

# CALM NEWS

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DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

APRIL-MAY 1995



- ◆ Safety in the tree tops - page 2
- ◆ New mallee oil extractor - page 3
- ◆ CALM 10th anniversary feature - pages 4 and 5



- ◆ Rare wildflower found - page 6
- ◆ New recreation site at Ten Mile Brook Dam - page 6
- ◆ Takeaway rubbish a winner - page 7



- ◆ Base camp at Peron Peninsula - Page 7
- ◆ Foxes on the run - page 7
- ◆ Homestead renovated - page 8

## Mallee muncher a money maker



CALM senior technical officer Tim Birmingham demonstrates his recent invention — the mallee muncher at the Woodanilling Field Day. See story on page 3. Photo courtesy of *The Farm Weekly*

## Treetop travel begins soon

THE construction phase of a major project that will help conserve and protect the massive tingle trees in the Valley of the Giants near Walpole, and provide visitors with an outstanding recreational experience, is now under way.

When completed the project will ensure that this popular site will be able to cope with the increasing numbers of visitors who will gain a much greater appreciation of the tingle forest and its ecosystems.

The project involves building protective boardwalks and sealed paths, providing innovative visitor information, carefully designed roads and carparks and a tree canopy walk in the valley which attracts about 130 000 visitors a year.

CALM expects this number to grow markedly as more people visit what is one of the State's greatest natural attractions.

A big threat to the area is compaction of the tree root systems along existing walk trails. The protective boardwalks will minimise the impact of visitors.

The tree canopy walk will enable visitors to experience the red tingle forest from a new perspective.

The design of the elevated walk, up to 38 metres above the ground and 600 metres long, will be in harmony with the forest and will consist of a series of connected steel walkways mounted on steel poles, that will be independent of the trees.

The walk will take people among the tree tops and over some of the distinctive features that cannot be readily appreciated from the ground.

Parts of the walk also will be accessible for people in wheelchairs.

Because machinery will be operating in the area and the safety of visitors is paramount, the existing site has been closed until the end of May.

## The great chuditch chase intensifies

AN intensive trapping expedition to find chuditch in two areas of the eastern wheatbelt got under way in April.

The aim of the trapping expedition is to find out how prevalent the species is in the semi-arid zone, and to capture several animals for a captive breeding program that is part of the recovery plan for the animal. The survey was conducted over two weeks.

The chuditch was widespread across most of Australia at the time of European settlement. Because of land clearing, predation and competition for food from foxes and feral cats, the chuditch now only occurs in the south-west of Western Australia. It is a declared endangered species.

CALM staff are volunteering their time and meeting much of their own costs to undertake the survey which is over and above the department's regular works program for the year. CALM provided traps, vehicles, fuel and other equipment.

Project co-ordinator and Swan Region ecologist Paul Brown said CALM staff from the Goldfields, Wheatbelt, Swan, South Coast, Southern Forest and Central Forest regions, with help from CALM volunteers, set about 2300 traps each afternoon and checked them early the next morning.

Several chuditch are being retained for the captive breeding program, which CALM instigated at Perth Zoo.

Environment Minister Peter Foss, who announced the project, said it was a major expedition, and the fact that about 25 CALM staff were prepared to camp in the bush and give their time to this project, reflected a high degree of dedication and commitment to the conservation of rare and endangered animals.

The first week of the survey centred on Southern Cross. In the second week, the traps were taken south to the Lake Grace region, where they were set at Dragon Rocks, Dunn Rock and

Lake Magenta.

A survey involving 1500 trap nights last June in the Lake Magenta Nature Reserve had resulted in just one male chuditch being trapped. This particular animal had been caught and tagged in a survey in 1990.

The captive breeding program at Perth Zoo follows work CALM started at Dwellingup in 1985, when initial breeding research was carried out. Chuditch that were born at the Zoo have since been released into the wild at Julimar Conservation Park, north-west of Toodyay.

Researchers believe that chuditch from the semi-arid zone are needed if populations of the animal are to be re-established in the drier parts of their former range, where fox numbers have been controlled.

The chuditch recovery program is being sponsored by CALM, Perth Zoo, The Australian Nature Conservation Agency, Alcoa of Australia and The World Wide Fund for Nature, Australia.

## Project Eden under way

A plan to restore the biological diversity of the State's only World Heritage Area—Shark Bay—is now well and truly under way.

The plan is Project Eden which aims to create a haven for rare and endangered native animals by effectively controlling foxes and feral cats on Peron Peninsula. The project also will help develop the region's opportunities for nature-based tourism.

On April 10, CALM began laying baits treated with the naturally occurring poison known as 1080.

The baits, which were dropped from the air over the 100 000 hectares of the peninsula, have been used very successfully in Operation Foxglove, CALM's predator control program over almost 500 000 hectares in the northern jarrah forest between Julimar and Collyer.

Native animals have evolved alongside the Gastrolobium plants which contain the poison and have developed a high tolerance to it. But it is deadly to foxes and cats.

Foxes and cats have devastated many native animal species on the peninsula to such an extent that some now survive only on nearby offshore islands.

Research by CALM and other agencies has shown that, when fox and feral cat numbers are controlled, populations of small native animals increase dramatically.

Local species that now survive on islands such as Bernier and Dorre are the boodie, rufous hare-wallaby, banded-hare wallaby, and western barred bandicoot. Other species that once inhabited the region are the chuditch, woylie, red-tailed phascogale, stick-nest rat and mulgara (a marsupial carnivore).

The plane used for the baiting used satellite-based navigation systems that enabled baits to be dropped accurately. A bait-free buffer is being retained around Denham township and the Monkey Mia facilities to protect family pets from inadvertently picking up a bait.

Signs have been posted so that people will know which areas have been treated.

• Continued on page 2





There hasn't been a month, I believe, during the 10 years since CALM was formed, that there hasn't been some prediction or rumour about our demise. Recently, a number of people approached me expressing some concerns that once again we were for the chopper.

Some of these concerns may have originated from reports in *The West Australian* about our Minister's proposal to reinforce the roles of the Lands and Forest Commission and the National Parks and Nature Conservation Authority.

The Minister discussed with me his ideas about these two bodies before the press reports. It was reported correctly in the press that I supported the proposal, and in fact, volunteered to vacate the Lands and Forest Commission, because I agreed that it would contribute to emphasising that CALM's role was to implement government land and wildlife management policies on behalf of the people of Western Australia.

The political policies under which management is undertaken are the responsibility of government. For example, we are constantly denigrated because some sections of the community object to logging in native forests.

But the fact is that governments of all persuasions have supported logging in native forests. Mr McGinty and Mr Minson endorsed the forest management plan, when they were Ministers for the Environment, under which CALM operates.

Far from being under threat, CALM has been acknowledged by the Premier, and the Minister Assisting the Premier on Public Sector Reform, George Cash, as a leading agency in implementing the public sector reform proposals of the Government. We have also been acknowledged by the Government as being at the leading edge of workplace reform in the public sector.

It has been a hectic 10 years for CALM, but I do not believe that there is anybody who works for this organisation who does not feel proud of what has been achieved.

While looking back occasionally and feeling satisfied is good, what is more important is that we are continuing to develop and implement innovative programs across the whole spectrum of conservation and land management activities. If anybody has any doubts (and I am sure nobody in the Department has) have a look at the projects that are described in this issue of *CALM NEWS*.

While there have been many achievements, we have, of course, made mistakes and neglected to do things that we should have done. That's an inevitable consequence of the fact that we are an organisation that is on the move and achieving things.

One of the things I deeply regret that I haven't done enough of is thanking everybody who has contributed to the success of CALM. I try to get around to thank people individually; inevitably I miss many, but please know that I do appreciate how lucky we are to have the people we have working in CALM.

Dr Syd Shea, Executive Director

# Making treetops safely accessible

SOUTHERN Forest Region recreation officers are giving considerable thought to the design of facilities which will make Gloucester Tree, Diamond Tree, and Bicentennial Tree safely accessible to members of the public fit enough to climb them.

Manjimup District recreation officer Tim Foley said that it was important that we advised visitors of the risks they were taking in climbing the tree lookouts, and for CALM to take every precaution to ensure the safety of visitors to these attractions.

"At Gloucester Tree CALM is charging a fee of \$5 per car for visitors to gain access to the picnic site and climb the lookout tree," Tim said.

"The revenue collected helps meet CALM's costs for maintaining the facility and providing interpretive information.

"We are looking at ways of implementing a similar entry fee for visitors to Diamond Tree."

Visitor Risk Management Taskforce members John Ireland and Dennis Hilder recently reviewed safety issues associated with visitor use of the lookout trees from the perspective of public risk liability.

Recreation sites such as these are examples of situations where, to fulfil its legal duty of care, CALM needs to take all reasonable measures to ensure that visitors are



Taking a break on the protective platform at the base of the Diamond Tree are, left to right, forest worker Peter Hope, Manjimup district manager John Lloyd, forest worker John Gore and forest ranger and recreation officer Tim Foley. Photo by Rodney Simmonds

aware of any potential hazard, and informed about how they can minimise the risk of incurring injury during their presence on CALM-managed land.

The increasing prevalence of litigation, and the high payout sums awarded by the courts for claims involving serious injuries, has alerted land management and recreation service providers Australia-wide, to the

need for careful consideration of their 'duty of care' and visitor risk management mandate.

In CALM, a *Draft Visitor Risk Management Policy* has been distributed for comment to branch, regional and district managers, rangers-in-charge and other key staff involved in the Recreation and Tourism Program.

The draft policy aims to help staff to better

manage visitor risk and public liability issues throughout the department, and to provide a framework within which CALM will manage risk assessment, risk control, and risk financing components of our overall Risk Management Program.

In preparing the draft, land management and conservation agencies in other States were contacted for information

about their policies and strategies.

The CALM Taskforce intends to continue liaison with this network and to contribute to development of nationally consistent policies, prescriptions and procedures regarding risk management.

For further information, please contact John Ireland on (09) 334 0219 or Dennis Hilder on (098) 81 4055.

## Project Eden under way

From page 1

A fence is to be erected across the 3 km wide Taillifer Isthmus, south of Shell Beach as a further barrier to minimise reinvasion by foxes, cats, goats and rabbits.

The fence design will enable vehicles on the main road to pass without stopping but feral animals won't be able to get through at that point. Construction of the fence begins later this year.

Project Eden also involves a new technique in native animal conservation

programs—tracker dogs. Two female Rhodesian ridgebacks have been 'recruited' to CALM's project team. The dogs—Soula and Sophie—have been trained as trackers to scent cats and foxes 'on the wind' and are under the constant control of CALM officer Ray Smith.

Ray is using the dogs to track individual foxes and cats on the peninsula.

CALM is assessing their potential as a management tool in controlling feral animals in other parts of the State.

## Dolphin-feeding change

VISITORS to Monkey Mia will still be able to enjoy interacting with dolphins, including hand-feeding them under the supervision of rangers, but feeding them from boats in Shark Bay Marine Park will be prohibited.

This follows moves to ensure new feeding regimes for the dolphins at Monkey Mia are not disrupted by indiscriminate feeding elsewhere in the area.

CALM implemented a new feeding regime last year following an inquiry by prominent marine scientist and former

Director of Nature Conservation, Dr Barry Wilson. The Department initiated the study because of an abnormal number of deaths among unweaned dolphins, and some behavioural problems among adult animals.

With agreement from the Shire of Shark Bay, the key recommendations of Dr Wilson's report were immediately implemented so that no male calves were hand-fed and females were not fed while they were suckling. Hand feeding from boats in the Monkey Mia area also was prohibited.

But there is concern that

people using boats elsewhere in the Shark Bay Marine Park are still hand-feeding dolphins and this could compromise the efforts being made at Monkey Mia.

Because of this, a closed season on unsupervised hand-feeding of dolphins in the park has been declared under the Wildlife Conservation Act.

Activities such as human interaction with dolphins is something that can make a significant contribution to increasing the community's awareness of conservation particularly in the World Heritage-listed Shark Bay area.

## CALM Classified

THIS column is divided into sections dealing with 'for hire', 'for sale', 'surplus equipment', 'swap', or 'wanted'. If you have any equipment or requirement that you wish to advertise through this service, please send or fax typewritten details to:

The Editor,  
CALM NEWS,  
Corporate Relations Division

### FOR SALE

Phone Robyn or Barb at Dwellingup Science and Information Division on (09) 538 1105 for the following: Bradford gold insulation batts, 19 packs of eight, 4.5 sq.mtre coverage per pack, R2.5 in-

sulation rate, \$25 per pack.

One-and-a-half rolls black poly pipe, 50mm x 2.9mm x 100m. \$150 the lot.

Canon NP3725 photocopier in good working order \$1500.

## LETTERS... LETTERS... LETTERS... LETTERS... LETTERS... LETTERS... LETT

My wife and I recently returned from a lovely camping holiday through the south-western portion of our lovely State.

Please accept our heartfelt thanks for all your organisation has done in the form of the provision of camping areas, historical signs, maps, etc.

Some of the camps we made use of were Alexandra Bridge, Sue's Bridge, (who was Sue?), Warren National Park, etc. We also discovered Beedelup Falls, Jewel Cave, Brockman Saw Pit, Ellenbrook Homestead, the Moon Crossing and spent a lovely day in York.

Following our return we purchased a copy of *Wild Places, Quiet Places*, beau-

tiful!! Any other information you may have and which could assist us with our future camping trips, would be much appreciated.

I have one question. The sign near the Brockman Saw Pit gives a date of 1822. We understood that the first settlers did not arrive in Western Australia until 1829?

Your comments in due course would be very much appreciated.

Thanking you in anticipation,  
John C Luk  
Geraldton.

CALM's Busselton district manager Roger Banks tells us that Sue's Bridge was named after the wife of Ian Morrison, former Forests Department district manager at Nannup. The same gentleman caught pneumonia while building another road near Lake Jasper on the south coast. Pneumonia Road still can be found on some maps.

These roads were built by the then Forests Department and funded by Federal Government grants. Roger's source of information was Lyle and

Alan Guthridge, who worked with Ian Morrison about 40 years ago.

With regard to the query on Brockman Saw Pit, staff at the Battye Library confirmed that the first settlers in WA arrived in the Amity at King George Sound in 1826 to settle in Albany.

The first settlers destined for Perth arrived in the Parmelia at Garden Island in 1829. The sign bearing the date 1822 remains a mystery. Perhaps one of our readers can help solve it?

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# Tim and his muncher move mountains of mallee



Deputy Premier and Minister for Commerce and Trade Hendy Cowan, second from right, hears Tim Birmingham describe his mallee oil extractor's attributes. Looking on are Mr Cowan's personal assistant Kate Kent and Agricultural Region MLC Murray Criddle. Photo by John Bartle

NEARLY 400 farmers have turned out in recent weeks to hear the latest on CALM's eucalyptus oil program, and to see demonstrations of harvesting and extraction of eucalyptus oil from early plantings of oil mallees.

The farmers attended oil mallee field days organised by CALM and the Department of Agriculture at Woodanilling, Kalannie and Canna, and were particularly interested in including oil mallees as a viable cash crop in their tree-planting program.

Among the demonstrations that attracted keen interest was a prototype mallee harvester, developed by

CALM senior technical officer Tim Birmingham. Tim developed the harvester, known as 'the mallee muncher' by modifying an old wheat harvester in CALM's Dwellingup workshop.

This, in conjunction with a still, developed by Phil Scot from the Department of Agriculture, was used in the demonstrations to extract more than 200 litres of eucalyptus oil from about 10 tonnes of mallee leaf material.

Batches of this oil have been given to several large international companies for early market development.

In 1993, CALM's Vegetation and Tree

Planting Advisory Service, (VATPAS), in association with interested farmers and the Department of Agriculture, embarked on large-scale plantings as a beginning to the establishment of 5 000 hectares in each of six centres, or planting cells.

They are Canna, Kalannie, Wickpin, Narembeen, Woodanilling and Esperance.

Also in 1993, more than 200 000 oil mallee seedlings were planted, increasing to more than one million seedlings in 1994, with nearly three million seedlings expected to be planted by the end of the 1995 planting season.

The seedlings are offered to the farmers in the planting cells in a share-farming contract with CALM.

All plantings are integrated into the farming system, where they will provide the maximum landcare benefit, as well as a possible income from the sale of eucalyptus oil, should the industry develop.

As well as the large scale plantings, more than 30 oil mallee species' trials and 12 genetic improvement trials have been established throughout the Wheatbelt to further our knowledge on species selection and planting layouts.

The plantings will also provide a workbase for further tree-breeding to increase vigour and oil content.

Farmers from the planting cells recently formed the Oil Mallee Growers' Association of WA. The Association executive is made up of representatives from each of the planting areas, as well as representatives from CALM and the Department of Agriculture.

The aim of the Association is to co-ordinate the early development of a WA eucalyptus oil industry.



CALM senior technical officer Rick Giles demonstrates planting layouts of mallees to farmers at the Woodanilling Field Day. Photo by Wally Edgecombe



CALM senior technical officer Wally Edgecombe, right, and Woodanilling farmer Eric Crossley with a jar of eucalyptus oil. Behind them is the extraction still.



Local oil mallee planting coordinator for CALM Max Waters, standing in two-year-old 'mallee alley' at Kalannie. Photo by Tim Birmingham



Tim Birmingham explains how the mallee muncher was developed, at the Woodanilling oil mallee field day. Photo by Wally Edgecombe

## CALM's forest management gains support

**MANY people in the community support the way in which Western Australia's forests are being managed.**

They include many prominent people such as Wesfarmers Limited Managing Director Michael Chaney, who wrote the following letter in February to Wesfarmer employees throughout Australia:

"There has recently been a lot of reporting in the media about woodchip export licences and logging in native forests.

Most of you would be aware of the involvement of our group in woodchipping through Wesfarmers Bunnings Limited, but many employees outside that company are not aware of the exact nature of our activi-

ties. In these circumstances it is possible that some people may have concerns about whether, in fact, the company is acting in an environmentally responsible way; and about the future of our native forests generally.

In order to help you understand Wesfarmers' involvement in this industry, we are preparing an information package which will be sent to all group employees in the near future.

I encourage you to read this information and to raise any queries you may still have with the relevant people in Wesfarmers Bunnings.

Let me take this opportunity to assure you that I would personally not accept any involvement by Wesfarmers in

activities which denied future generations the standard of forests which we enjoy today.

I have personally spent a lot of time in the WA forests examining how they are managed by the Department of Conservation and Land Management (CALM) and as a Western Australian I am very proud of what is being done.

Unfortunately, it is not possible to give all our employees that same opportunity, but I hope that the information package you receive will help make up for that.

In the meantime, I would like to convey to you some of my observations on this issue.

Firstly, as the name suggests, the department of CALM is primarily

concerned about conservation.

All of the CALM employees I have met have a genuine concern for the forest and the primary thrust of their management plan is to ensure that future generations possess forests of the same quality as we have today.

The message which environmental extremists push is that our old growth forest are being destroyed forever.

That is dishonest and untrue. More than one third of WA forest are secured in reserves that are managed for nature conservation.

Of the remaining area set aside for timber production, only one to two per cent is harvested in any one year and every area harvested is regener-

ated so that yields can be sustained indefinitely.

WA forests are growing at a faster rate than they are harvested.

WA forests are not logged for woodchips. Forest harvesting is managed to produce sawlogs and the by-product residues, from both the forest and sawmills, are chipped for use in the paper industry.

They provide a very useful source of export income for Australia.

One day we hope to use these chips for pulp production in Western Australia but this will require a larger resource.

That is why we have been carrying out a very active hardwood plantation programme over the last five years.

The CALM pro-

gramme is not one of compromise. It is a highly responsible activity designed to ensure that our forests are secure and that we can at the same time enjoy the economic benefits of timber production.

These benefits include not only jobs for the workers concerned but also national income for expenditure on things we take for granted like education and health care.

Despite these facts the Federal Government has put political considerations first and has nominated 66 harvesting blocks in WA to be excluded temporarily from logging.

This flies in the face of all the expert reports conducted to date, it is inappropriate and it would severely reduce log supply for WA forest companies.

The Federal Government has stated that these blocks are being reassessed over the next eight weeks but we need to be sure that this occurs.

One very effective way you can help Wesfarmers Bunnings and your fellow employees is to phone or write to your Federal Member of Parliament and voice your concern.

Your information package will contain draft letters to help you do this. Another way is to tell your friends and family members the facts about the debate.

I strongly encourage you to become informed about these issues and to stand up for a balanced approach to the management of our forests.

Yours sincerely,  
Michael Chaney."



# CALM's tenth anniversary - look

Ten years ago, Ian Herford, Alan Sands and Neil Taylor replied to one of CALM's first advertisements for staff; it was for Parks and Reserves Officers, one for each of the Northern, Central and Southern Forest

Regions. They were the first recruits to the then CALM, appointed to the Northern Forest Region, Alan Sands to Central Forest, and while each one's work

## Neil bowled over by region's size

NEIL Taylor was an accountant who decided the 'great indoors' were too stifling, so after gaining his Diploma in Recreation Planning, he worked as a park ranger with the Australian Capital Territory Conservation Service, followed by a spell as manager at Jervis Bay Nature Reserve.

Jervis Bay was probably an ideal training ground for any challenges CALM might throw at Neil.

One million people a year visited the 2200-hectare nature reserve that included pine plantations, an Aboriginal settlement, three campgrounds, a school, a police station, a missile range and an 800-hectare marine park that also housed the Royal Australian Navy's Cadet Training Centre and contained 12 km of moving sand dunes.

"I was responsible for about 22 full-time, permanent staff, and all the hassles that entails, so it was with relief that I looked forward to working with CALM where I had far less staff responsibilities.

"It meant I could spend more time on actually getting things done.

"My first over-riding impression was of the vastness of CALM's Central Forest Region, (1.2 million hectares) and the amount of time I spent travelling.

"Even before I set out for the day's destinations, I had to travel 100 km from my home at Yallingup to the office in Bunbury; generally, I could visit no more than two districts in any one day.

"At Jervis Bay, there was little formal training offered, and we flew by the seat of our pants, learning mostly by trial and error.

"With CALM, training has been a high priority, and we've been able to take advantage of many training courses and seminars, including attendance at important conferences, whether held in WA or interstate.

"The three of us were 'new kids on the block', so

we looked to each other for moral support out of which a firm and lasting friendship has developed between us.

"Major initiatives have relied on a diversity of skills among a small number of staff.

"This certainly has been the case with the development of the Lower Collie Valley on Wellington Dam, where a small campground has been enlarged and fees are being collected there for the first time.

"The largely saline dam has been developed for recreation purposes, while water for human consumption will come from another dam, completed recently.

"The VISTAT (visitor statistics) program, is another major initiative being carried out in our parks' improvement program.

"Another interesting initiative of an historical nature, has seen the installation of hand-operated water pumps in the bush, that have met with an enthusiastic response from park visitors.

"Central Forest was the first region to introduce the 'no bins—please take your rubbish home' policy, which met with very little resistance from visitors, and staff found it a great time saver.

"Before this, garbage collection could take a whole day, much of it travelling to the more remote areas where, even if there was very little litter in the bins, the collection still had to be done.

"My career with CALM continues to be most satisfying and challenging, but I'm fortunate to have the support of my wife, Gail, who, apart from caring for our children, works as an interviewer for the Australian Bureau of Statistics.

"We now live only five minutes drive from the coast at Injidup near Yallingup, a great escape for us, and for our three terrific kids: Alison (15), Heather (13), and James who is nearly 7 years old.

"Over the past ten years, I have seen myself move from recreation planner on a regional basis, to that on a district basis.

"It's been a deliberate choice on my part, and one with which I feel very comfortable. (Besides, I can now cycle to and from work!)

"On balance, I lean towards working at the grass roots rather than at the policy level, but that doesn't mean I have scaled down my ambitions, one of which is to see the 120-km Cape Naturaliste to Cape Leeuwin walk trail completed.

"Looking ahead, I'd like to see CALM making more use of volunteers, particularly at recreation sites, and while training volunteers is very time consuming, with so few staff available to carry it out, it is well worth while where it can be done.

"I've found that these wonderful people are the best allies CALM possibly can have.

"I believe the CALM Act needs to be modified to give field staff greater authority to collect fines on the spot for minor common offences, such as taking timber from State forests, bringing dogs into national parks, driving four-wheel drive vehicles on dunes and so on.

"I would also like to see the Conto campground in the Boranup Forest area revamped to accommodate a greater range of camper types, such as tents, including on-site safari tents, and cabins.

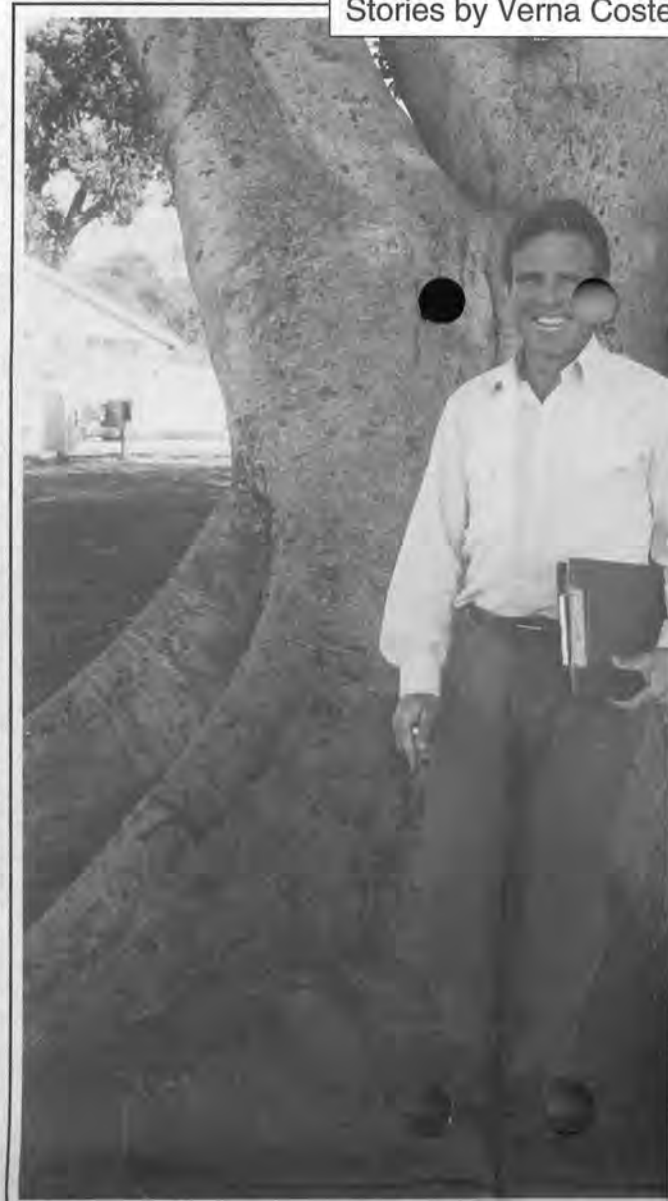
"One of the most recent and most exciting projects in which I'm involved is as chairman of a committee developing a cave interpretation centre to be built adjacent to Lake Cave at Margaret River.

The project is budgeted at \$1.5 million and we have already secured substantial grants towards having the building open by December 1995.

"Although the project is on Tourist Bureau land, it will have substantial spinoffs for CALM's management of wild caves.

"The past decade has seen the Department achieve a great deal, and while there's still much to be done, there's no doubt in my mind about the future for the good ship CALM and all who sail in her—it looks exciting and challenging."

Stories by Verna Costello



Alan Sands pauses outdoors on one of his rare visits to CALM's  
Photo by Verna Costello



Neil Taylor looks at effects of coastal erosion at Leeuwin-Naturaliste National Park. Photo by Nick Way, courtesy Busselton-Margaret River Times

## Ian's dream con

IAN was working as a consultant with the Bureau of Statistics in Perth, advising government departments and private organisations on designing surveys, when he saw CALM's advertisement.

"I could barely believe my eyes: I thought someone had been reading my mind and designed the advert around my career aims," Ian said.

Ian's route to CALM was a tortuous one. He had moved to Perth from Canberra, where he'd been working with the Department of Primary Industries as a graduate economist.

Before that, he was a geologist with various mining companies, having gained his Bachelor's degree in earth sciences from Macquarie University in Sydney.

After working as a geologist in the Northern Territory, New South Wales and Queensland for four-and-a-half years, Ian decided he would rather work in the bush than under it, so he enrolled at the University of WA to acquire a Master of Science in Natural Resource Management.

Thus armed, he set off for Africa to teach maths and science at a high school in Zimbabwe for a year, before returning to Canberra and the Department of Primary Industries.

"It was one of the best days of my life when I was informed that I'd finally landed the job I really wanted with CALM," Ian said.

"I was the first of the three of us to start with CALM and my initial impressions were of barely controlled chaos; the Northern Forest Region was an existing Forest Department Region that had suddenly 'acquired' management of nature reserves, national parks and ranger staff.

"Alan, Neil and I became our own mutual support system, out of which a firm friendship evolved; I remember Alan travelling from Manjimup to the Leeuwin-Naturaliste Ridge to help Neil build his home—greater love hath no man than that he lay down his bricks, and so on.

"At first, I concentrated on working through the numerous small problems that had accumulated over a number of years, before

tackling major

"Among the most vividly Management Workshops to

of national parks

"Another important transport problem Avon Descent

"We introduced Walyunga and car parking adjacent to the

"Impatiently damaging the attend to the spectators, ins

changes that objectives, like before which basis and with

"I have seen management of burning practices of sight, with Aboriginal-style dieback is now to conservation

"While the I'm optimistic

"Planning flexible, and funding offer

"While my part of my life Jane and I (and CALM) i keeps me sane reason when I

"My two s aged five mo days!). To see and makes th

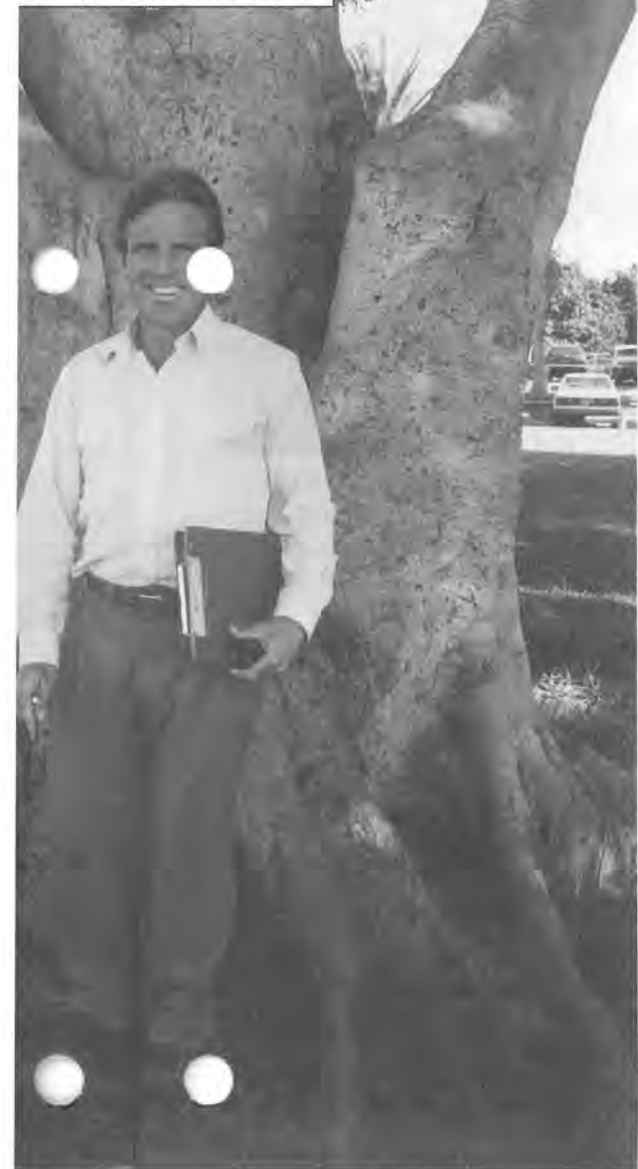


# - looking back ... and forward ...

recruits to the then new department; Ian was Forest Region, Alan to Southern Forest and while each one's work background differed

markedly from the others, together they brought a mix and a balance to their new careers with CALM. Below, they share with readers some of their impressions and experiences during CALM's first 10 years:

ies by Verna Costello



ie of his rare visits to CALM's Corporate Relations Division.  
Photo by Verna Costello

## Cycling trip leads to career change

**ALAN Sands heard about the amalgamation that was to become the Western Australian Department of Conservation and Land Management while he was in Perth during a cycling holiday around Australia.**

But it wasn't until he reached Adelaide that he actually saw the advertisement.

Alan said that with the amalgamation under the CALM Act of three land management agencies: Forests Department, The National Parks Authority and the wildlife component of Fisheries and Wildlife, it looked as if there could be an interesting and challenging future here that he very much wanted to be a part of—so he promptly applied.

"I'd been working with an environmental consultancy, advising on impact assessments and preparing rehabilitation plans for open-cut coal mines in the Hunter Valley," Alan said.

"My duties also included landscape architecture and recreation planning. I had a degree in landscape architecture and a post-graduate diploma in natural resource management.

"When I arrived in Manjimup, my impression was that the staff were highly enthusiastic and committed, both to their individual roles and to the new department's objectives.

"There was a positive feeling abroad, although, as one might expect, there were those who held some residual loyalty to their former organisations.

"Initially, as parks and reserves officer, I expected to be involved in, say, 70 per cent natural resource management and 30 per cent recreation management. It has turned out to be more like 80 per cent recreation visitor management and 20 per cent natural resource management.

"I found that managers were prepared to take the risk of backing my proposals for projects, and the district officers and crews were generally keen to try anything new, although there was some

good-natured fun to be had at my expense, being the 'wise man from the east'.

"While there was a great deal to be learnt from existing staff, Ian, Neil and I were, to some extent, our own support system.

"We were 'cleanskins' in a very new department where we were largely without mentors, so we met every month or two to share tactics, processes, strategies and ideas.

"Because of our varied employment backgrounds, there was a fair amount of cross-fertilisation of ideas for projects that we carried out, each under the very different circumstances peculiar to our own region.

"Among the first major initiatives I remember vividly was the Four Aces—One-Tree Bridge project that called for the establishment of a new car park and picnic facilities, with as little disturbance as possible to trees growing on the site.

"The commitment, enterprise and skills displayed by the Manjimup District crew were impressive to behold, and the way they wholeheartedly embraced my request to minimise damage to trees was incredible.

"For example, the crew used 'dozers and front-end loaders to carefully juggle intertwining branches, one or two at a time, so that the tree that was required to be removed, didn't rip out its neighbours' branches.

"The Big Brook Dam development in regrowth forest was another major initiative, followed by the establishment of the annual Big Brook Relay.

"I can still see the look of concern on former Pemberton district manager Bob Hagan's face, when the scale of the Big Brook development was revealed—he'd barely recovered from the Shannon River development, which had been a long, tedious process.

"Nevertheless, Bob supported the Big Brook

Dam project, and much of the credit for its successful completion goes to him and the Pemberton team.

"I'm pleased to see the continual development of recreation policy; it has been an incredibly valuable tool, along with the range of technical manuals prepared by Recreation and Landscape staff.

"More recently, policies that encourage partnerships with private enterprise organisations, and working with volunteers, have meant that projects that otherwise would have gathered dust at the plan-on-paper stage, were successfully completed.

"Much of the improvement in visitor services can be linked to the partnership between the recreation and the interpretation and education groups.

"Sound liaison between the two has ensured that people enjoy, as well as understand, the natural settings they visit.

"Being with CALM has given me the opportunity to work alongside people with a wide variety of skills, to achieve sound land-management practices and to service the visitor.

"Just as I have been supported and empowered by managers to get things done, I also have been given the opportunity to support and work with others to do likewise.

"Looking ahead, I hope to continue to be part of a team that develops visitor facilities that are both environmentally and financially sustainable.

"I believe the process of change will be heavily focused on the delivery and maintenance of the facilities and programs on which much of the State's tourism indirectly depends.

"I will be concentrating my efforts on finding ways to better manage the natural environment, providing facilities and services for visitors, and securing appropriate funding to maintain and upgrade the assets we have."

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tackling major new initiatives.

"Among the major initiatives that I remember most vividly are The Yanchep National Park Management Plan and the establishment of public workshops to gauge the needs and expectations of national park users.

"Another innovation I took on board was the transport problem that had dogged the annual Avon Descent boat race for years.

"We introduced bus transport for visitors to Walyunga and Avon Valley National Parks, with car parking provided on private properties adjacent to the river.

"Impatient visitors ceased crashing into and damaging the bush, and rangers were left free to attend to the needs of support crews and spectators, instead of acting as parking attendants.

re also were some welcome major policy changes that set the scene for achieving our objectives, like Recreation Policy 18, a real godsend, before which decisions were reached on an ad hoc basis and with few written guidelines.

"I have seen some major changes in land management over the past 10 years; prescribed burning practices, for example, have improved out of sight, with the use of aerial ignitions and Aboriginal-style patch burning; and non-forest dieback is now recognised as an even greater threat to conservation values than its forest counterpart.

"While there's still much to be done in CALM, I'm optimistic when I look to the next ten years.

"Planning is becoming streamlined and more flexible, and the new direction toward self funding offers some exciting challenges.

"While my career with CALM is an important part of my life, my family is my real foundation; Jane and I married in 1993 and she has helped me (and CALM) in many direct and indirect ways. She keeps me sane by listening and being the voice of reason when I loose my cool over things at work.

"My two sons, Patrick, (11), and Lachlan, aged five months also help keep me sane (most days!). To see the two boys together is a great joy and makes the not-so-good days worth while.



A long-time backpacking bushwalker, off-duty Ian Herford pauses to take in a view of West Cape Howe National Park and the Southern Ocean.  
Photo by Jane Herford



# Rare *Apium* found in national park

CALM's South Coast Region administrative assistant, Ann Burchell, recently made a significant discovery of a rare Western Australian wildflower, the fine-leaved apium (*Apium prostratum* subsp. *phillipii* ms) in the Porongurup National Park.

The apium plants were found in a deep gully with steep sides and dense vegetation — an area which has apparently deterred all but a few intrepid explorers such as Ann.

Ann discovered more than 50 fine-leaved apium

by Mike O'Donoghue

during three surveys of the area, with one giant specimen measuring nearly four metres long.

Apium is an erect, slender, perennial herb that grows to 50 cm high, with finely divided leaves.

It occurs on creeklines under karri and is restricted entirely to the Porongurup Range.

Ann's discovery has provided CALM with important new information on the species' distribution within the park, and shows

what rewards await the dedicated plant enthusiast.

Ann located the new population of the plant while exploring a little-known area of the park for *Billardiera granulata*, a climber with minute star-shaped, purple-dotted white flowers; *Villarsia calthifolia*, locally known as mountain primrose — possibly because of its yellow flower and distinctive broad, glossy leaves — and *Hibbertia bracteosa*, a yellow-flowered plant.

All are endemic to the Porongurup area and are among the State's rare flora species.



Ann Burchell with ringtail possum. Inset: *Apium prostratum*. Photo by Peter Collins



WA Water Authority's Syd Hankinson, standing second from left, with CALM staff who helped to clear Ten Mile Brook to allow for construction of the dam. Syd is flanked by forest ranger Steve Pickering, left, and forest workers Terry Coffey and Peter Simmonds. In front are forest workers Ed Hally, Mike Innis and Ken Howes, and overseer Bluey Bell. Photo courtesy Augusta-Margaret River Mail.

## Recreation site completed

THE recent opening of the Ten Mile Brook Dam also heralded the completion of a new recreation site and extensive walk and cycle trails linking the area with the Margaret River townsite.

Water quality from the old supply dam always has been a problem with discoloration rather than clear water the typical product. Water restrictions last summer became an added burden.

Planning for an upgraded and increased water supply to the town of Margaret River began in 1988 when a pump-back scheme from the proposed

by Wendy Rose

Ten Mile Brook Dam was recommended.

Following a public review, the project was finally approved by the State Government in 1991 and work began in December, 1992.

CALM Margaret River staff carried out the arduous task of clearing the 28 hectares of forest within the Ten Mile Brook reservoir area. All saleable timber was sent to various mills.

The main contract for the dam, spillway, outlet works and road works was

undertaken by the Water Authority of Western Australia (WAWA) with one of CALM's employees, forest worker Mike Innis, seconded to help.

Funding from WAWA enabled local CALM staff to design and construct a new recreation site below the dam area.

The 27-year-old bluegum plot, known as Rusden Picnic Site, was thinned during initial clearing of the dam site.

Now, gas barbecues and picnic tables are located among its trees, with winding walkways linking the areas.

The design of the ablu-

tion block, with a wooden building resembling an early group settlement cottage, reflects the history of early settlement.

The picnic site and surrounding area was a group settlement farm in the 1930s. Now, some of its history is displayed on panels at the information shelter.

The official opening of Warren MLA Paul Omoder was conducted in perfect picnic weather.

More than 300 people attended the unveiling of the commemorative plaque and stayed to enjoy morning tea among the bluegums.

## When managing deserts - Australia is envy of others

DESERTIFICATION — why can't we control it in developed countries? was the topic under discussion at a recent conference Kimberley regional manager Chris Done attended in Tucson, Arizona, America.

Chris said that the word 'desertification' was defined in 1992 by the United Nations Conference on Environment and Development as 'land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variation and human activities.'

"It became apparent to me as the conference progressed that Australia was looked upon with envy by most conference delegates from developed countries, and was seen as coming closest to grips with the problem," Chris said.

"The National Land-Care Program and the land conservation district committees concepts were cited as having the most effective large-scale responses to the problem.

"Some horrendous ex-

amples of desertification were presented, and none was more graphic than the fate of the Aral Sea area of the southern Commonwealth of Independent States (part of the former USSR).

"Here, the level of what was a freshwater inland sea has dropped about 15 metres and salinity has increased dramatically after the imposition of an intensive agricultural system (7 million hectares of cotton) over what was previously a stable, nomadic grazing area.

"None of the waters of the two major rivers in the region now reach the sea, and there appears to be no likelihood of the governments of the newly autonomous states in the region reaching water usage agreement in the short-term.

"Furthermore, one of these countries recently decided to reduce its irrigated area and allow some additional water to flow to the sea, but this water was eagerly soaked up by a neighbouring country to add to its cotton estate.

"The overall impression was that it would have been more likely that a unified USSR, with a more enlightened environmental outlook, would have had more chance of stabilising and perhaps even reversing the situation."

The role of domestic grazing animals in marginal regions was the focus of several other papers.

Some argued that, on environmental as well as economic grounds, it was impossible to justify continued grazing, while others argued that, with proper management, cattle could be used to stabilise and, in some cases, reverse desertification.

"An interesting example was quoted of a situation in Arizona where high densities of cattle were used to help revegetate a mine site," Chris said.

The method was to fence the area to be rehabilitated into small units, and to feed and water cattle there for a short time only.

The fencing and the cat-

tle were then moved to a new area, sequentially covering the whole site.

It was claimed that very high density animal impacts for short periods allow various grasses to recolonise the areas.

The role of cryptobiotic surfaces (the black, lichen-fungal layers found in many range soils) was the subject of another interesting paper.

It was contended that once the cryptobiotic surfaces were trampled or disturbed, the fragility of the soil layer increased and physical properties of the soil, such as temperature and moisture relationships, changed dramatically.

Re-establishment of the cryptobiotic layer appears to be a very long-term process, if indeed, it can happen at all.

A full copy of the conference papers will be lodged with CALM's Woodvale library as soon as they become available.

"In the meantime, I'll be happy to provide a list of abstracts to anyone who is interested," Chris said.

## How's your health?

HEALTH and fitness coordinator Linda Gilbert has passed on the following wise words from National Heart Foundation dietitian Glen Cardwell:

I get numerous calls asking me what's the best diet for the heart.

The simple answer is: fruits, vegetables, breads, pasta, rice, low-fat dairy foods, lean meat, and so on.

But that's not the question they're really asking me.

What they want to know is why is nutrition so confusing?

And no wonder — once you grab your shopping trolley what do you buy? Cholesterol-free bread or regular? Polyunsaturated or monounsaturated? extra oat bran? Seafood?

'Baked not fried' snack foods are on the market. They are very high in the fat that can raise blood cholesterol.

It surprises many that 'cholesterol-free' has nothing to do with fat content.

Fat and cholesterol are different components of food; margarines are 80 per cent fat, all oils are 100 per cent fat, yet neither contain cholesterol; bread has

always been cholesterol-free, but it's on some labels because it improves sales.

'Monounsaturated' describes the chemistry of the fat and doesn't mean it is low in fat or calories.

Neither poly- nor monounsaturated fats raise cholesterol, but some scientists believe monounsaturated fats to be a better choice because they are more abundant in naturally occurring foods than are polyunsaturated fats.

All margarines and oils are high in fat and calories, so go easy on them.

A concerned teenager once asked me if it was wise to take her grandfather to a restaurant for his 82nd birthday. He might order lobster and could this upset his 'dicky' heart?

My response was "Lobsters don't cause heart attacks; let him eat whatever he fancies."

The fear of cholesterol in food has kept many people from enjoying seafood. It does contain cholesterol, but has very little fat.

The small amount of fat that is present seems to help reduce the risk of heart disease, and the cholesterol probably has no effect on

health. (How often do most people eat lobster? Not often, I bet).

It's what one eats everyday, not what is eaten rarely that has the greatest effect on blood cholesterol levels.

In 1988, when the oatbran craze came to town, it sounded like we had a cure for the high cholesterol blues.

Oatbran muffins appeared in lunch boxes around the nation, but there was one major barrier — taste — and oatbran just didn't have it.

The forgotten factor was that eating lots of oatbran only helped if you first cut back on fat. Sound familiar?

Cut back on the fat, especially in everyday foods.

Include more fish, fruits and vegetables, bread and cereal in your meals — and above all, enjoy your food.

I recommend you read *Healthy Eating for the Heart*, available from The Heart Foundation for \$5.00.

CALM staff may contact Linda for more information by telephoning her on (09) 334 0397.



# Project Eden base camp established at Peron

**CALM wildlife officer Ray Smith has begun setting up the base station for Project Eden, the Department's new initiative to help reclaim Peron Peninsula for native animal species.**

Ray is the Operations Officer for the project and will spend the next two to five years based at Peron Homestead in the Francois Peron National Park.

The homestead will be base camp and control centre for Project Eden operations, and the centre will be a temporary home for anything up to a dozen or so scientists, as each stage of the project gets under way.

In early April, the first

by David Gough

phase of the eradication stage was begun, and baits were laid to determine the density of the fox population on Peron Peninsula. The results of the first night's baiting showed a fox-density higher than is known anywhere else in the State.

Once the density was established, aerial baiting began; about 10 000 baits containing 1080 poison were dropped at a density of one per 100 metres in one kilometre grids covering the entire peninsula, except for the Denham and Monkey Mia townsites and main camping areas.

There will be another feral animal density test conducted to establish the drop in fox and cat numbers.

Before the baiting began, brochures were mailed to all residences and businesses in the area and are still available at all tourist resorts, caravan parks, information offices and the CALM office.

These brochures inform residents and visitors about the project, the reasons for choosing 1080 poison in preference to others and details of the baiting program.

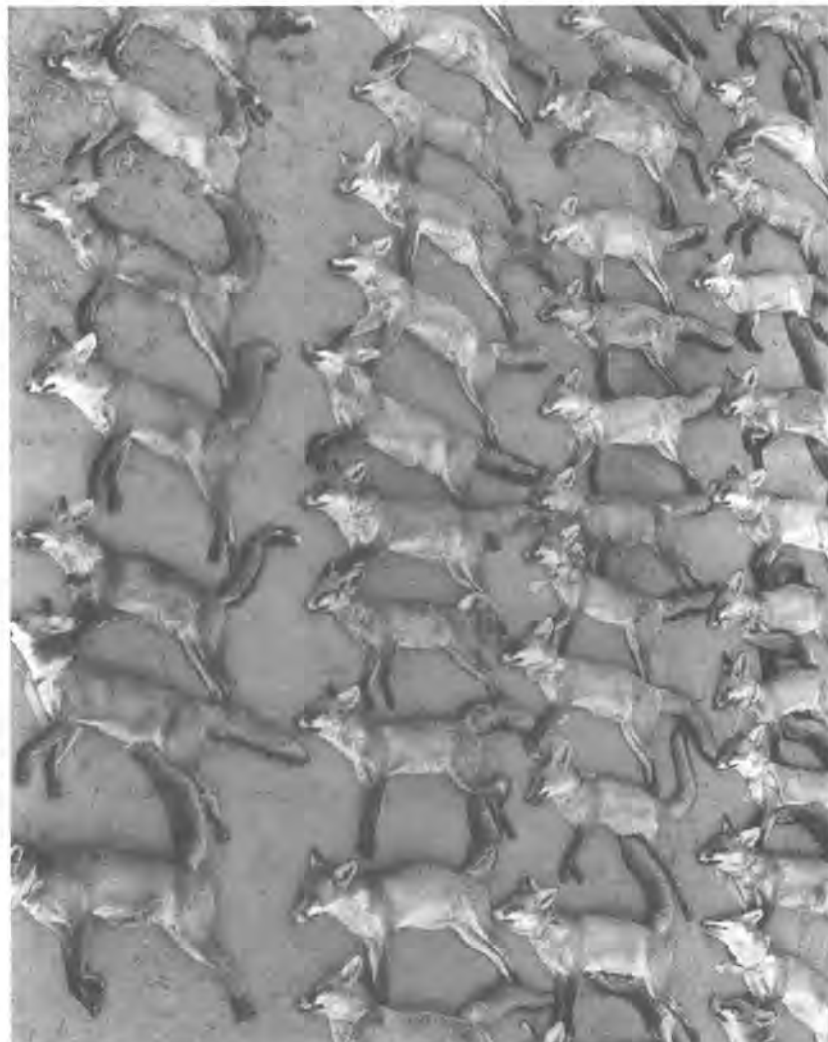
A display centre will be set up at the Peron homestead to inform visitors about Project Eden, its

progress and its aims.

Eventually, the homestead will be used as a centre for viewing reintroduced native animals in the wild, adding another valuable attraction to Peron National Park.

Project Eden is being conducted in three stages: the eradication of feral animals from Peron Peninsula; the reintroduction of native animals and the promotion of nature-based tourism opportunities resulting from the reintroduction of the animals.

Stage one is under way, and in time we may once again see the same native animals that Francois Peron saw in 1801.



Wall to wall foxes - no longer able to prey on Peron Peninsula wildlife.  
Photo by Ray Smith



Ray Smith levels the caravan before constructing the annexe that will be the Project Eden Control Centre.  
Photo by David Gough

## Foxes on the run

**ON the morning of Wednesday 6 April, CALM wildlife officer Ray Smith began collecting dead foxes and cats from the first night of a three-day baiting program to determine the density of the feral animal population on Peron Peninsula.**

Helping Ray with his grim task, were Science and Information Division's Neil Burrows, Manjimup Research Centre's Alex Robinson and Bruce Ward and Peron National Park maintenance worker Arthur (Pep) Pepper.

Little did they know that by the middle of the afternoon they would have evidence that the fox density

by David Gough

of the Peron Peninsula was twice that of anywhere else in the State.

The afternoon before, baits had been laid in a straight line 200 metres apart for 57 kilometres.

Ray said that 146 foxes and three cats were killed over a three-night period.

"This is an extraordinarily high density of foxes; seventy-nine foxes died the first night, with 37 and 30 on the following two nights, respectively," Ray said.

"There were some areas where the number of dead foxes was very high, notably around water points such as New Bore or Mon-

key Mia Bore, but away from these points, the distribution was more or less even.

"The unusually high density of foxes probably can be attributed to the high numbers of rabbits, on which foxes prey, so it is important that we keep an eye on rabbit numbers as the fox numbers decline."

The next step was aerial baiting with 1080 poison baits and when completed this will be followed by another density survey to ascertain the percentage reduction in fox population—but given the high numbers to start with, there is still expected to be a relatively high density remaining.

## First, it was takeaway food, now it's takeaway rubbish

**TOWARDS the end of 1993, former ranger-in-charge of Walyunga National Park Ross McGill and I removed the park's rubbish bins and installed recycling bins for glass and aluminium cans.**

Thanks to sponsorship from Westcan, we also provided plastic rubbish bags to all park visitors, and invited them to take their rubbish home.

The bags were distributed either by direct hand-out at the gate or through conveniently placed dispensers in the picnic areas.

Ross departed from Walyunga about 14 months ago to take up the position of ranger-in-charge of King Leopold National Park, but the rubbish removal project at Walyunga continued.

Steve Strachan took

by George Duxbury

over from Ross as ranger-in-charge of Walyunga and now enough time has passed for Steve and I to assess the effects of the rubbish disposal system.

Co-operation from visitors has been extremely gratifying. Occasionally, a bag of rubbish is left behind, but mostly visitors take the bags away with them.

And there has been a distinct reduction in ground litter. When there were bins available, some visitors didn't take too much trouble to ensure the litter they directed at the bin actually reached it.

They frequently neglected to replace the bin lids, which encouraged the birds and 'roos to pull the

rubbish out again.

Now, when rubbish is left behind it is usually in one of the handout rubbish bags, so it is much easier to pick up.

From a cost-efficiency point of view, we believe the project has been a huge success.

We estimate that a saving of about \$3 500 has been made since the project began.

The saving has been made through reduction in rangers' time spent in picking up ground litter, emptying bins, replacing and repairing bins, bin lids and liner bags, and running costs of the vehicle travelling to and from the tip about eighteen kilometres away.

About \$150 has been generated from glass and cans through the recycle

bins, with about \$100 coming from the recycling of aluminium cans.

Steve and I believe that because visitors have the plastic bags with them wherever they picnic, they are more inclined to put all of their rubbish (including the recyclables) into the bag and take it away with them. We can only hope they sort their rubbish at home and dispose of it carefully.

This project is a winner; both in the wider sense of park visitor acceptance and that of sponsorship from Westcan, which has a major interest in promoting recycling.

It also shows the community that we are genuine in our recycling endeavours and we believe this encourages them to be the same.



Part-time gatekeeper Jeanne-Marie Pehlic hands a rubbish-disposal bag to Walyunga National Park visitors. Photo by George Duxbury



# Staff moved from Pinnacle House

**GRAHAM Hoare** ('Mr Tenure') wields a mean vacuum cleaner hose amid the chaos that reigned in Land Information Branch for several weeks before Pinnacle House staff relocated to Como.

Graham is seen below being encouraged by Stella Bickmore, (steering the vacuum cleaner for Graham) Craig Thurley,

and Femina Metcalfe.

According to Femina, work had continued to pour in and out, regardless of the cramped disarray in which LIB staff had to operate while renovations were in progress.

"There are two things to bear in mind in order to retain one's sanity at times like this: take life one day at a time and maintain a sense of humour," Femina said.

LIB manager Peter Bowen praised his staff's patience and willingness to help bring the renovations to fruition.

Planning Branch manager Jim Williamson said that Parks, Recreation, Planning and Tourism Division had been located at Pinnacle House in Mount Pleasant for three years.

"Before then, we spent seven years at Murdoch

House, a couple of streets away from Pinnacle House," Jim said.

"We've become dab hands at packing, unpacking and working in the chaos created by relocating, so we can empathise wholeheartedly with LIB staff in their stressful circumstances.

"We all relocated in March and now have settled in at Como."



Tom Mills, left, and CALM manager of native forests Jack Bradshaw visit jarrah and marri logging operations in the Manjimup area. Photo by Sue Moore

# US visitors look us over

**THE integrated approach to natural resource management, as practiced by CALM, attracted a five-member study tour from the United States in early March.**

The tour members visited Western Australia to find out how a multi-objective agency such as CALM works so successfully.

They were also interested in how the CALM Act and CALM's corporate structure contributed to the achievement of integrated land management.

The visitors included the US Forest Service's Associate Deputy Chief for Programs and Legislation Tom Mills, and two senior forest research staff Roger Clark and Charlie Philpott.

They were accompanied by George Stankey, of Oregon State University and Hannah Cortner, Director of the Water Resources Research Centre at the University of Arizona.

The group's main interest was forest research, policy and management,

by Sue Moore

with an emphasis on decision-making and public involvement.

The study tour was hosted by CALM's Executive Director Dr Syd Shea in Perth and Southern Forest regional manager Kevin Year in Manjimup.

The visitors spent two days in Manjimup — most of the time in the field.

They were joined in Manjimup by Canadian Forest Service fire ecologist, Mike Weber.

The visitors gained an understanding of the complexities of karri and jarrah forest management through discussions with Kevin Year, Jack Bradshaw, Bob Hagan and Lachie McCaw.

Forest planning was reviewed by Martyn Rayner, Peter Stirling and Phil Durell.

Unfortunately, because of exhaustion after an intense study tour in New Zealand and the eastern states, the US contingent

missed the fauna trapping at Kingston Block, coordinated and conducted by Gordon Friend and Keith Morris.

However, Mike Weber was able to take part, and he regarded the fauna trapping as the highlight of his visit.

Two key organisers of the study tour were Rita Mellican, from Crawley Corporate Executive office and Sharon Rouse, from Manjimup office.

Before the tour left WA, members reflected on the importance of public consultation initiatives developed by preparing the Forest Strategy, involving advisory committees in management planning, and the role of the National Parks and Nature Conservation Authority in CALM's planning processes.

Their view, based on their experience in the United States, was that comprehensive public consultation had become an essential component of public land management.

# Homestead to be restored

**FERNDALE, one of the oldest homesteads in the Blackwood region in the State's south-west, will be restored under a partnership arrangement between CALM and the community.**

CALM is seeking expressions of interest from individuals and organisations to lease the historic complex and restore it as

part of an overall tourism development.

CALM Executive Director Syd Shea said the homestead, farm buildings and grounds, including an old walnut grove, were classified by the National Trust. The homestead was built in the 1850s.

Dr Shea said the Department wanted the heritage building restored

and managed to retain its heritage values and develop the tourism potential of the site.

Possible ventures include a backpacker's hostel, restaurant or tea-rooms, craft emporium, chalets or caravan park.

The homestead, 6 km south-west of Balingup on the Nannup-Balingup Road above the Balingup Brook,

is on land CALM's predecessor bought in the 1970s for pine plantations. The homestead gardens and home paddocks cover 3 hectares although up to 16 ha is available for lease.

People interested in making submissions can contact CALM's Blackwood district manager Peter Bidwell in Kirup on (097) 316 232.

# Merv and Kim pinpoint positions with satellites

**MERV Smith and Kim Allen of Kelmscott Forest Management Branch have all the necessary back seat technology to sink a ship ... and find it afterwards.**

Here, Merv, right, adjusts a hand-held Differential Global Positioning System (DGPS) to get a better fix from overhead satellites.

The DGPS gives an immediate and exact position to within 10 metres, and the accuracy improves with more satellites.

The DGPS can be mounted on a back pack, but Merv and Kim are using it in the van, along with their VHF radios, mobile phones, pagers, (not to mention cigarette lighters and other amazing 20th century technology.)

The task for this field trip was to establish the Lane Poole Reserve boundary accurately, as a

by Tammie Reid

requirement specified in the management plan.

Although the Lane Poole Reserve boundary is shown on maps as being along roads, the precise location often results in variations of up to 50 metres off the road and into the scrub, blackberries and other tangles and pricklies in the Murray Valley.

Merv explains the application of the technology: "The beauty of this equipment is that it enables us to do our own detailed surveying in-house," he says.

"What we've been using is based on 'real-time positioning', linked directly to the satellites overhead at the time.

"We are linked to a geo-stationary communications satellite, that is fixed above the earth. We also are linked directly to

a selection of positioning satellites, constantly orbiting overhead.

"Our equipment has been superseded by newer DGPS systems, based on more sophisticated receivers, tracking more satellites and using smarter software, all of which give a precision of plus or minus a distance of less than a metre."

The newer system is used by senior research scientist Greg Strelein and forester Steve Quain of the Forest Management Branch, Bunbury, in surveying the plantations of the South West.

Greg says that the more up-to-date system also is used for locating other boundaries, timber harvesting, coupe boundaries, regeneration survey plotting, and logging road locations, and is part of the helicopter photography system used to update the jarrah inventory.

CALMfire will be us-



ing the satellite-driven system to plan, navigate and report for helitorching and fire-bombing operations

during the prescribed burning program.

Satellite-assisted surveying has been in use by

CALM for some years, but always has been difficult under the forest canopy.

The new technology is

becoming an every-day precise tool, available to a wide range of CALM work areas.