

RESEARCH NEWS

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

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No. 3/89

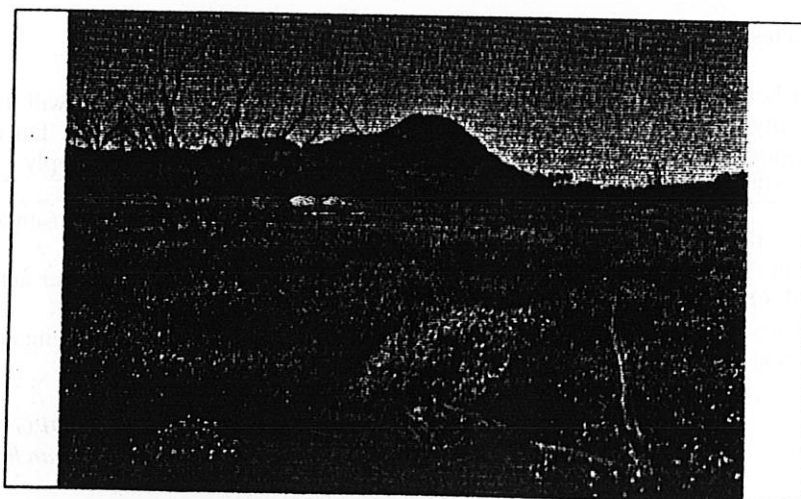
March 1989

Durokoppin Experimental Burn A Success

Three years pre-fire monitoring of small vertebrates, invertebrates, vegetation species composition and structure and fuel loads and distribution by staff from the CALM fire ecology program and CSIRO Wildlife and Rangelands Division culminated in a successful experimental burn on Durokoppin Nature Reserve in mid March. The burn went without a hitch with the main road verge and wandoo woodland retained unscathed as planned. The fire was lit under ideal conditions with a moderate to strong easterly wind and dry soil conditions producing a reasonably "natural" late summer burn. Post-fire monitoring of fauna commenced immediately following the burn and this plus vegetation work will continue in the longer-term.

Ken Wallace, Ken Atkins, Paul Brown and their staff are to be congratulated on a job well done. (Last year's practice paid off - I knew you could do it! but what about Tutanning!?)

Gordon Friend.



Information from the Research Division Policy Group Meeting

The 20th meeting of the Policy Group was held on Thursday 30 March 1989 at the Manjimup Research Centre.

Information from the meeting.

Interstate Travel Procedures

These will now be endorsed internally by the Divisional Manager (not RDPG) prior to being submitted to the Executive Director for official approval. A new form has been designed and will be circulated shortly to all Research Centres.

Overseas Travel

An application from Allan Burbidge to attend the 20th World Conference of the International Council for Bird Preservation (ICBP) and the International Ornithological Congress (IOC) in New Zealand next year was supported.

Contingency Fund

Further allocations from the contingency fund were made. Program Leaders have been advised of the outcome of these deliberations.

Funding of Long Term Field Trials

Neil Burrows addressed this item and explained the need for a program for the long term monitoring of plots. It was agreed that long term monitoring of plots should not be overlooked with staff movements. This should be the responsibility of the position, not necessarily the person. A policy/mechanism will be instigated to the maintenance and expansion of long term projects. Steve Hopper will be liaising with relevant Program Leaders in order to identify long term study sites.

Technical Officer Vacancies

It was agreed that when a vacancy arises among technical officers that any suitably qualified officer should be given the opportunity of transferring into the vacancy prior to advertising.

Whilst in Manjimup the RDPG met with the Regional Manager, Alan Walker where issues pertinent to Research and Operations were discussed. Concern was expressed over diminishing communication between the two areas. Ideas suggested to overcome this were:

- a regional field day

- training course on wildlife conservation
- taking Research Division seminars to country centres.

At the conclusion of the formal meeting a field trip to the Harris Road thinning trial in karri regrowth was conducted. The RDPG express their appreciation to Grant Wardell-Johnson and Penni Hewett for the organization of this trip.

ACHIEVEMENTS 1988

At the recent meeting the RDPG spent some time reflecting on the major achievements of the Division and Policy Group over the past twelve months. Major highlights of the year include:

- major advancement in trees on farm management
- commencement of Gibson Desert Nature Reserve aerial burning
- completion of the field work component of the Rainforest Survey
- Survey of Pine deaths in the Blackwood Valley
- outstanding research conducted into the Chuditch
- a degree of integration of three previously separate groups
- program reviews and Five Year Plan
- 50% expansion of entomology research unit
- commencement of a Marine Research Program
- significant contributions to Management Plans - in particular the Fitzgerald River National Park
- integration of the Herbarium into the Division and Department
- contributions to the Karri Research Review
- publication of many outstanding papers including the Jarrah Site Typing paper, Banksia Atlas, Phytogeography of Australian *Acacias*
- commenced silviculture work in the Albany area
- seminar series reorganized and running well
- research grants from major granting bodies including NAP, ABRS, ANPWS, WWFA

Without the co-operation and competence of many members of the Division the above achievements would not have resulted.

Acting Arrangements

The Divisional Manager will be absent from 20 April to 11 May (inclusive). During this period the following arrangements will apply.

20-28 April-	Per Christensen acting Divisional Manager
1-7 May-	Steve Hopper acting Divisional Manager
8-11 May-	Jim Armstrong acting Divisional Manager

The next meeting of the RDPG will be on Tuesday 18 April 1989 at the Como Research Centre.

SEMINAR

Thursday 20 April 1989

Equations for the Forest Fire Behaviour Tables for Western Australia

Presented by Judi Beck

Sneeuwjagt and Peet's forest fire behaviour tables for Western Australia are used to predict forest fire danger and as a guide to fire behaviour. This system provides for predictions for six forest types that are common throughout the southwest of the State. This work presents equations that have been derived from the data within these tables in conjunction with the bounds of the original research data and the bounds to which the tables have been extrapolated and applied successfully.

A new structure is presented for the methodology of the system to clarify and simplify its use. The equations and the prediction methodology presented provide a succinct and modular system that can be applied to automate the process of predicting fire danger or fire behaviour using a computer.

Venue: Training Centre
CALM SOHQ
50 Hayman Road
Como

Time: 3.00pm



SEMINAR

Friday 5 May 1989

Species complexes, concepts and conservation in Western Australian spider orchids (Caladenia)

Presented by Dr Stephen Hopper

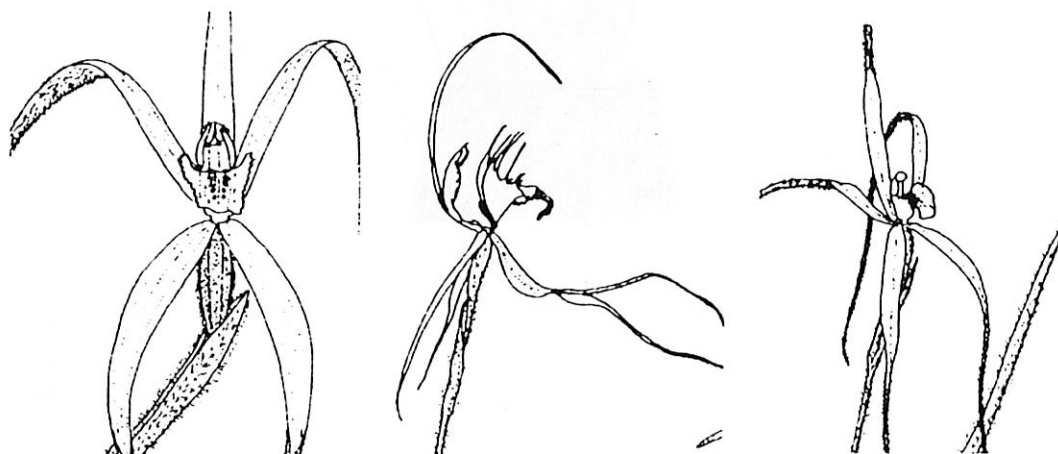
To preserve genetic diversity is one of four main objectives of the Western Australian State Conservation Strategy. This begs the questions of 'what is genetic diversity?' and 'how do we preserve it?' In practical terms, taxonomic descriptions will remain our primary means of identifying genetic diversity for the vast majority of organisms we want to conserve. In this seminar I wish to demonstrate the critical importance of seemingly academic and innocuous decisions taken by taxonomists on the wider activities of organisations such as CALM and of the volunteer conservation movement.

Western Australian spider orchids were first described by European botanists dealing with fragmentary dried specimens collected by explorers and interested naturalists. A typological approach was used, where species were recognised if they looked different enough (a matter very much in the eye of the beholder). This approach persisted until the 1970s, when a knowledge of fresh flowers and field observations was brought into the arena of taxonomic judgement. More recently, explicitly biological and population concepts have been applied to the taxonomy of these orchids. This has led from the interesting claim of one European botanist last century that Caladenia filamentosa, C. patersonii and C. dilatata are all one species, to my current view that each of these is a complex of many species.

The outcome of this philosophical shift in species concepts, combined with increasingly thorough exploration and collections, is that many rare and vulnerable species have been identified recently. The schedule of Declared Rare Flora had one Caladenia on it in 1980, four in 1981, 19 in 1987 and 18 in 1988. Two thirds of those now listed are unnamed members of species complexes. Many are the subject of active management programs within CALM, as well as attracting considerable interest in the national orchid fraternity.

Venue: Wildlife Research Centre
Ocean Reef Road
Woodvale

Time 3.00pm





ANZAAS

Theme: Global Change and the Southwest Pacific

The 59th congress of ANZAAS will be held in Hobart, Tasmania, from 14 to 16 February 1990. The Congress will take place on the Campus of the University of Tasmania which will celebrate its centenary immediately preceding ANZAAS from 10 to 13 February 1990.

SCIENTIFIC PROGRAM

The theme, Global Change and the Southwest Pacific, has been chosen to coincide with the commencement of the International Geosphere-Biosphere Program (IGBP) by the International Council of Scientific Unions in 1990. This 10-year program, involving most of the major scientific organisations and a growing number of national academies of science, is the most comprehensive, collaborative research program ever undertaken. The global changes it seeks to investigate are of outstanding importance for the future of humanity.

The 59th Congress will focus on the changing global environment with special reference to the Southwest Pacific. It will encompass not only physical, chemical and biological changes but concomitant changes in human populations, the likely consequences for society, and the implications for governments and planning.

The Congress, supported by the Australian National Committee for the IGBP of the Australian Academy of Science, aims to bring together from Southwest Pacific nations specialists interested in global change. The program will include specialist ANZAAS lectures, plenary lectures by distinguished scholars on the Congress theme, paper sessions, symposia and workshops. Particular prominence will be given to workshops dealing with current and future research on global change within the region.

OFFER OF PAPERS

The Organizing Committee invites authors wishing to present papers on any aspect of the Congress theme to submit details as soon as possible and an abstract (400 words) no later than 30 June 1989.

If anyone wishes any further information or wishes to register their interest with ANZAAS, please give me a ring (4055105) and I'll send you a copy of the circular.

JEANETTE GILMOUR.

Short of Time....?

Management Tips

Set the example

Supervisors set the model for their employees. Before you reprimand someone, ask yourself, "As a Supervisor, what example am I setting in this area?"

Your appearance will influence their appearance. Without saying anything directly, many of your people will take the lead from you. Then, peer pressure will influence several others. If you do have to speak to an individual, you will then be in a better position to do so.

Your work pattern will set the tone for the manner in which your people think of their duties. If you leave projects until the day before deadline, you really can't expect your people to be organized and on top of their work.

Your attendance and punctuality shows your staff what importance your organization's places on being there and being on time. Don't let the weather or the day of the week influence your attendance.

Your attitudes towards your employer and your job is contagious. This attitude is transmitted to others automatically. If you want to work with a group of people who demonstrate a positive attitude, it is up to you to get the attitude rolling.

Your listening skills will be borrowed by your people and your own superior. If you want them to listen to you, you had better listen to them.

Your innovativeness and quest for improving methods and working relationships will bring out the creativity in your people. And when their ideas don't work out, praise them for thinking of and trying out their ideas.

Your pursuit of excellence will determine if your people will be excellence-minded.

Interviewing Hints

There are several stages to an employee interview. If you keep the steps in order, you will have more comfortable and more successful interviews.

1. **PLANNING.** You can relieve a lot of the tension you and the interviewee feel by spending an appropriate amount of time getting ready. When you are in control and know what is going to happen, there are no surprises.

2. **ESTABLISHING RAPPORT.** Take three or four minutes at the very beginning for some chit-chat to establish a "no-threat" communication atmosphere.

3. **GETTING INFORMATION.** After brief introductory remarks by you to set the ground rules, ask questions to uncover what the interviewee thinks about the situation.

4. **GIVING INFORMATION.** Now you should feel free to explain your thoughts and or ideas on the situation.

5. **SUMMARIZING AND CLOSING.** Review the key points you two have discussed and confirm understanding of the action to be taken by each of you. Outline the next step(s).

Generally, interviews should be "win-win" experiences. They provide each party an opportunity to communicate, straighten out any misunderstandings, and should leave each participant in a positive frame of mind.

Scientific and technical Publications

The following scientific and technical publications have been approved for submission for publication this month.

Author(s): M I H Brooker and S D Hopper
Title: A taxonomic revision of *Eucalyptus wandoo*, *E. redunca* and allied species (*E. series Levispermae* - Myrtaceae) in Western Australia
For submission to: Nuytsia

Author(s): G J Keighery
Title: *Psammodroma* (Celastraceae); A Taxonomic Review
For submission to: Nuytsia

Author(s): G J Keighery
Title: Biological notes on *Schoenus capillifolius* (Cyperaceae); a rare and unusual sedge
For submission to: Nuytsia

Research Project Plans

The following research project plans have been approved this month.

No: 3/89
Title: Effect of thinning and fertilizing on the growth and form of crop trees in a 21 year old stand of karri re-growth of community type stoate.
Officer in Charge: Penni Hewett

NO: Extension to 9/86
Title: Lyctus Study
Officer in Charge: Garry Brennan

The Following Have Recently Been Published:

Burbidge, A H and L J Boscacci. A spring reconnaissance survey of the flora and fauna of the southern Beekeepers Reserve. CALM Technical Report No. 22. March 1989.

Challis, D J Survey of solid wood sizes used by the furniture industry in Western Australia. WURC Report No. 9 March 1989.

Research Group on Groundwater Management. The Management of shallow Groundwater in the Perth metropolitan area. Final Report to the West Australian Water Resources Council February 1989.

Bartle, J Forestry and Irrigation Developments : New answers to old problems. Proceedings of Swan Coastal Plain Groundwater Management Conference. pp 83-86.

Halse, S Wetlands of the Swan Coastal Plain - Past and Present. Proceedings of Swan Coastal Plain Groundwater Management Conference. pp 105-112.

Hnatiuk, R J and B R Maslin. Phytogeography of *Acacia* in Australia in relation to climate and species - richness. Aust. J. Bot., 1988, 36, 361-83.

Maslin, B R and L Pedley. Patterns of distribution of *Acacia* in Australia. Aust. J. Bot., 1988, 36, 385-93.

Shearer, B L and J T Tippett. Distribution and impact of *Armillaria luteobubalina* in the *Eucalyptus marginata* forest of south-western australia. Aust. J. Bot., 1988, 36, 433-45.

Sampson, J F, S D Hopper and S H James. Genetic diversity and the conservation of *Eucalyptus crucis* Maiden. Aust. J. Bot., 1988, 36, 447-60.



A NEW PAPER SHREDDER FOR WOODVALE STAFF

Woodvale staff have acquired a new paper shredder - without even having to fight the bureaucracy for funds.

The name of this paper shredder is "Sinbad" - to those familiar, Sinbad is a Western Grey Kangaroo resident of Woodvale - he was raised by the previous Ranger, Allen Mangini.

Sinbad has been found in the office reception area sorting out envelopes and eating correspondence and papers out of the pigeon holes. He really favours the "Government Gazette" - many a concerned word has been said for the health of Sinbad after getting his teeth into that!

Sinbad is also into tree-felling. The recent demise of a Melaleuca and Lemon Scented gum was due to Sinbad's efforts. Mike Churches, the ever reliable Woodvale Ranger, has also reported that he has rescued numerous terrified cleaners cornered by the curious Western Grey.

For readers who think Sinbad isn't getting fed a look at the Dichondra around the deck will prove you wrong. Sinbad and his mates must be congratulated at doing a good job in helping Mike prune the surrounds of the Woodvale Nature reserve.



STAFF CHANGES IN THE LIBRARY

You will recall from last month's Research News that Stephanie Moran has resigned from the library because she will be moving to Sydney after her marriage. Stephanie's replacement is Lisa Wright who has been working in the Library Services Branch of the Education Department since 1980. Lisa has a B.App.Sci in Librarianship as well as a Dep. Ed. apart from providing general assistance to us, the library users, she will also be assisting with Inter-library loan requests as well as helping with the complete recataloguing of the library. We hope that Lisa will enjoy working at Woodvale; it must be one of the most pleasant library locations in the state.

There is also another change, Marie Ward, who has been working as a temporary assistant helping with the recataloguing, resigned in March to take up a position in the State Planning Commission.

Elaine Davison
(your temporary library representative)

Have you Heard.....?

Baby Boom!

Anne Taylor "the Banksia Atlas Lady" had a baby girl, Nell Catherine, on Tuesday 21 March. (Both went home two hours after delivery at the Midland Hospital!)

Tony Friend is the proud father of a "bigger than a numbat" baby boy, James Sebastian. Tony reports that he's surviving life in the "changed" household.



New Appointments

NEIL GIBSON will shortly be taking up residence at Woodvale. Neil is the Research Scientist appointed from the Bailey Committee Inquiry. Neil will be working with the Biogeography team.

PATRICK PIGGOTT has been appointed to the position of Research Scientist at Narrogin. Patrick will take up the appointment within the next couple of weeks. His key areas of responsibility will be with the establishment, management and performance of trees and other vegetation in agriculture areas.

Resignation

Senior Research Scientist, Joanna Tippett, has recently advised of her resignation. Joanna will be fully occupied on her Walpole farm and looking after her young family.

"PHILOSOPHY CORNER"

It Pays to Repeat yourself

Typical memory retention curves show that within two days people forget 20 per cent of what they've learned, within four days, 40 per cent within nine days, 60 percent within 30 days 74 percent.

If you give an employee some fairly complicated information twice a week, therefore, you have to go over only one-fifth of your previous message. If you do so only once a week, the employee remembers only half what was said before. If you only relay the information once within the period of one month, the odds are your employee will not remember the message at all. so don't be afraid to repeat your instructions occasionally.

It isn't so much the things that go in one ear and come out the other, it's the things that go in one ear, get all mixed up and spill out of the mouth.

The thing most frequently opened by mistake is the human mouth!

	ISSUE	DEADLINE	DISTRIBUTION
DEADLINE FOR NEXT ISSUE	APRIL 1989	26 APRIL '89	EARLY MAY