

CALM NEWS

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT AUGUST 1989

FOREST FOCUS FOR WALKERS

Bushwalkers often can't see the forest for the trees.

But down Manjimup way, CALM staff have set about changing that.

They've designed spotting scopes — short steel tubes mounted on stands — so walk trail users will focus on some of the interesting, but often overlooked, forest features.

Five of these scopes are now in place on the 800m Karri Glade Path at the Four Aces recreation site at Manjimup.

Each scope focuses on a

different aspect of the forest, such as an unusual crown break, a large burl, moss and lichen on a log, a germinating plant on the top of a stump and wrinkles on the underneath of a huge branch.

Children, too, can take a peek with the aid of nearby tree stumps.

The scopes were designed by Forest Ranger Tim Foley and regional interpretation officer Tammie Reid.

"We wanted to set up an atmosphere of guided discovery without having to short circuit this by saying

what the discovery was," Tammie said.

"People won't necessarily get answers, but they might start thinking and wondering about questions to ask."

The Four Aces recreation site was officially opened, after extensive re-development, by the Member for South West Province Doug Wenn on July 18.

Forest worker Ron Farr lines up one of the scopes along the Karri Glade walk trail. (Photograph by Tammie Reid)



COMPUTER AGE IN FIRE FIGHT

Canadian Judi Beck can fight fires — without even getting her hands dirty!

In fact, Judi battles the blazes on a computer screen, playing what seems to be a sophisticated video game.

But she's not doing it for fun.

Judi is developing a revolutionary computerised system that will help foresters manage wildfires.

The system will enable managers to access a variety of data simultaneously and, like placing overlays on a map, combine the data to get a complete picture.

In other words, computer graphics are used to display the terrain, weather conditions, forest fuels and areas with endangered flora and fauna, as well as the location of the fire front, its potential behaviour, and what human resources and equipment are being utilised in each area.

"My aim is to develop and integrate computer packages that will use existing geographical information to help a fire controller establish suppression priorities quickly and make effective strategy decisions," said Judi.

"The final package will present the situation simply and visually so that it can be interpreted quickly and correctly.

"I hope it will be a valuable

management tool."

In a large fire, it will have the added advantage of enabling people with expertise to provide information for the next shift of workers.

It's a huge task for this young woman who won a CALM PhD Research Scholarship and is now completing her doctorate in Curtin University's School of Computing Science under the supervision of Steve Kessell and Denis Moore.

But Judi is undaunted and can be justifiably proud of her achievements to date.

After little more than a year working in collaboration with CALM's Fire Protection Branch, Judi has written two research papers and translated 'The Red

Book' — WA's Fire Behaviour Prediction System — into equations so it can be computerised readily.

Now Judi is concentrating on creating and combining the programs into one workable system — a system

which could conceivably be adapted and used in other crisis situations such as oil spills, gas explosions and floods.

That means she will, for the time being at least, continue playing video games.

Put us in the picture

A picture paints a thousand words — or so the saying goes.

In the case of CALM News, it's photographs we are after. And if you can help us, we can help you. We can supply black and white film — and arrange to have it processed — for any regional staff willing to take photographs.

Simply call Carolyn, Steve or Tanya at Public Affairs (389 8644) and we will send you some film.

If you already have photographs, please send us the prints — not negatives! All prints will be returned after use.

Meanwhile, keep the CALM News story forms flooding in. Remember, the deadline is the first Friday of each month.

Volunteer plan is shaping up

Volunteers are to play a bigger role in helping CALM achieve its objectives with the appointment of a community involvement coordinator.

Colin Ingram joined CALM in August. He recently left the WA Rugby Union where he worked as the sport's coaching and development coordinator.

Colin says volunteer programs will help CALM achieve its objectives in times of limited resources, at the same time developing community awareness.

He will assess initiatives already taken at Penguin Island, Lane Poole and Yanchep.

Colin says the potential to extend programs into new districts is unlimited.

Colin became involved in conservation and land management when working as a volunteer at Kosciusko National Park while completing his BSc in Canberra.

He was later employed by the NSW National Parks and Wildlife Service, working as a ranger in Kosciusko, The Greater Blue Mountains and Ku ring gai Chase.

Colin first travelled to WA in 1986 and was so impressed by the State's beauty and way of life that he accepted an opportunity to move here in early 1987.



CALM's new community involvement coordinator Colin Ingram.



Judi Beck — developing a computerised fire control system that will incorporate her equations for WA's Forest Fire Behaviour Tables.

A Southern Giant Petrel found exhausted by a fisherman in June, gave a rare insight into the movements of large ocean birds.

The bird recovered and was eventually released at Knobby Point, near Geraldton.

The fisherman noticed that the petrel was banded and sent information on the band to Wildlife Officer Kevin Marshall.

The bird had been tagged

FLIGHT INSIGHT

in Antarctica as a nestling by the British Trust for Ornithology.

Kevin wrote to the Trust, which advised him that, since the bird was tagged in February, it had travelled 12,537 in only 103 days.

The Trust tags more than 700,000 birds each year, but gets few back.

Anyone finding a tagged

bird should note its number, then release it without removing the ring.

If the bird is dead then the whole ring should be returned.

Bird tagging is practised all over the world and has revealed many facts about the movement of wild birds.

It has, for example, shown that British and Rus-

sian swallows both spend winter in South Africa, whereas those from mid-Europe chose East and central Africa.

It has shown that the millions of Starlings reaching Britain each winter come from as far away as northern Finland and Russia, and that one of our sea birds — the Manx Shearwater — migrates to South America, taking as little as three weeks to complete the 8000km.

FROM MY DESK

I am very pleased at the way that the Department is responding to the increased public interest in environmental matters.

We have refused to adopt the bunker mentality and have gone out and told the message as we see it.

However, I think it is important that we caution everybody that when we adopt this proactive role, we must be extremely careful because of the political sensitivity of the many issues that we deal with.

I do not, in any way, want to constrain members of the Department from being proactive with the public and media, but everybody must remember that when they write on departmental letterhead, or speak as a departmental officer, they speak as the Department not as individuals.

CALM, since its formation, has encouraged the involvement of the community in many of its projects.

There are a number of volunteer groups playing different roles for CALM throughout the State.

The appointment of Colin Ingram, however, provides us with the opportunity to develop a more formal volunteer program.

I have always been impressed by the success of the Bush Fires Board, which essentially depends entirely on volunteers.

The service of these volunteers saves the State literally millions of dollars per year.

The interesting thing is that volunteers do it willingly.

I can't see why CALM cannot devise a similar type of service. In so doing, I believe we could go a long way towards relieving many of our resource problems.

Please give Colin Ingram your support as he develops the program.

SYD SHEA
Executive Director

The Waterways Commission received a Certificate of Merit in the 1989 Australian Heritage Awards.

The award was given for the development of the Swan River Strategy and the establishment of a coordinated management framework for the Swan and Canning Rivers.

Development of the Strategy involved liaison between the 10 State Government departments and 20 local authorities responsible for managing the river systems.

River plan wins heritage praise

A draft document produced for public comment received favourable support, only minor changes were made before its final release.

An eight-member management body was later created under the Swan River Trust Act.

CALM was initially

represented by the then Metropolitan Regional Manager Barney White and later by planning branch manager Jim Williamson.

The Strategy identified and recognised valuable 'natural' conservation areas and recommended protection and rehabilitation of the diminishing fringing

vegetation and the introduction of measures to control erosion and maintain water quality.

New estuarine reserves and foreshore regional parks were planned. One of these, the Alfred Cove Marine Park, was proclaimed in November 1988.

Tidal flats present a new

management challenge for CALM.

CALM will have a major say in controlling activity levels, planning recreation facilities, developing fire strategies and implementing techniques for bank restoration.

Agreements with private landowners will also need to be drawn up.

The Strategy provides necessary guidelines and will help preserve our 'river doorstep' for coming generations to enjoy.

Leon Griffiths
Study Group Member

Safety milestone

The impressive safety record of CALM and its employees has again been recognised.

CALM officers in the Greenough/Gascoyne region have gone four years without a work related lost time accident to maintain the best safety record for similar industries in Australia.

Geraldton MLA Jeff Carr presented 22 employees with sturdy pocket knives and a leather sheath to recognise their achievement at an award ceremony last June.

Kevin Minson, MLA for Greenough, presented Greenough/Gascoyne Regional Manager Geoff Mercer with an award from the Industrial Foundation for Accident Prevention (IFAP).

The IFAP award is given to a company or depart-

ment which achieves two years of work without lost time due to accidents.

By Steve Murnane

ment which achieves two years of work without lost time due to accidents. Jeff Carr congratulated the department and its employees on their "very significant record" and mentioned that safety was one of the major issues in the workplace and that it is at the forefront of all his portfolios.

According to CALM's Senior Safety Officer, Tom Wood, there are only 30 staff for the whole of the Greenough/Gascoyne region which is an area twice the size of Victoria.

The region extends from Exmouth in the north to Cervantes in the south.



Greenough MLA, Kevin Minson presents CALM's Greenough-Gascoyne Regional Manager, Geoff Mercer with the IFAP award, while Geraldton MLA Jeff Carr looks on. (Photograph courtesy of "The Geraldton Guardian")

Waste not want not

"Waste not, want not" as the saying goes — and CALM's Como staff are practicing what they preach by implementing a new system for recycling wastepaper.

Staff are dumping wastepaper into large, green, colour coded Sulo bins which have been placed throughout metropolitan branches.

Bins marked with a red cross are only for computer printouts, photocopy paper and good quality white paper.

Newspapers, brown

paper cardboard, coloured paper and glossy brochures are placed in bins marked with a yellow cross.

General rubbish such as cans and plastics are dumped in normal office rubbish bins.

When the Sulo bins are full, they are collected by CALM ground staff and emptied into colour matching garden refuse bags.

The paper is then picked up on a regular basis and recycled in WA, by a firm known as Papermasters.

— CLAIRE BARRON



Terry Bloomer sets the pampas grass alight.

Winter burn rids lake of nuisance

Metropolitan Regional staff have been involved in some strange tasks in their time.

They have saved householders from marauding crows, rescued giant leather-backed turtles from craypots and tried to collect \$45,000 in back rent from a burger bar, to name a few.

Recently, however, even the normal operational activities took a bizarre twist. Staff have been trying to rid Thomsons Lake Nature Reserve of the persistent pampas grass.

They managed to remove much of the exotic and hardy weed with the help of a chain and a tractor.

But a large, dense island of it remained — thickly surrounded by Typha reed and, at this time of year, about 1.5m of cold water.

There was, however, also the high probability of setting the lake's remaining vegetation and peat alight if the burn was initiated in the dry season.

The area had to be burnt in the wet.

So it was that on a sunny day, waders were donned and fire bugs lit.

Away walked the lighters — knee and sometimes thigh deep in the chilly water.

The spectacle was bizarre indeed, providing more than one trainee pilot from Jandakot with a sight worthy of at least another circuit above the lake.

But the burn achieved its objective and the reserve management assistants only reported four cases of the flu the next day.

The people living adjacent to the reserve are still shaking their heads in disbelief.

BIG BROOK RELAY

12 November 1989

Join in the fun — get a team together.

Nomination forms are available from Alan Sands

Ph: (09) 364 0705

Volunteer movement gathers momentum

The effective use of volunteers has enabled north American park and forestry authorities to continue developing and maintaining national parks and forest recreation areas in times of tight budgets.

And CALM's move in this direction should be accelerated, says General Manager Roger Underwood, who has returned from a study tour of parks and forests on America's west coast.

"Volunteers have played a major role in the success of park and recreation programs in both the US and Canada," he said.

"The volunteers provide energy and expertise to support hard-working permanent staff.

"CALM now needs to get its volunteer program up and running."

It has taken the first steps in this direction with the adoption of a strong and positive policy and the recent appointment of Colin

Ingram as a community involvement coordinator.

During the tour, Roger visited a number of national parks including Sequoia, Yosemite, Redwoods and Mount Raimier.

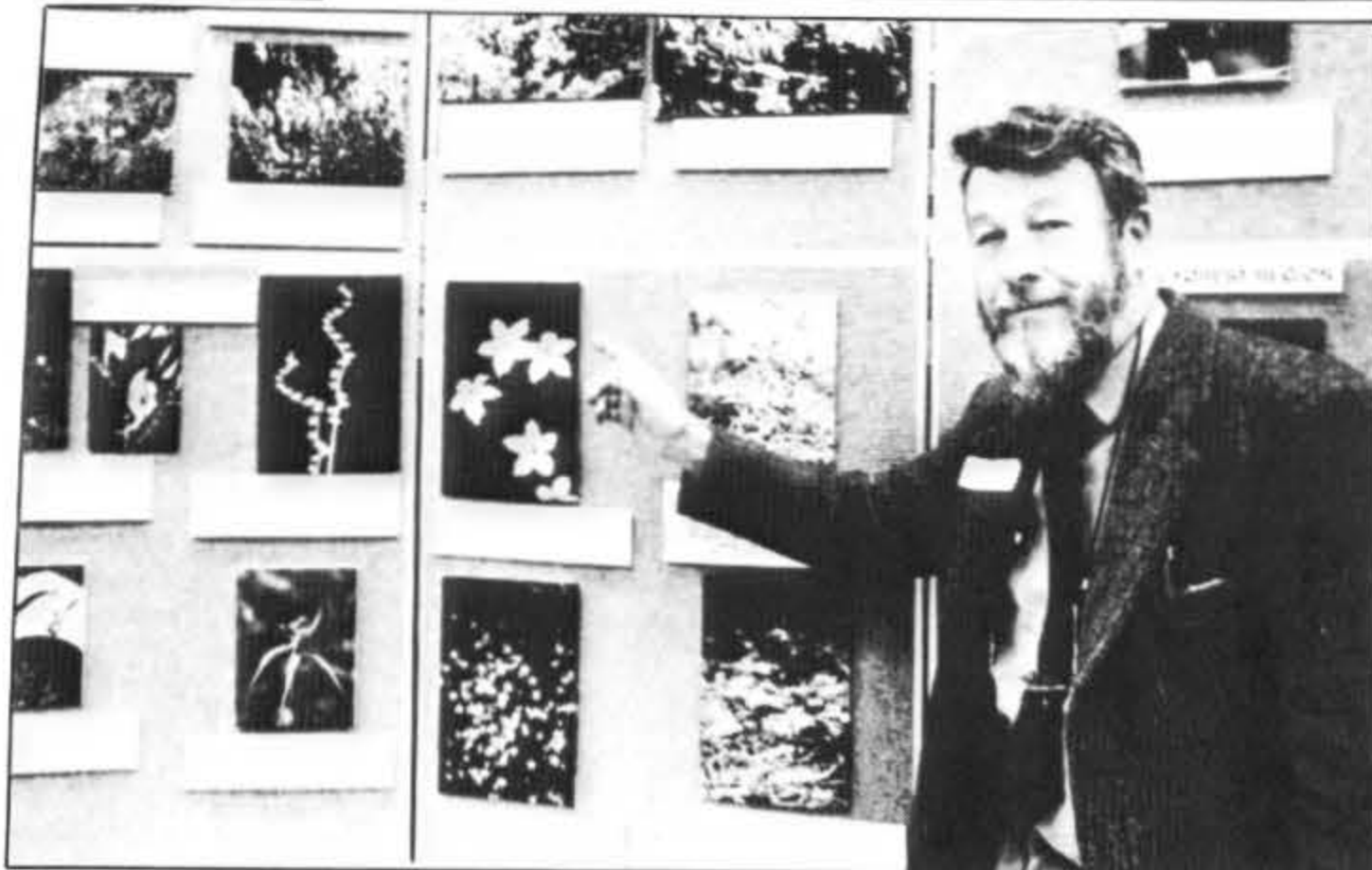
He also inspected national and State forests in California, Oregon, Washington, Ontario and British Columbia.

"The social and land use problems facing US park and forest managers are very similar to those we encounter here," said Roger.

"I saw some excellent work in some areas, but in some other areas, I consider we are doing a better job."

An example of something Roger would not like to see in WA is the role US courts play in deciding the outcome of contentious environmental issues.

"I think it is better if management conflicts can be resolved through planning and negotiation, rather than end up as costly and time-consuming debates between lawyers," he said.



Declared rare flora workshop organiser Ron Sokolowski points out the Bindoon star flower recently direct seeded on a road verge by the MRD.

Wide interest in flora workshop

Just how do you manage an extinct plant?

And what is a dead plant hunter? (The adjective applying to both nouns.)

The answers were heard at CALM's second Declared Rare Flora (DRF) Management Workshop, organised by Ron Sokolowski, Woodvale Research.

Held at Como earlier this month, the training workshop attracted about 100 participants from CALM regions and outside organisations.

These included the Environmental Protection Authority, Kings Park

Board, Country Shire Councils Association, and the Main Roads Department, State Planning Commission and the Bush Fires Board.

The first rare flora management workshop was held last year to train CALM staff in procedures relating to the discovery and management of rare flora.

At this year's workshop, papers included the Flora Conservation Research Program by David Coates, CALM's field Herbaria — are they working? by Herbarium botanist Sue Patrick, Survey of Endangered Poison Plants by consultant Jane Sampson, the management of DRF in the

construction and maintenance of roads by MRD roadside environmental officer Brett Loney and diseases threatening native flora by Dwellingup senior research scientist Bryan Shearer.

the different regions were discussed, as well as guidelines for surveys of plants proposed for addition or deletion to the schedule of declared endangered flora which presently number 238 species.

HOW TO KILL A CONVERSATION

One of CALM's upper echelon tells the story of a Sunday morning cocktail party he attended recently in which he fell into conversation with a farmer from the Great Southern. The subject turned to tree planting. A happy discussion on species, sites, fertilisers, grasshopper control etc was brought to sudden close when the farmer laughingly said "You know what I really like about all this? When I originally cleared all the trees off my place years ago, it was a taxation deduction. Now I'm putting them back it's another taxation deduction. You PAYE taxpayers are doing me proud!" Hurts, doesn't it?

Boston fire conference . . .

AUSTRALIA IN FRONT LINE OF WORLD BATTLE

Australia will play an important role in preventing the loss of natural ecosystems in less developed countries, says CALM's General Manager Roger Underwood.

These countries face massive environmental problems as growing populations, seeking a higher standard of living, place more pressure on the environment.

And, because of international economic and climatic links, the problems of all countries must be shared.

"There is an urgent need for greater international cooperation to help these people, especially in the prevention and control of major wildfires," says Roger, who recently addressed an international fire conference in Boston.

"Australia's role can be to provide advice and technical assistance."

Roger attended the four-day conference — hosted by the US and Canadian Forest Services, the US National Parks Service and the Forest Service of Mexico — during a six week study tour of North America.

He joined representatives from 40 other countries at what was the first major gathering of wildland managers from around the world.

Roger's address, on the first day of the conference, focused on fire management issues in Australia and the south-west Pacific.

CALM's Principal Fire Officer Rick Sneeuwjagt — visiting America and Canada on a fire study tour — also attended the Boston conference and addressed delegates on prescribed burning as a means of mitigating wildfire threats in eucalypt forests.

The conference's main aim, says Roger, was to enable wildland managers to share problems, compare techniques for controlling wildfires, and identify the factors in successful fire control programs.

It also aimed to explore ways of improving international cooperation.

"In the last decade, there has been a major increase in large fires in many parts of the world," said Roger, citing as examples Australia's Ash Wednesday fires, the rainforest fires in East Kalimantan and Brazil, the great fire of China and last year's Yellowstone National Park fires in the US.

"There is a clear link between wildfire damage to forests and woodlands and many of the world's other environmental problems."

"Apart from the loss of precious forest resources and habitat, large wildfires



Roger Underwood

put more smoke into the atmosphere, exacerbating the greenhouse effect which, in turn, causes global heating and creates a favourable climate for more fires.

"Despite our many years of fire control experience, fire research and our relatively advanced technology, Australia has serious wildfire problems in common with most other countries in the world," Roger said.

"We still aren't able to prevent catastrophes like the Ash Wednesday fires in the Eastern States, while in WA we suffer huge and damaging wildfires in our northern grasslands and woodlands almost every year."

"It is essential that we get our own house in order, as well as try to help the less developed countries solve their problems."

Injection of love

Veterinary care and being fed octopus via a tube have saved the life of a sealion washed up just north of Hillarys Boat Harbour.

The mammal was washed up twice, the first time responding to vitamins, antibiotics and fluids.

When it didn't respond at a second stranding, the sealion was taken to Atlantis Marine Park by marine

by TANYIA MAXTED

mammal expert and CALM consultant Dr Nick Gales.

It joined another found on a road in Albany, which has since died.

Nick said the sick sealion has an infection and traces of heartworm (microfilaria) were found in the blood.

However, heartworm isn't the primary cause of sickness.

The sealion's conditions

have improved (thanks in part to trainer Mark Whitfield who fed octopus to the animal instead of fish, but tests are still being run and x-rays of the mammal's heart have been taken.

Meanwhile, a cause has yet to be found for the death of the Albany sealion.

Urine and blood samples had been taken, an autopsy at Murdoch University finding the mammal developed

acute pneumonia in its last few days.

Nick says single strandings have a poor success rate.

About six have survived out of some 30 sealion strandings he has been involved with.

He and research assistant Alastair Cheal are presently carrying out seal surveys along the State's southern coast.

Tanyia's on the team . . .

Meet Tanyia Maxted — a new publications officer in CALM's Public Affairs Branch.

Since taking up her appointment in July, Tanyia has been busy writing articles for CALM News and Landscape.

She hails from New Zealand where she completed her education and later trained as a journalist.

There she worked for various newspapers and magazines and was named Young Journalist of the Year in 1984.

A sports fanatic, Tanyia caught America's Cup fever and decided to head west to Perth for the 1987 challenge.

After covering that event for yachting magazines in New Zealand and America, she sailed to the Cocos Islands on an inaugural ocean race and then worked at Victoria's Mt Buller as a commercial photographer.

Now she's back in WA to stay.

Two years' freelancing as a journalist, newspaper sub-editor and public relations consultant convinced Tanyia that WA is a great place to live.

And what could be better than a job with CALM for a person with a keen interest in environmental and conservation issues?

But life's not all work and no play for Tanyia. She plays hockey for Wanneroo, is in training for the City to Surf Fun Run, enjoys cycling and photography, spending time with dogs Boyd and Bess and growing her own eucalypts from seed.



Dr Nick Gales and research assistant Alastair Cheal take a blood sample from the sick sealion.



ABOVE: Cicarone and Maria Minervini enjoyed the sunshine and fresh air. Picture: TREVOR CARBOON.

RIGHT: Digging deep for the environment were Lorenzina Novelli and Natasha Storey. Picture: TREVOR CARBOON.

BELOW: One down but more to go. Jason Digiacoimo plants another bluegum. Picture: TREVOR CARBOON.



After an exhausting — but rewarding — day of planting trees, this Year 10 group slept soundly, said Principal Bob Cross. Picture: TREVOR CARBOON.

Students dig deep for environment

By Kylie Byfield

South Fremantle Senior High School students are digging deep to do their bit for the environment.

But far from donating their weekly pocket money, the students are giving their time to plant thousands of trees.

A group of about 50 teenagers recently planted more than 5000 trees over two days.

The trees, mostly bluegums, came from CALM's Manjimup nursery and were planted on eight hectares of private property at Serpentine owned by Neil Kentish.

The tree planting program was a combined science/geography lesson for a Year 9 group, led by Science Senior Master Ron Turner, and a Year 10 group, supervised

by Geography Senior Master Alan Tuckwell.

School Principal Bob Cross initiated the exercise and provided the student labour while hydrologist Richard Silberstein arranged for the trees and property as part of the Commonwealth National Afforestation Program.

Mr Cross said the students enjoyed their day out of the classroom and were aware that they were making a positive contribution to caring for the environment.

"It was also a valuable educational experience," he said.

Mr Cross said he hopes this tree planting exercise heralds the start of an on-going environmental program in the school.

BIG BROOK CLASSIC IS ON AGAIN

The Big Brook battle is on again — and what a tussle it promises to be!

While Mapping Maniacs go all out to retain their relay crown, Recreation/Planning Branch will do their darndest to make them lose it.

They brought up the rear last year to lay reluctant claim to the Derriere Trophy.

The Maniacs will have to work hard to win this year's event if organisers keep their promise to slow down cyclist Ray Lawrie.

They threatened to tie a log behind his bike this year to give other teams an even chance.

One thing is certain: the Big Brook Relay on Sunday, November 12 will be heaps of fun.

The gruelling event consists of a 12km cycle on gravel, a 900m swim, a 7.5km run, a 3km paddle in Canadian canoes and some crosscut sawing.

Teams must consist of seven CALM employees, preferably from the same work area.

Alan Sands, who is heading the organising committee, says many work areas and districts who have never entered the relay have shown a keen interest this year.

And, following suggestions from last year's participants, the order of events

By Kylie Byfield

has been changed to improve spectator value.

"The emphasis is on having fun and it's a great day out for the entire family," Alan said.

"Competitors and spectators are urged to bring a picnic lunch or something to toss on the barbie, and they should also pack their swimming or fishing gear, canoes and sailboards.

"This event is being held a bit later in the year so the weather should be warmer."

CALM socialites also won't want to miss a bush dance at the Manjimup Timber Park on Saturday night.

But they will have to be up bright and early. Sunday's activities start at 10am with a BMX competition for the kids, followed by a team briefing at 10.30 and the relay at 10.45.

To nominate a team, contact Alan Sands on 364 0705.

"Paddle your own canoe," (left) Crawley's John Blyth seems to be saying to Mary Colreavy as he prepares to jump overboard in last year's Big Brook Relay.



Truck driving course

Harvey district recently held a three-day driver training course.

The course, developed by Tony Brandis, is one of 10 practical in-service programs completed by rangers and trainee rangers as part of their study toward a Certificate in National Park Management.

It is run by instructors from the Road Transport Training Council and advertised

in CALM's Training and Development Manual.

The course focuses on safe and effective descents and ascents; negotiating humps, ditches, sand and mud; the theory of skidding; a revision of the Road Traffic Act; wading through water and the use of anchors and winches.

Participants receive theoretical instruction and watch videos before tackling the practical component of the course.

They learn to drive both light and heavy 4 x 4 vehicles, including 'heavy duties' and gang trucks.

Those who pass both written and practical tests receive a certificate from the Road Transport Training Council.

Uneven terrain can sometimes spell trouble for truck drivers (right), but not for the 16 rangers and trainee rangers who took part in Harvey's driver training course.

The driver training course gave practical instruction in handling steep descents.

Those who pass both written and practical tests receive a certificate from the Road Transport Training Council.



Bunbury parks and reserves officer Neil Taylor (left) and recreation planner Alan Sands discuss access for disabled nature lovers with Authority for Intellectually Handicapped Persons community education officer Pippa Daily-Smith.

Planning for people with disabilities

Pippa Daily-Smith doesn't expect the world to be made flat for handicapped people.

But she's working to ensure some access for them in our national parks and reserves.

As community education officer for the Authority for Intellectually Handicapped Persons, Pippa liaises with CALM's Parks, Recreation and Planning Division.

She recently told CALM participants at an Advanced Recreation Planning and Management Course that people with disabilities have a strong want to be close to nature.

Organised by branch manager Wayne Schmidt, the week-long course was held at the Department for Sport and Recreation's Pt Walter camp for 20 regional district and park staff.

CALM already has a number of facilities for disabled in national parks including a special toilet at Cape Le Grand in Esperance and wheelchair

tracks in Yanchep and John Forrest national parks.

Pippa says everyone has a disability at some time of their life, whether they are pregnant or ill and access makes good sense.

"People with disabilities are people first," she said.

However, she said there can be problems with providing access, as a gap large enough for a wheelchair is also wide enough for a motorbike.

The course explained principles and procedures used in planning and managing natural environments for public recreation, discussed ideas and gave an update on standards, techniques, products and materials used.

Other speakers at the course included Chris Haynes, Jim Sharp, Sue Moore, Richard Hammond, Alan Sands, Gil Field, Steve Slavin, John Goodlad, Ian Herford and Neil Taylor.

John Forrest fauna survey . . .

EXCITING PARK DISCOVERY

A recent CALM fauna survey in John Forrest National Park discovered several mardo.

This little antechinus — a mouse-like marsupial — is a member of the carnivorous marsupial family of which the better known chuditch is a member.

A little bigger than the common house mouse, the mardo lives in hollow logs and tree holes in South-West forests.

The males have a short life; about 90 per cent of them die after one mating season.

The mardo is a nimble and agile little hunter with a main diet of insects living in the deep leaf litter on the forest floor.

For this reason, the mardo does not return to the bush for several years after it has been burnt clean in a hot fire.

On higher land in the jarrah forest its numbers may not reach pre-fire levels for 20 years or more.

They return to the valleys and swamps as soon as the ground litter has reached a certain level.

To maintain an environment suitable for the mardo — and some other species of fauna — it is necessary to maintain areas of forest in an unburnt condition for many years, or to ensure unburnt pockets remain in burn areas.

However, large areas of forest with big quantities of fuel create a severe fire hazard and this is undesirable close to populated areas such as John Forrest National Park.

The park management plan includes a burning prescription to provide a buffer of low fuel areas around the park perimeter and its major recreation areas.

Between these buffer zones a mosaic of forest fuel ages cater for as many types of fauna and flora as possible.

This protects both the public and native animals.

Slips, trips lead to accident-rate rise

The number of days lost due to accidents in the 12 months to July was 1024 days — up 448 on the number lost in the year to July 1988.

The number of medical treatment accidents rose to 134 in the year to July 1989 up from 115 in the previous

12 months.

Last July there were three lost time accidents and 11 medical treatment accidents. This year the figures are three and 12 respectively.

Slips, trips and falls are the most common causal factor in these injuries.

WALK TALK AT ICY CREEK

Aboriginal leader Ken Colbung brought the Bibbulmun people to life when he participated in the Bibbulmun Walk pre-walk preparation at Icy Creek recently.

Ken told the story of his people and the original Bibbulmun Track.

He presented the group with a Bambooroo, a message stick, which will be carried on the journey to ward off evil spirits.

Forty intrepid walkers, including many from Over 55 club, took the opportunity during the weekend to test footwear, equipment, clothing, sleeping bags and tents.

They also took part in two bush walks to test their fitness.

CALM's safety back-up was tested when one group of walkers became lost and headed in the wrong direction before being rescued by Lane Pool Reserve Ranger John Hanel.

Preparations over, the walk starts in Kalamunda on Saturday, September 16, finishing in Walpole 31 days later.

BRYAN'S FLIPPED OVER DESCENT

Como stores officer Bryan Nicholson got more water than he bargained for when entering his first Avon Descent earlier this month.

While the water level was arguably perfect for the event, Bryan's boat was flipped, holed and almost sunk.

Fellow stores officer Sean Bryce was a member of Bryan's support crew.

Bryan entered the Descent after being support crew for a surfski for several years and following the event for the past 10 years.

By Tanyia Maxted

He and teammate Geoff Cook began in 80th position on the starting grid at Northam with the WA Police boat, finishing 22nd overall.

Only 40 per cent of the original power boats finished.

Bryan was extremely pleased with his first effort, despite being flipped out at Emu Falls in the Avon Valley National Park when another competitor rammed

his boat.

It took he and Geoff 35 minutes to get back in the race, having to drain the boat again at Syd's Rapids in Walyunga National Park.

The boat has since been panelbeaten back into shape and extensive repairs made to the engine.

Bryan hopes to gain sponsorship for next year's Descent and is presently negotiating with Challenge Marine.

He and Geoff will race again in September in the Blackwood Classic.



Como stores officer Bryan Nicholson and teammate Geoff Cook negotiate a small rapid during the Avon Descent.

STAR FLOWER GIVEN BREATH OF LIFE . . .

An endangered plant species — the Bindoon star flower — has been given the breath of life.

Recent Main Roads Department maintenance on a section of the Great Northern Highway north of Bindoon resulted in the germination of 69 Bindoon star flower (*Asterolasia nivea*) seedlings.

The star flower is a rare and endangered species of flora — only 10 adult plants are

known to exist in this one area.

As some of the seedlings had grown just centimetres from the road, relocation was proposed and since given approval by CALM Minister Ian Taylor.

Twenty four seedlings were relocated to a nearby nature reserve vested in the National Parks and Nature Conservation Authority using techniques recommended by Kings Park and Botanic Gardens experts.

This was carried out by CALM senior technical officer Ron Sokolowski, Kings Park horticultural advisor Bob Dixon and a small team of departmental staff including Les Robson and Len Talbot.

Only time will tell if relocation has been successful.

Even if all seedlings survive, the species' long-term survival in the fragile road verge habitat is still uncertain.



TOP RIGHT: The sign says it all — Mundaring District Manager Peter Keppel talks to Kyran Bradley from Toodyay 1st District Scouts at Avon Valley.

LEFT: Hardy Derschow from Yanchep National Park directs support crew traffic to Walyunga's lower carpark.

BELOW LEFT: ON TRACK: Kelmscott Regional Recreation Manager Ron Waterhouse and John Forrest National Park Ranger Keith Tresidder keep track of trains above Emu Falls.

BOTTOM LEFT: Yanchep ranger Lance Jackson collects national park fees at Walyunga.

BOTTOM RIGHT: Organiser Bill Adams checks on activities at the Avon Valley National Park airstrip from the lower bus area.



**CALM caring...
...naturally**



Second success for Avon buses

By Tanya Maxted

This year's Avon Descent marked the second successful year for CALM's bussing scheme in the Avon Valley and Walyunga National Parks.

The event passed through the parks without incident or extensive littering.

About 20 rangers, foresters, officers and workers from Mundaring, Yanchep and Walyunga were part of CALM's Descent involvement.

As well as making sure it all flowed smoothly on the day, signs had to be made and erected, culverts constructed and grading works carried out.

On the Sunday, some 800 cars parked at Avon Valley, while 400 — about 100 down on last year — parked at Walyunga.

Buses transported spectators and support crews to and from the river.

The organiser, Mundaring Senior Forester Bill Adams, was pleased with the day, although he suspected more people were visiting Bells Rapids than

Walyunga.

He also thought more publicity should be given to the volunteer groups who collected parking fees from motorists, as they benefited from profits.

The Toodyay 1st District Scouts collected fees at Avon Valley National Park, another group collecting for Appealathon and Safeway

House at Walyunga.

Bill said he was hoping to meet with the WA Tourism Commission over funding to upgrade the road leading into the Avon Valley National Park, which he considered was presently dangerous.

Mundaring District Manager Peter Keppel said he was impressed with the

cleanliness of Walyunga National Park during the weekend, where spectators were mostly families.

Unfortunately, there wasn't as much consideration at Avon Valley, he said, as it was the first point of call for campers.

The organisation of next year's activities is due to begin almost immediately.



The Men from Avon River (There was movement in the ti-trees...)

Mist clung to the valley ti trees, water swirling beneath. A western grey grazed unaware, motionless against the wandoo.

Past the nesting shags a single blade disturbed the flow, first one off the grid.

Another, then two... Jackets zipped, the rangers waited, all signs in

place. Above the gravel railway tracks they pointed campers to the Scout-manned airstrip, below it, keeping track of trains.

The men from Avon River had been there since darkness — an hour, maybe more.

They'll be there all day — till the last paddle and powerboat passed, the last

spectator bussed out.

From Emu Falls 40kms by river to Walyunga, where Yanchep's rangers stood their ground.

Syd's gushed with anticipation. People weaved through rocks to vantage points, picnics in the sun.

Another Avon Descent underway, another national parks awareness day.





They flew in from everywhere ... Kimberley staff at Fitzroy Crossing.

Kimberley crew meet at Fitzroy

They came from here ... they came from there ... they came from just about everywhere to the Kimberley Regional meeting at Fitzroy Crossing recently. Considering the distances in-

involved in the region it's not often the Kimberley staff get together, but this year's meeting was one such occasion. It enabled new staff to meet with their regional colleagues for the first

time. Regional Manager Chris Done said the meeting was very valuable. He said he hopes that despite the cost in time and money meetings in the future will be held twice a year.

Wheatbelt meeting sets goals

Regional meetings are a family affair, a gathering of people with common goals and objectives.

This year's meeting of the Wheatbelt Region at Narrogin was no exception.

Twenty staff employed in the region from district offices as far apart as Merredin and Katanning attended this year's meeting on June 6-7.

The first day's program, which included a fitness program at the Narrogin Recreation Centre, looked at the role of the ecologist in the region and safety

issues.

Regional Manager Ken Wallace was satisfied that the day's objectives, which included an attempt to achieve specific training goals and to develop a more cohesive and effective regional workforce, was achieved.

A further objective — for all staff to make a determined effort to get to know each other better — was achieved at a sundowner after the day's formal proceedings were completed.

Participants on day two examined regional policy

and a syndicate exercise looked at a local problem in relation to nature reserves.

Guests — Policy Director Chris Haynes, Operations Manager Jim Edwards and Public Relations Officer Richard Grant — took part in the activities.

Chris' involvement in which he spoke of the relationship between CALM and Aborigines, was particularly pertinent to the syndicate work.

With all objectives met at the end of the day, next year's meeting will be more like a reunion than a family affair.

Volunteers add string to bow

Vice Regal visit

As part of a Pilbara tour, the Governor General and Mrs Hayden visited Millstream Chichester National park last month.

After a lot of organisation, including a last minute telephone call to find out what sort of shoes Mrs Hayden should wear, the dignitaries and their entourage arrived in an RAAF aircraft at the old airstrip near the Millstream Tavern, which was originally a station homestead.

Millstream has long been acknowledged as a unique and outstanding area; a virtual oasis amid the surrounding dry, dusty plains.

A couple of leisurely hours were spent looking at and photographing the old homestead and surroundings.

Ranger, Bruce Woodley, took the party on a short walk along the walk trail to the Chinderwariner Pool which was once an important campsite of the Indjibundi people who lived along the Fortescue Valley. Millstream is still of great significance to Aboriginal people.

It wasn't long before they all had to return to the plane and be whisked off to their next civic reception in Karratha.

Apparently, the couple of hours spent meandering around at Millstream was indeed an oasis of "CALM", so to speak, in an otherwise hectic Pilbara visit.

And for those that simply must keep up with the latest, Mrs Hayden wore dark, low-heeled shoes!

A recent trial in Dwellingup showed that the use of volunteer campground hosts should be highly successful.

Richard Fairman of Dwellingup Research acted as volunteer campground host during the trial, held in Easter at Lane Poole Reserve.

While on holiday with his family at Nanga Brook, Richard displayed the CALM logo and was

available to answer queries.

The Host helps to disseminate pamphlets, provide information through personal contact, deter trouble-makers, make emergency communications and improve the public perception of CALM.

The Lane Poole Reserve is so popular that up to 12,000 campers use the area during peak periods such as Easter.

The facilities and Dwellingup's staff resources are inadequate at such times and volunteers will provide invaluable support.

Volunteers could also check and maintain walktrails and help clean up particular areas.

The potential uses for trained volunteers are virtually unlimited and should prove a handy extra string in CALM's bow in years to come.



A HAPPY FAMILY: Wheatbelt staff gathered in Narrogin for the annual regional meeting.

Nannup celebrates planting success

It was timely that the Nannup safety awards were presented by Executive Director Syd Shea on July 14.

Earlier in the month, CALM had received some controversial press in the district and the time was ripe to reassure staff and congratulate them for achieving no lost time due to accidents in the last year.

Syd spoke of the need for the country to produce commodities so the nation can offset its huge import bill and we can maintain a good standard of living.

He said that with CALM's pine resources in the district, we would now need to look after it and generate wealth.

"We're good at producing trees and the products from them," he said.

"The planting in the past will come slowly to fruition and help create a better community in Nannup and a better balance of payments for the country."

Syd told the gathering that CALM wants 'doers'.

"There will be mistakes, but we want 'doers', not those who sit on the fence and do nothing," he said.

A special booklet on CALM's achievements with Radiata Pine in the district was given out to enable staff

to liaise and better inform the community on CALM functions and achievements.

Syd said there are lots of honorary CALM people working for the same cause and these people would be some defenders of the department.

Although CALM did well on past budget and we earned money last year, Syd

emphasised that a harder budget was coming and Nannup District would need to increase planting in 1989/90.

In light of their record of an accident-free year, Syd congratulated the staff and called on local MP Bill Stretch to present individual awards.

— JOHN HUNTER



Nannup Acting District Manager Roger Banks (left) displays the IFAP safety award, watched by local MP Bill Stretch and CALM's Executive Director Syd Shea.



Relaxing after the safety presentation, from left: Bill Cuthbert, Di Kelly, Jim Craige, Isobel Green and Therese Jones.



Jim Green (left) and Di Kelly, part of Ric Shelley's pine planting crew.

Pastoral property purchased

Jaurdi Pastoral Station has been purchased under the State Government's Sandalwood Conservation and Regeneration Project (SCARP).

It is the first station acquired under the scheme, launched in Kalgoorlie last year.

Also known as Timberfield, the 320,000ha station is situated north-east of Southern Cross.

CALM purchased the lease — which contains excellent stands of sandalwood and good sandalwood regeneration — for \$65,000 after lengthy negotiation with the previous

pastoralist.

Kalgoorlie regional staff will inspect the lease to determine management, maintenance and budget requirements (the lease was transferred as pastoral but will be converted to a more appropriate tenure according to these needs).

It will be destocked by

next February.

The WA Museum's biological survey of the Eastern Goldfields defined valuable sites within Jaurdi.

Rare flora has also been discovered on the lease.

The area has been recommended as a reserve by a System 11 review coordinated by Woodvale Research.

SATELLITE TECHNOLOGY PINPOINTS BOUNDARIES

Ningaloo Marine Park's sanctuary zone boundaries have been positioned using satellite technology.

CALM recently completed field work to establish the survey points in conjunction with Curtin University and the Department of Land Administration (DOLA).

It's the first time satellite technology has been used to accurately position management zones in WA.

The boundaries of sanctuary zones will be identifiable on land and from the water, assisting users of the park to locate themselves in relation to sanctuary and recreation zones.

The survey points will also be visible on recently taken aerial photography of the coast.

These photographs and the control points will provide a valuable tool for future research and management of the park.

The survey field work meant a lot of late nights for Curtin students, CALM and DOLA staff as satellites over the Exmouth area were only available during four hours around midnight.

Equipment used included Global Positioning System (GPS) receivers and long-range Electronic Distance Measuring (EDM) devices.

Two Trimble model 4000 SL satellite receivers owned by Curtin University and Woodside petroleum were used by students and PHM Survey Centre loaned CALM two Ashtech XII satellite receivers.

(Using receivers in tandem, accuracies within 15 centimetres can be expected in measuring lines 20km long.)

Satellite fixing for position involves setting one receiver over a point with known coordinates and the other on an unknown station and allowing the instruments to electronically lock onto navigation satellites.

When sufficient satellites are available above a predetermined horizon, resection of individual signals defines the occupied point on the earth's surface.

The satellite observations were complemented by more traditional surveys using theodolites and EDM's.

These surveys will form a major part of the Curtin student's progress toward attaining surveying and mapping degrees.



Ross McGill shows how the seeded clover has started to stabilise the carpark bank.

New technique tackles erosion

Erosion troublespots have been stabilised at Walyunga national Park.

Works carried out in March saw the redevelopment of the lower carpark and construction of a rock retaining wall along the riverbank.

Large areas have been fenced off, cross-ripped and seeded with native plants for rehabilitation.

The works cost a total of

\$60,000.

To stabilise and green the banks of the new lower carpark a hydromulching technique was used.

Matting was lain over the bare clay which was then sprayed with a paper mulch containing native seed and clover.

While the native plants will take up to a year to become noticeable, the clover has already started to colour the bank.

Walyunga National Park Ranger Ross McGill says further works have been planned for the park this financial year.

These include the upgrading of walk trails, the completion of the carpark and picnic areas and the replacement of signs throughout the park.

Rocks will be removed from the walk trail to Syd's Rapids to make a 1.5 metre wide track.

CHARGED UP FOR WINTER

by TOM WOOD

Ah...winter! A warm cosy fire in the evening, a mist in the cold crisp morning and jumpers; not the woollen variety but jumper leads to start the damn car!

The use of jumper leads to start a vehicle with a flat battery is a common practice in winter, but many people are unaware of the hazards involved if carried out incorrectly.

There is always a risk of a battery explosion when jump starting a vehicle as gas inside the battery can be ignited by a spark, resulting in a shower of sulphuric acid.

When using jumper leads, observe the following procedure:

*Before connecting leads make sure both batteries are the same voltage (6 or 12 volts) and identify the polarity of both batteries. Turn off motors and electrical equipment, place both vehicles in neutral or park, and

put the handbrakes on. Do not let vehicles touch each other.

Remove any rings, metal bracelets or a watch you may be wearing to avoid the risk of burns through short circuits.

Use properly manufactured jumper leads. Always connect the jumper lead to the earthed terminal last and disconnect it first.

Identify the positive larger terminals and connect together.

Identify the negative smaller terminals and connect together.

Start the vehicle receiving

Plant identification can involve some 'dirty' work, even without getting your hands soiled!

Ray Cranfield, the Herbarium's Senior Technical Officer, was recently checking a specimen of knotweed (*Polygonum prostratum*), when he noticed a fungal growth on the plant.

This was sent to the Agriculture Department's Plant Pathology section, where it was identified as *Ustilago utriculosa*, a smut-fungus which had not been previously recorded in WA.

The specimen is now in the Herbarium plant pathology collection.

the battery boost.

Disconnect the negative jumper lead then disconnect the positive jumper lead.

Remember when using jumper leads that the procedure should be carried out with extreme caution, especially when attaching and disconnecting the leads.

Always hold the leads by their insulated handles, never by the bare metal ends.

Note: Water will wash off battery acid splashes to skin and clothes. If eyes are affected, flush with water and seek medical advice if necessary.

CITY SHOPPERS DISCOVER ENVIRONMENT

About 60,000 people were encouraged by CALM recently to 'Discover their Hidden Environment' during the Conservation and Environment Awareness Promotion of the Metro Maddington Shopping Centre.

The Northern Forest and Metropolitan Regions' incredible interactive display delighted shoppers of all ages — from toddlers to grandparents.

All became involved in discovering the 'Tree of Life', the residents of the 'Habitat Tree', the wonders of the Wetlands, or colouring in posters, doing puzzles or making gumnut babies.

Mrs Joy How, Promotions Manager for the Centre said: "The display has attracted very positive comments from shoppers and the display and the activities have attracted both old and young alike."

"In particular", she added "we (the management) have been very impressed by the professionalism in which the display has been 'manned' by the staff members of CALM.

It has helped make our job in Centre Management that much easier having a team of people who know what they are doing and get on and do the job."

Congratulations and thanks to all those staff from the wide range of sections and districts who have participated in this display. You have helped bring CALM to the public in an extremely positive way." — RAE BURROWS.

National Park extended

Mt Frankland National Park has been extended by 256 hectares.

Located north of Walpole, the park comprises a total of 30,830 ha.

It was created by CALM last December, along with the Shannon National Park.

Mt Frankland's original boundary was determined when the area was being changed from State forest to national park classification.

The WA Water Authority had suggested the park's northern boundary be altered to include 256ha of land to complete protection of the Weld River catchment.

The area has been established by the Water Authority as an "benchmark gauged catchment" to monitor any long term rainfall changes.

This information is considered vital for future water resource planning and catchment management.

The boundary change has been approved so the catchment is not affected by land use (for example, harvesting) which could alter future data.

CHALLENGE 2000

Restoring nature's balance was the theme of CALM's display at Challenge 2000 — Curtin University's recent open day.

CALM shared a tent with Greening Australia, Alcoa, Men of the Trees, Mulga Research and the Department of Agriculture.

It was the first time such a range of industry, university and community groups had been represented under the one roof.

At CALM's display, Public Affairs staff John Hunter and Louise Burch were on hand to give out balloons and brochures on the department's reforestation project.

About 5000 information brochures were given away during the day.

Also spreading the department's message were Radio talkback host Ruth Elks, her daughter Christy, Curtin student Claire King and CALM scientific advisor Paul Jones.

Trees and plants were planted around the campus using a CALM vehicle and tools, experts demonstrating the correct techniques.

Conference Postponed

The Fifth Australian Soil Conference has been postponed until next march.

National pilot strikes forced organisers to change the date of the event originally scheduled for September.

The conference was to be held from September 14 to 15, with 10 specialist workshops held throughout the State from September 9 to 13.

Calm principal research scientist John Bartle was the convener of the Retention and Replacement of Vegetation workshop, to be held in Dwellingup.

Delegates were expected from the Eastern States and New Zealand.

Staff News

APPOINTMENTS

Sue Hancock, planning officer, Geraldton; Tanyia Maxted, publications officer, Public Affairs; Vicky Metcalfe, parks and recreation officer, Manjimup and Mike Waite, senior environmental officer, Environmental Protection, Como (formerly with EPA).

PROMOTIONS CONFIRMED

Klaus Tiedemann to district manager, Esperance; Dave Tenardi, fleet management clerk, Engineering Branch, Como; Greg Napier, forester gr 2 (Ops), Wanneroo and Stephanie Powell, clerk, Marmion Marine Park.

TRANSFERS

Tim Mitchell, forester gr 2 (Ops) to Manjimup and Mark Barley, wildlife officer, to Ludlow.

