

# RESEARCH NEWS

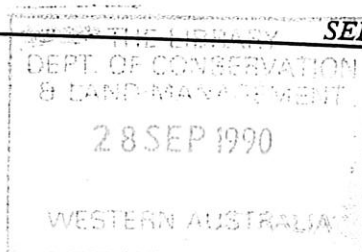
The newsletter of the Research Division of the Department of Conservation and Land Management

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SEPTEMBER 1990

## EDITORIAL

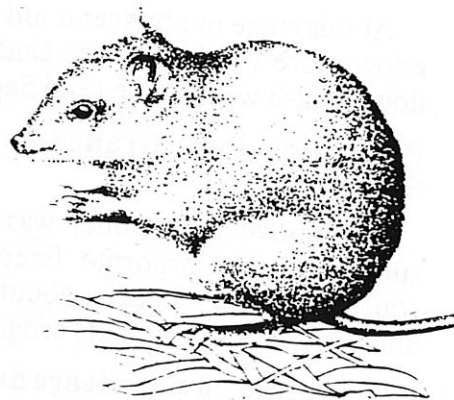


During August Per Christensen visited the Socialist Republic of Vietnam as part of a small official delegation from the Western Australian Government.

Welcome to Dr Michael Yung who will be working in the Research Techniques Program.

Farewell to the following staff at Como - Des Carter, Head Groundsman, Marie McDonald and Natalie Allday.

Christine.



Musky rat-kangaroo

	ISSUE	DEADLINE	DISTRIBUTION
DEADLINE FOR NEXT ISSUE	OCTOBER	LATE SEPTEMBER	EARLY OCTOBER

## Information from the RDPG meeting

The last meeting of RDPG was held on the 6 September 1990 at the Wildlife Research Centre, Woodvale.

The following is a summary of that meeting.

### Budget

At this stage our budget is unknown. We will know more when the State Budget is brought down in 2-3 weeks time (end September).

### Policy on Post Graduate Studies and Study Leave

The above draft policy was prepared and submitted to Corporate Executive. Several staff have made enquiries about this document and RDPG is checking its progress.

### Colloquium on Excellence and Usefulness of RD Research

At the above meeting on the 1 August 1990 several ideas were expressed and submitted to RDPG. It was agreed by RDPG that all RPPs are to be completed by 31 March 1991.

### Rewards Sought by Scientists

The above document was circulated recently to Scientists and RDPG discussed their response to the Table of Rewards. It was agreed that a manual and overview be prepared for Scientists outlining what is expected of them and how the system works.

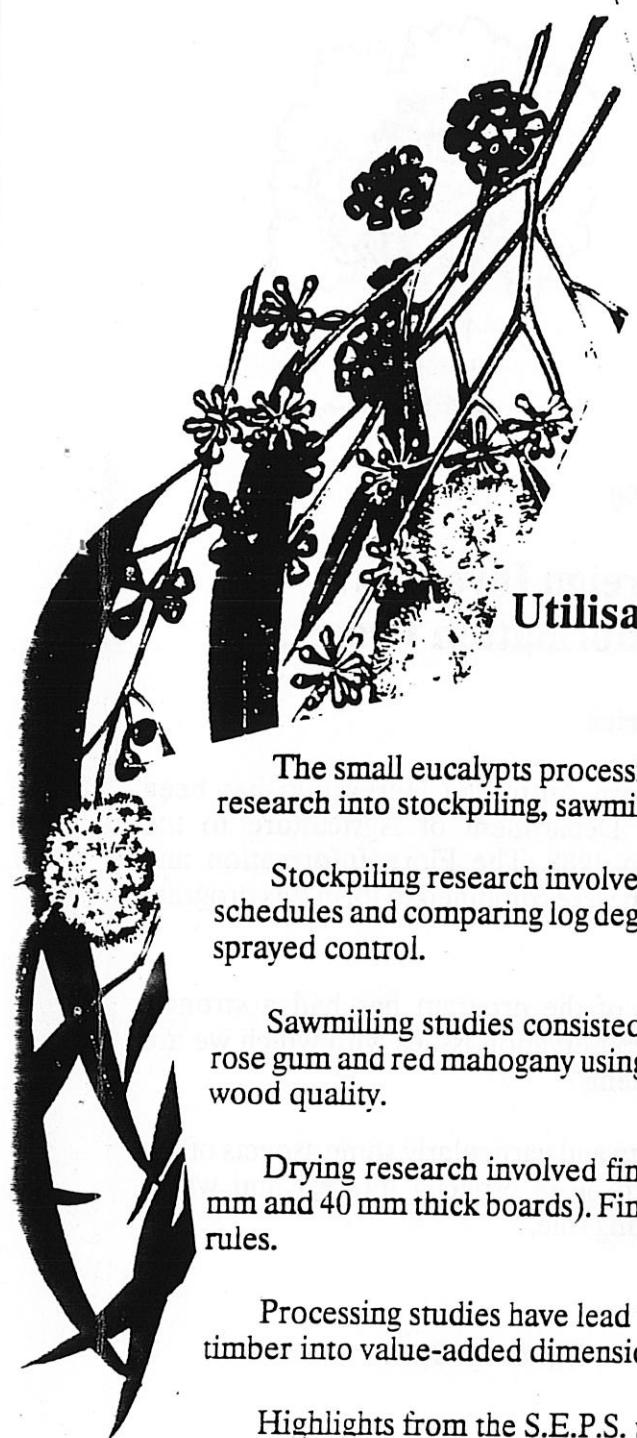
## Species Codes for Data Basing

A discussion paper has been prepared by Paul Gioia on "Species Codes, the Census and other problems". RDPG agreed to adopt this concept which has great merit and a small working group will be set up.

**NEXT MEETING at Como Research Centre on the 25 October 1990**



Brolga (*Grus rubicundus*)



## **SEMINAR**

**Thursday 20th September 1990**

# **Utilisation of Regrowth Eucalypts**

**Presented by Gary Brennan**

The small eucalypts processing study (S.E.P.S.) concluded in June 1990. This study involved research into stockpiling, sawmilling, drying and processing of regrowth eucalypts.

Stockpiling research involved storing regrowth jarrah and karri logs under reduced watering schedules and comparing log degradation and sawing characteristics to logs in a continuous water sprayed control.

Sawmilling studies consisted of cutting regrowth jarrah, karri, marri, Tasmanian blue gum, rose gum and red mahogany using a different cutting technique and evaluating sawn recovery and wood quality.

Drying research involved finding initial drying schedules for regrowth jarrah and karri (30 mm and 40 mm thick boards). Final grading results were determined using the W.U.R.C. grading rules.

Processing studies have lead to the development of the Valwood (R), a system of processing timber into value-added dimensioned wood for use in furniture manufacture.

Highlights from the S.E.P.S. project will be discussed.

**Venue**  
**Research Centre Auditorium**  
**CALM**  
**Hayman Road Como**

**Time**  
**3.00pm**



## **SEMINAR**

**Friday 5th October 1990**

# **Drugs, Poison Plants and Foreign Invaders? Some aspects of CALM's Flora Information Program**

**Presented by Susan Patrick**

The Flora Information Program based at the Western Australian Herbarium has been established since transfer of the Herbarium from the Department of Agriculture to the Department of Conservation and Land Management in 1988. The Flora Information and Regional Flora Sections of the original Herbarium Program were combined to form this program following the review of the Herbarium in February 1990.

In the past the Identification and Enquiry Section of the program has had a strongly agricultural bias, which can sometimes conflict with the conservation issues with which we are now primarily concerned. How can we resolve these problems?

This seminar will examine the objectives of the program and particularly some aspects of the identification and enquiry service, which have proved to be of especial interest and which continue to produce useful information despite our changing role.

**Venue:**  
**Wildlife Research Centre**  
**Ocean Reef Road**  
**Woodvale**

**Time: 3.00pm**



*The article on Harvard Graphics in the July/August issue encouraged me to write something on using HG to prepare overheads, slides and prints in colour.*

## Harvard Graphics for Colour Presentations

David Bicknell  
NSCP L and care Project  
CALM Esperance

Examples of text and graphics charts from Harvard Graphics were given in the last Research News. This article points out some of the other uses, costs and background to using HG.

### Overhead Transparencies

Most people having access to a computer also have access to a black on white printer; dot matrix or laser. Overhead transparencies can be prepared by photocopying the printed chart directly onto clear or tinted overhead transparency film - it must be the type for plain paper copiers!

Colour can be added by using indelible overhead marker pens. This means that all the chart lines and text will be black.

For full colour, there are companies that will use the HG file on a floppy disk to produce colour overheads. Lines, text, background and so-on can be a specified colour. You obviously need a reasonable quality colour screen on the computer to see your design.

Cost of the full colour OHP sheets is from \$13.50 to \$18.00, depending on company and number.

### Colour Slides from Harvard Graphics

Several alternatives are possible, and used within CALM! From least high-tech to most high-tech;

\*Print a standard black and white hard copy, hand colour or use coloured paper to infill, then photograph the image (slide film and a copy stand)

\*Prepare the colour graphic on a high quality colour graphic VDU, then photograph the image directly from the screen. There are some tricks to this.



\*Have the colour graphic printed with a colour inkjet printer, then photograph the print (slide film and copy stand).

\*Send the HG file on a floppy disk to a company that will prepare a colour slide directly from the disk.

There is one company that will use HG direct, another needs to convert the HG file to a "SCODAL" file (information on this is available within CALM), and another company cannot use Harvard Graphics - it uses the data and design for input to another program.

Costs range from \$12.50 plus set up costs, to less than \$10.00 with no set up costs, per slide. Actual cost depends on the company and number of slides. For example, a single slide from a company not able to use HG could cost more than \$50.00.

### Colour Prints

Most of the alternatives have been referred to above:

\*Black and white printer output, hand coloured

\*Colour printer or plotter. Colour laser or inkjet give best quality

\*Photographic prints from the colour slides outlined above

The quality and art work from some companies is very high. However, most presentations do not need to be very high quality unless being used repeatedly for major meetings.

## Software-Hardware

Older copies of Harvard Graphics, without Draw Partner, can produce some very good graphics. The newest version, HG Version 2.3, has quite a few advantages; more symbols, a better drawing system, and recording of background colour (so I am told) for slides. Cost is likely to be around \$620.00.

A mouse is necessary for the drawing program, and it speeds operation of the rest of the program. A Microsoft compatible mouse is necessary for other uses. A Microsoft Mouse will cost about \$220.pp. alternative mice are cheaper and are being used successfully. As an example, a Genius Mouse GM 6000 costs about \$100.00 and comes with a mouse mat, a holder, its own "paint program", software, and connections.

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## New Policies

The following new policies are available and copies can be obtained from your Centre Manager or Christine F rreil, Admin Assistant at Woodvale

1. Policy Statement No. 27, CALM's Role in Management of Vegetation in Rural Areas;
2. Policy Statement No. 36, Post-graduate Studies and Study Grants

The three months are over now and we are happy that the arrangement has worked out satisfactorily for all. The Minister's approval has been obtained and the position has been approved by CALM. We are now awaiting confirmation on the transfer of the position to CALM from the Department of Employment and Training. Following the transfer, Michael will be based at Woodvale and will be working in the Research Techniques Program.

During the past few months we have been able to assess Michael's capabilities and are confident that he is well suited to our research environment and will be able to contribute to the Division. He is a qualified physicist with a strong mathematics background (including statistics) and has years of experience in research and in computing. We are currently benefiting from Michael's statistical and computing skills. After the transfer, we are hoping that research staff will be able to utilise his expertise especially in the applied physics and mathematics areas.

## Brief Background

Michael obtained his PhD by research in diffraction crystallography, at the University of Western Australia. The group with which he worked with was instrumental in commissioning the first mainframe PDP6 for UWA (the PDP is now in a computer museum!).

He has been in the W.A. Public Service since 1977, and has experience in the following organisations and areas:

- |               |   |
|---------------|---|
| MWB           | Research in groundwater modelling and engineering applications.   |
| PWD-AD        | Research in Computer- Aided- Design in Architecture, project management with the PERT7 program (Maylands Police Academy, \$5m) & financial modelling for the QE II Medical Centre construction. |
| CALM          | Introduced SAS to the CALM users on the LISSC VAX.  |
| Empl & Train. | SAS applications to employment economics, seasonal adjustment of employment time series published - once a month in the media.  |



## Research techniques program

### Introducing Michael Yung

In June 1990, an arrangement was made with the Department of Employment and Training to have Dr Michael Yung placed at CALM - Woodvale under the staff redeployment scheme. Under the arrangement, a three months work program was drawn up and Michael was assigned to the program. His progress was to be monitored and at the end of the period, if all parties were satisfied, then an FTE (conditional upon the Minister's approval) will be transferred to CALM.

**MRD** Traffic accident research with statistical techniques, conversion of the Cobol (Total DB) accident information system to IBM Cobol (VSAM DB).

In addition, Michael has a fair amount of experience and expertise with the following computer softwares:

- \* DB2/QMF (IBM),
- \* Oracle (SQL\*PLUS, SQL\*FORMS, SQL\*ReportWriter)
- \* dBASE III plus
- \* Symphony
- \* Pascal (Turbo)
- \* Prolog (Turbo)
- \* WordStar, WordPerfect, WORD

We look forward to welcoming Michael as a permanent member of the Research Technique Program.

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## PC SAS - Can We Afford It?

The Research Techniques Program (formerly the Computing and Methods Programs) is looking for feedback from PC SAS users within the Research Division about the possibility of not renewing our PC SAS site licence.

Don't panic just yet. At the last Research Techniques program meeting we decided to renew the licence for another year at least. However, current budgetary realities are forcing us to reconsider this.

The problem is that a 1-50 person site licence for PC SAS costs \$9000 a year to renew. The next lower category is a 1-3 person licence (would you believe it) costing \$4200 a year to renew.

Our current understanding is that there are about 20 SAS users within Research, most of which are occasional users and have difficulty in using SAS/GRAPH because of its

complexity. There seem to be only about 6 people who use it rigorously.

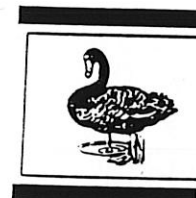
This situation doesn't seem to justify the 1-50 person licence. Alternatively, to satisfy the 6 heavy users we would need two 13 person licences costing \$8400 per year. This is no alternative!

Please bear in mind that SAS is (and has always been) available on CALM's VAX Mainframe cluster. It is more powerful and faster than PC SAS but not as functional. A terminal emulation program such as TGRAF would need to be used to produce graphics. Some familiarity with the VAX/VMS operating system and skills in file transfers using KERMIT would need to be acquired. Research techniques will structure some courses in these areas if the need arises.

In addition, there are PC alternatives to SAS. e.g. STATGRAPHICS or MINITAB. Neither of these packages are as comprehensive or powerful as SAS but they are a lot easier to use. They may actually suit some staff better, especially those who spend more time in the field than they do with their spouses.

Given the above situation we are inviting your comments, critical or otherwise. If we do not get sufficient justification from sufficient numbers of staff we will have no option but to drop the licence.

*Paul Gioia  
Computing Systems Clerk,  
Research Techniques  
Program.*



## SCIENTIFIC AND TECHNICAL PUBLICATIONS

The following have recently been approved for submission for publication:

Author(s): A Burbidge & P Fuller  
 Title: Possible effects of fox (and/or cat) predation on ground nesting birds in W.A.  
 For Submission to: CALM Landnote

Author(s): N Burrows & G Van Didden  
 Title: Patch burning Spinifex deserts using aircraft  
 For submission to: Journal of Wildland Fire (USA)

Author(s): G R Siemon  
 Title: Strength properties of laminated Jarrah and Karri crossarms  
 For Submission to: WURC Technical Report No 33

Author(s): G Keighery  
 Title: Floristics of System Six Reserves Pelican Point, Alfred Cover and Mulyu  
 For submission to: Kingia

Author(s): G W Chester & D S Crombie  
 Title: Interception of rain in forests: A review of study methods  
 For Submission to: Land and Water Research Notes (WA Steering Committee for Research on and use of water supply).

Author(s): A P Buchanan & G Wardell-Johnson  
 Title: Managing animal habitat using remote sensing and geographical information systems  
 For submission to: Proceedings of 5th Australian Remote Sensing Conference

Author: G J Keighery & J Alford  
 Title: Vegetation (of Lancelin-Dongara Islands)  
 For submission to: CALM Technical Bulletin

Author(s): R T Wills  
 Title: The ecological impact of *Phytophthora cinnamomi* in the SRNP  
 For submission to: Symposium Abstracts, Ecology Symposium, Melbourne 1990

Author(s): O W Loneragan  
 Title: Historical Review of Sandalwood (*S. spicatum*) in W.A.  
 For submission to: CALM Research Bulletin

Author(s): R J G McDonald  
 Title: Developing a solar, low cost, timber drying system  
 For submission to: WURC Technical Report No 23

Author(s): P Newby  
 Title: Practical aspects of producing Valwood<sup>(R)</sup> blanks  
 For submission to: WURC Technical Report No 26

Author(s): D S Crombie  
 Title: Leaf area, stomatal conductance and transpiration of jarrah (*Eucalyptus marginata* Donn ex Smith) Forest overstorey and understorey  
 For submission to: Australian Journal of Botany

Author(s): E M Davison & D J Coates  
 Title: *Cryphonectria* and *Endothia gyrosa* in Western Australia  
 For submission to: Mycologies Research

Author: J K Ruprecht, N J Schofield, D S Crombie, R A Vertessy and G L Stoneman  
 Title: Early hydrological response to intense forest thinning in South Western Australia  
 For submission to: Journal of hydrology

Author(s): G K Brennan, B R Glossop and W R Hanks  
 Title: Drying regrowth *Eucalyptus* using low temperature batch kiln  
 For submission to: WURC Report No. 20





## Research Project Plans

- No: 17/90  
Title: Effects of prescribed burning on small vertebrates in Tutanning Nature Reserve  
Officer in Charge: G Friend
- No: 18/90  
Title: Effects of prescribed burning on invertebrate communities in Tutanning Nature Reserve  
Officer-in-Charge: G Friend
- No: 19/90  
Title: Effects of prescribed burning on invertebrate communities in Durokoppin and East Yorkrakine Nature Reserves  
Officer-in-Charge: G Friend
- No: 20/90  
Title: Effects of three fire regimes on ground-dwelling invertebrates in Jarrah forest.  
Officer-in-Charge: G Friend
- No: 55/90  
Title: *Eucalyptus botryoides* family trial  
Officer-in-Charge: R Mazanec
- No: 56/90  
Title: Effect of initial espacement on growth and form of planted *E. diversicolor* seedlings on high quality karri sites  
Officer-in-Charge: Penni Hewitt
- No: 58/90  
Title: Attempts to fruit fungi from Karri

## ACTING ARRANGEMENTS

The Director of Research, Andrew Burbidge will be on Long Service Leave from 13 September - 15 October 1990 and the following acting arrangements will take place.

- S. Hopper, SPRS 17 - 21 September  
J. Armstrong, SPRS 24 - 28 September  
T. Start, PRS 1 - 5 October  
J. Armstrong, SPRS 8 - 12 October

## MORE COMO GOSSIP!!!

What's now left of our skeleton staff is settling back into a long forgotten normal routine. With 6 send-offs in 7 weeks, not only are the pockets running empty but so too are original ideas.

- Mike Cully was the first to go, transferring to Manjimup. John McGrath was next, transferring to Busselton - we sent him off after lunch to take his chances at the Burswood Casino. For Natalie Allday, we had an "all day" send-off. Following a feast of cakes for morning tea, and a strenuous kite flying session during lunch, Natalie slipped off quietly during cocktails after work, leaving a short video as a memento of the occasion.
- Des Carter was next on the list of our vanishing staff. Des, the head groundsman at Como, has been a prominent figure with the Department for 13 years and will be greatly missed. Following a BBQ lunch, well attended by SOHQ staff, Des was presented with a gold watch by Roger Underwood, a token of our appreciation.
- Dave Ward, now on his way to Belgium via Amman (Royal Jordanian Airlines - we not fancy but by Allah we cheap!!), attended his farewell in disguise as Hussein himself.
- Marie McDonald, our latest departure, presided over a farewell "cake baking" competition in her honour. After devouring all entries Terry Jones was declared the winner with his Apple, Walnut and Cinnamon cake.

So all in all its been a busy 2 months at Como Research - thanks to everyone for their continued enthusiasm.

Deanne

