wet'; but this is also the season when much of the country becomes impassible by road.

The Kimberley has a resident population of only 25 000 people but this is boosted by tourism during the dry when some 250 000 visitors arrive annually. In Broome the revenue from tourists alone is estimated at \$80 million a year. The majority of these visitors come to see the "natural wonders" of the Kimberley and seek information on the flora and fauna. For many areas this is not available. At the same time the Kimberley is one of the fastest developing areas in northern Australia with the population of Broome doubling to 8 000 in the last decade and a resurgence in mining. All of these developments impact on the natural environment and require the gathering of information to assess that long term conservation requirements are met.

This is where resident naturalists can play an important role in data gathering. In addition an innovative scheme where voluntary assistants pay to participate in Kimberley field trips has been operating for the last six years. Information gained from these trips has been used in major CALM research projects.

The seminar will illustrate areas visited and the rationale for choosing areas to be surveyed.

Venue:
Wildlife Research Centre
Ocean Reef Road
Woodvale

Time: 3.00 pm

Prose Style for Scientific Writing

A scientific article should hold the attention of its readers by the importance of its content, not by a presentation calculated to impress the reader with the author's intellect and scientific status. The meaning should be clear, not obscured by imprecision, verbosity, or obvious rhetorical devices: "Good prose is like a window pane". The reader should not be aware of the author's style: "Prose is bad when people stop to look at it".

Concise Statement

Sentence Length and Structure

An excessively long sentence makes it difficult for the reader to connect the opening words with the closing words and to grasp the point of the sentence at first reading. Excessive length cannot be defined simply, but a sentence of more than four or five typed lines should be examined to see whether it can be rewritten to form two sentences. Consecutive sentences of like structure can make monotonous reading; changing the word order will add variety to sentence structure.

Verbiage

Review the text of your article word by word. Eliminate phrases and words that are not needed. Although writing can be too compact and terse, wordiness is the most common fault. "It is interesting to note that," for instance, does no real work and delays the reader's getting to the point of the sentence. Change such expressions as "It was reported by Smith that ..." to "Smith reported that ...". Below are many frequently used verbose phrases and their simpler equivalents.

Verbose	Simpler		
a number of	few, many, several	it is this that	this
an innumerable number of tiny veins	innumerable tiny veins	it would thus appear that	apparently
at the present moment, at this point in time	now	large numbers of	many
bright green in color	bright green	lenticular in character	lenticular
by means of	by, with	masses are of large size	masses are large
(We) conducted inoculation experiments on	inoculated	of such hardness that	so hard that
due to the fact that	because	on the basis of	from, by, because
during the time that	while	oval in shape, over-shaped	oval
fewer in number	fewer	plants exhibited good growth	plants grew well
from the standpoint of	according to	prior to (in time)	before
goes under the name of	is called	serves the function of being	is
if conditions are such that	if	subsequent to	after
in all cases	always, invariably	the fish in question	this fish
in order to	to	the tests have not as yet	the tests have not
in the event that	if	the treatment having been performed	after treatment
in view of the fact that	because	there can be little doubt that this is	this probably is
it is often the case that	often	throughout the entire area	throughout the area
it is possible that the cause is	the cause may be	throughout the whole of the experiment	throughout the experiment

Library Report : Journal Loans to Non-metropolitan Centre

At long last researchers and other CALM employees will have the opportunity to see recent issues of journals. The library will be starting a journal loan scheme for non-metropolitan research centres, similar to the scheme which has been operating for many years at the Dwellingup Research Centre. The idea is quite simple. When each research centre has notified the library which journals it would like to receive, the appropriate issues will be sent to a "caretaker" for a two week loan before being returned to the library. The system should be operating within the next few weeks at the following centres:

Centre	Caretaker
Albany	Richard Harper
Dwellingup	Heather Warren's replacement
Geraldton	Kim Nardi
Manjimup	Michelle Pree
Narrogin	Patrick Piggott

The library staff hope to extend the service to Bunbury and Kelmscott too. Hugh Clift will review the system in a few months to ensure that it is working smoothly.

This journal loans scheme will help us all to keep up with the current literature. It will also help the library staff by reducing the number of requests for articles which are generated by CALM Alert, as well as reducing the amount of photocopying which is done at Woodvale.

Many thanks to Hugh and his staff for initiating the scheme; it is up to us to ensure it works well.

Elaine Davison
Senior Research Scientist

STORMS IN A COFFEE CUP

Bruce Charlton on the practice that makes science worthwhile.

(Acknowledgement - The following has been extracted from the "New Scientist" 16 December 1989).



It is seldom noticed that the most important aspect of scientific life is not the experiments, the writing of papers, or even going to meetings: it is the coffee break.

The coffee break is what keeps me sane and if, heaven forbid, I ever found myself in a department which did not feature such a thing, I would be brain dead within the week. This may sound like hyperbole, but I am being as accurate as possible. In a very real sense the coffee breaks are the main reason I am a scientist.

Why should this be? Well, it stems principally from the deficiencies of academic life as it is, compared with how it should be. How it should be is clear enough. The meeting of finely honed minds, the cut and thrust of debate, the thorough consideration of challenging new ideas - you know the sort of thing? But what is the reality? A bunch of introverts experimenting in labs and writing the most stupendously dull prose imaginable while engaging in those petty squabbles known as "scholarly controversy".

Scholarly controversy is all very well, but it doesn't exactly require lightning reflexes and nerves of steel. It is more like a pair of sloths having a boxing match in a bowl of treacle. Doctor X writes a paper which after several rounds of spitefully anonymous refereeing is accepted. There follows a delay of about a year before the paper is printed. Then what happens? Nothing. Or maybe a light snowfall of reprint requests. Hardly personal, though. I got a card recently from an eminent North American scientist which read: "Dear distinguished colleague. Please send a copy of your recent article entitled "(blank)" published in "(blank)" and any other papers you may have written on the subject." I did exactly as requested and sent nothing.

Even if your paper does cause "controversy" then don't hold your breath. Even if your rivals have already gathered some contradictory evidence, it will probably be another two years before they can get anything into print. The whole process is about exciting as watching mountains erode, as unpredictable as the comedy cross-talk of Terry and June, and as satisfying as a low-fat yoghurt.

So where does the coffee break come in? It is the bread and butter (or rather the ginger biscuits) of laboratory life. On a timescale of months or years for obtaining grants, running experiments and publishing the results, it is the one thing that provides feedback on a day-to-day basis.

And virtually the whole of a modern university's intellectual life goes on at this time. I must admit that I have heard of the existence of elite dining clubs, secret political societies, and meditatively donnish post-prandial perambulations, but somehow or other I never seem to get invited.

So there it is. In our highly developed, post-industrial, multi-media world of advanced science and technology in the late 20th century, the major form of high level interaction is discussing the previous evenings TV over a lukewarm mug of instant coffee. It's a hole-in-the-corner kind of existence, I admit; we could do better, that's true; but it's cheap and cheerful and, so far, it's one of the few pleasures of science to have escaped "the cuts".

Scientific and Technical Publications

The following have recently been approved for submission for publication:

- Author(s): David Pearson
 Title: First records of the Mulgara, *Dasyercus cristicauda*, from the Gibson Desert and Queen Victoria Spring Nature Reserves
 For Submission to: WA Naturalist
- Author(s): G.J. Keighery
 Title: *Banksia canei* (Mountain Banksia) in Western Australia
 For submission to: WA Naturalist
- Author(s): R.J. Cranfield
 Title: List of vascular plants recorded from the Murchison catchment survey area (1985-1988).
 For submission to: Kingia
- Author(s): S.A. Halse, R.P. Jaensch, D.R. Munro & G.B. Pearson
 Title: Annual waterfowl counts in south-western Australia 1988/89.
 For submission to: CALM Technical Report

Research Project Plans

The following Research Project Plans have recently been approved.

- No: 35/89
 Title: Tree growth response to cutting trenches in Peel hardpan
 Officer-in-Charge: John Bartle
- No: 36/89
 Title: Assessment of the impact of *Phytophthora* species in woodlands and shrublands of the coastal plain between Perth and Cape Leeuwin.
 Officer-in-charge: Bryan Shearer
- No: 1/89
 Title: Marmion recreational fishing survey.
 Officer-in-charge: Jim Stoddart
- No: 2/89
 Title: Coral reef assessment.
 Officer-in-charge: Jim Stoddart

HAVE YOU HEARD

- Heather Warren, Administrative Assistant at the Dwellingup Research Centre has recently left the Department. Heather first joined the Forestry Department in 1974 and has now left to marry and take up residence in Northam. She leaves with the good wishes of all at Dwellingup and the many that have worked with her over the past sixteen years.

Being moulded by the Government way of doing things Heather has lodged her new PDF (by the way they are now called JDF's - that's Job Description Form for those not up with the latest lingo!) for her new life.

Title : Farmer's Wife (Warren)

Classification : No. 1

Duties

- Responsibility for physical and emotional well-being of self, partner and children.
- General domestic duties such as cooking, gardening, cleaning and washing heavy, dirty work clothes. May involve tending chooks and vegetable gardens, butchering, milking cows, preserving etc.
- Supervising correspondence lessons for children or driving them long distances to school.
- General labouring such as fence building, repairs, cleaning out sheds, clearing weeds, chopping wood, etc.
- Handling, feeding and general care of animals.
- Planting, tending and harvesting crops, sorting and packing produce, pruning and spraying trees.
- Purchasing spare parts and other farm supplies. Operating and repairing a variety of machinery and vehicles.
- Doing business with bank manager, stock and station agents and solicitors. Book-keeping and management of farm accounts. Other general secretarial jobs.
- Consultation on decisions regarding farm operations such as buying and selling, improvements and capital expenditure.
- Voluntary work for local charities and community service organisations.
- Supplying food and other assistance during emergencies such as bushfires and floods.
- Looking good after all this....

- Woodvale Research commenced the new year with the arrival of Peter Heslewood, their new Administrative Assistant for the Centre. Peter comes to CALM from the Department of Community Services where he worked as a Residential Childcare Officer. This primarily involved liaison

between the Departmental finance branch and the residential childcare agencies. He also has five years experience with the Police Department in their Finance and Personnel Branches. Peter is currently studying towards a Bachelor of Arts (majoring in Industrial Relations) at the UWA. He will complete his degree this year. Between work and study Peter still finds an odd moment to wave ski at his favourite beach.

- Thank you. Appreciation is extended to Lois Cade who acted in the position of Administrative Assistant at Woodvale for over twelve months. Thanks go to Lois for her hard work and enthusiasm over this period. (Lois - please note this mention is not on the last page!)
- Congratulations are extended to Ray Wills of the Manjimup Research Centre. Ray has recently been awarded the degree of Doctor of Philosophy from the UWA. The title of Ray's thesis was "Management of the Kwongan Flora Utilised by the European Honey Bee on the Northern Sandplain of Western Australia".
- A number of other new contract/temporary staff have joined us since our last newsletter. These include John Henderson (Como Research), Libby Vickery (Dwellingup Research), Andrew Storey (Woodvale), Neil Coy (Woodvale), Stephanie Turner (Woodvale/Marmion or somewhere to be determined). We welcome all of you to CALM and the Division (The editor apologises to anyone she may have missed - its hard to keep tabs on it all at times!).
- Welcome is also extended to Barb Giles and Robyn Bowles. Barb and Robyn are relieving in the position of Admin Assistant at Dwellingup Research until such time as the vacancy created by Heather's departure is filled.

W.R.C. WINE CLUB ANNUAL REPORT OCTOBER 1988 - NOVEMBER 1989

General Waffle

The inaugural meeting of the Wildlife Research Centre White 'n Red Club (thereafter just called the Wine Club!) was held on 7 October 1988 with 9 founding (and floundering? members present. Since then the Club has gone from strength to strength, and from bottle to bottle, and now has 17 grog-guzzling members.

In the 14 months of existence 14 meetings have been held (WOW! that's one a month) and (heaven forbid) 51 bottles (that's 38.25 litres of wine!!) have been imbibed; and that's not including all the extras consumed after the "official" tastings (like Dave Coates' much appreciated under-his-desk supply). Basically, we've had a jolly good time and no-one has yet been ill.

The Top Wines

The top 14 wines (by colour!) voted by our members' well-trained palates are listed hereunder with proportion of votes given for those tasted after January when voting started. A list of all wines tasted, and who was responsible, is available for non-members from the author on request.

Whites:

- Brown Bros. 1987 Chardonnay
- Brown Bros. 1987 Chenin Blanc
- Hardy's 1987 Rhine Riesling (60%)
- Wolf Blass 1987 Rhine Riesling (64%) - probably the top white
- Leeuwin Estate 1987 Margaret River Rhine Riesling (46%)
- Jim Barry 1987 Sauvignon Blanc (33%)
- Wynns Coonawarra 1987 Chardonnay (40%)
- Peter Lehmann 1987 Chenin Blanc (43%)
- Queen Adelaide 1988? Rhine Riesling (58%)

Reds:

- Seaview 1981 Cabernet Sauvignon
- Matthew Lang 1988 Beaujolais
- Jane Brook Mt Barker 1983 Cabernet Sauvignon (46%)
- Bailey's 1985 Classic Style hermitage (61%) - the top red
- Montrose 1986 Pinot Noir (62%) - not actually the top red!!

Financial Statement

We made a profit of \$51 from the first wine dinner. About \$10 of this was spent on various badly designed bottle openers, and the rest was squandered on some cheap plonk for the December meeting!! So we haven't got a razor!!

Gordon Friend Chief Wine Snob