CALMINEW

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

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July 1991

## Arbor Day - CALM style

by Tanyia Maxted

ARBOR Day and the week leading up to it s a busy time for **CALM** staff involved in the annual 'tree fever'.

In June and July, as CALM staff around the State began planting 2600 hectares with native seeds, seedlings and pine seedlings, other staff worked to make the public aware of the Department's aims and activities.

An interactive display was held at the R&I Tower in Perth from June 3-7 as part of the Greening The West exhibition, featuring a children's art session with a guest artist, and a static display about dieback and the LANDSCOPE-6WF Arbor Day Poster Competition.

The art session, which attracted two metropolitan primary schools and many

ore children passing through, was a sequel to the successful Art in the Environment program run in Serpentine National Park during the school holidays by Laiene Maxted, and ranger David Lamont.

On Arbor Day morning, the winners of the Arbor Day Poster Competition were announced by Minister for the Environment Bob Pearce and CALM Executive Director Dr Syd Shea on 6WF's Ted Bull breakfast program.

The same morning, CALM Aboriginal projects officer and former dieback interpretation officer Graham Ellis-Smith appeared on Channel Nine's Grant and Cameron Show.

Surrounded by native Western Australian trees and with native WA seed-'ings to give away to the audience, Graham talked about Arbor Day and dieback disease.

And at 11.30am, 370 schoolchildren from seven schools gathered on Matilda Bay Reserve, Crawley, for the biggest tree celebration yet.

Attended by Premier Carmen Lawrence and Minister for the Environment Bob Pearce, the celebration saw the reserve come alive with folk dancing to a bush band, balloons, hot dogs, songs from a 90-voice school choir and more.

Guests included staff from the Australian Heritage Commission, Lands and Forests Commission, National Parks and Nature Conservation Authority and Forest Production Coun-

As well as many CALM staff from Perth, there were CALM national park volunteers and a tree planter from each forest district.

The Premier gave an address highlighting the importance of Arbor Day and the value of trees to the environment and our community.

She then presented the District Governor of Rotary District 946 (Mosman Park to Esperance) with special Dieback Speakers Kits for the dieback public awareness program, being run by CALM and Rotary.

Bob Pearce also addressed the gathering, talking about the role and extent of tree planting in WA.

He then planted a ceremonial tree with the assistance of Elizabeth Carson, a student from the Kim Beazley Special School.

All schoolchildren were presented with a balloon and a tree, and joined other guests with a lunch of hot dogs and drinks.

The Nedlands Primary School Choir, who performed at the IUCN (World Conservation Union) annual conference, sang two songs at the celebration.

Pictures, a poem and more on Arbor Day 1991 see pages 4 and 5



Two of many mile-wide smiles seen on Arbor Day 1991. Photo by David Gough

## Wildflower country

WILDFLOWER Country is the latest release in CALM's best-selling series of nature guide books designed to take a closer look at specific areas of our vast State.

The book covers all the national parks, nature reserves and other natural attractions from Jurien Bay to Shark Bay and inland as far as Meekatharra, with particular emphasis on the region's outstanding flora.

It deals with the history, local attractions, flora and fauna of five areas the Northern Sandplains, Batavia Coast, Northern Wheatbelt, Murchison and Shark Bay.

Carolyn Thomson and John Hunter from CALM Corporate Relations Division edited the book and Sue Marais worked on the

"The book was special in that it was very much a joint effort from a large number of people from all over CALM," Carolyn

"We drew heavily on the expertise of people like Steve Hopper and Penny Hussey, who provided valuable botanical advice and wrote some sections of the book," she said.

written by CALM's Sue Roberts, Andrew Brown Hancock, Ron Shepherd,

Caris Bailey, Gil Field, Andrew Brown, and Greg Keighery, while academics Diane Walker and John Huisman co-wrote the section on seagrass.

David Rose and Keith Hockey also helped enormously in the book's preparation by their guidance in the field.

Jiri and Marie Lochman's photography is heavily featured in the book, but many other superb photographs were provided by photographers Michael Morcombe and Robert Garvey and CALM's Steve Other sections were Hopper, Tony Tapper, Phil and Penny Hussey.

"We were pleased to be able to utilise the outstanding photographic work of CALM staff, which compared well with that of the professional photographers," Carolyn said.

Bob Symons, Ray Lawrie, Cheryl Leonard and Stella Bickmore from Land Information Branch produced the full-colour maps, which help to make the book user-friendly.

Wildflower Country includes a wildflower calendar compiled by Penny Hussey that lists flora speand their colours localities, according to the

There are also compre-

hensive wildflower indexes - almost 200 typical flora species are listed by both common and scientific names - and a location index that lists all the places featured in the book and gives map references to help pinpoint them.

Wildflower Country is ideal for anyone with an interest in Western Australia's flora and is ready just in time for this year's wildflower season.

It is available from major bookstores or direct from CALM for \$19.95.

CALM staff can chase it for the special price of only \$15.96 (see order form on page 8).

## Postcard views

NATIONAL Parks of Western Australia: The Postcard Collection is the working title of a new saleable publication to be produced later this year by CALM.

The book will contain approximately 24 tearout postcards and several pages of text describing the role of national parks and CALM in providing for conservation and eco-sensitive recreation.

The market for the book will include visitors to our parks, schools, and the general public looking for an inexpensive but environmentally friendly gift purchase.

"This publication will generate revenue that will underwrite less commercial communication and education activities and will also help CALM reach a wider, possibly unfamiliar, audience," according

to Ron Kawalilak, Acting Director of Corporate Relations

The book will be designed as a prototype for a series which may include WA's endangered flora and

"There are obvious jewels in the national park system, such as Shannon, Geikie, and Purnululu, that will lend themselves to this postcard treatment," Ron

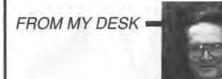
"Our first step in developing this project is to compile a list of suitable parks and features."

CALM staff with ideas on parks and park features that should be included in this book are invited to send their suggestions, by August 19, 1991, to:

> Postcard Book CALM Corporate Relations Cygnet Hall Crawley.



Kingia. Photo by Steve Hopper



CALM's 1990-91 budget has closed and we have done an incredible job by coming in within a few thousand dollars of the target expenditure budget. This after absorbing probably our worst additional costs due to emergencies, such as the extreme fires in February. I appreciate that everybody worked very hard in achieving this objective and it was not without cost. It is also important to realise that the revenue side of our budget unfortunately was significantly down, primarily as a consequence of the depression in the timber industry.

We cannot rest on this achievement. Anybody who has read the papers over the last few weeks will know that both the public and private sector are facing extreme budgeting problems. It is important to realise that the problems won't be solved when the economy begins to pick up.

Australia has to make severe structural changes to its economy if it is to retain the level of prosperity we've all enjoyed in the past. Australia has to compete on the world market with other countries, many of whom were at the bottom of the barrel after the second World War, and are quite literally blowing us out of the water with their innovation and productivity.

The good news is that, unlike other countries, we have abundant resources and we have shown in the past that we are capable of using these resources in an innovative and productive way. Our current parlous situation is partly a consequence of our organisational and institutional structures developing characteristics which have become handicaps. These are things that we can change.

CALM cannot be isolated from what's happening outside our Department. We have to change as well. Although this year's budget will be tough it will still enable us to effect the changes that we have to make.

CALM has many diverse activities and opportunities to take initiatives to deal with the crumbling economic cake. We can, without additional impost on the State budget, earn revenue which will in part compensate for a declining overall budget. We also can continue to improve our efficiency by effective integration of all the skills that abound in this Depart-

The most important thing we need to do to realise this potential is to change our culture. We can no longer afford institutional constraints such as demarcation disputes and we can no longer not bother to take revenue-gathering initiatives because "it all goes back to Treasury anyway".

I am pleased that in many areas of the Department there is a realisation that we have to change and this is reflected in many innovative proposals we are receiving. I am always loathe to single out any group, but our AWU staff are leading the way.

I am also conscious that this office also needs to confront change and provide the vehicle for people to bring about change throughout the Department. The Corporate Executive wants to facilitate the process, but we need your help to show us the way to remove obstacles that you see, to changing the culture of the Department.

Dr Syd Shea, Executive Director

#### STAFF NEWS

#### **Promotions**

Kevin Vear to Regional Manager, Southern Forest Region, Manjimup; Julia Lewis, Programmer/Analyst, Information Systems, Como; Jim Sharp, Manager, Policy and Extension, Murdoch House.

#### Transfer

Melfyn Price, Reserves Management Assistant, to Metropolitan Region; Mark Roddy from Forest Ranger to Park Ranger, Walpole.

#### Retirement

Brian Brody, Industrial Officer, Human Resources Branch, Como, who joined Forests Department as Administration Officer, Collie, 25 years ago; Don Munro, Senior Technical Officer, Woodvale, who joined Fisheries and Wildlife 24 years ago; and Geoff Keen, Park Ranger, Fitzgerald River National Park, who will retire in August after more than 15 years' service.

## Tongue-incheek bird banding

WOODVALE research staff Stuart Halse, Grant Pearson, Phil Fuller, Andrew Storey and Don Munro (recently retired) have been more than thoroughly immersed in their work over the past two years.

Scopewest, the name of their Swan Coastal Plain waterbird tagging project, has required staff to develop the skills of trapeze artists while maintaining perfect health and a good sense of humour.

Ducks were easily netted onshore, but other waterbirds had to be wingtagged or banded while still in the nest. With egrets nesting at 15 metres above water, night herons at 6m, spoonbills at 3m and ibis on the surface, it was fun, fun, fun for the intrepid

Grant Pearson, long serving wader, bird catcher and lake tester, provided the following description of skills acquired by the team since Scopewest

Phil Fuller, being 159cm in his socks, mostly worked lakes 160cm deep. It was interesting to observe him in shallower waters where he would drop into deep holes with unerring accuracy while guiding the 16 metre extension ladder between fallen logs, underwater snags, tiger snakes and still maintain his balance.

Waterproof waders (overalls) worn by members of the team inevitably filled with water, leeches and assorted vegetation. After lifting a huge volume of "soup" halfway to a nest, it was opportune to then empty the contents overthe clown who knocked the ladder causing diving practice at the previous tree. A quick descent and total immersion would again fol-

The green water was believed to contain every disease known, an issue lost on Project Leader Stuart Halse, who often found the need to inspect the lakebed for benthic organisms and the odd undescribed ostracod, the latter being found after filtering slime through teeth and remnants of duckweed.

Egret extraction was approached by selecting assistants whose knuckles touched the ground. They climbed while those whose

by John Hunter

belly touched the ground were tied to the base of the ladder to stabilize it. This prevented the ladder from slipping sideways, ripping off strips of bark and leaving an unsightly trail of blood and remnant finger-

It was also extremely important to keep the fully extended ladder as vertical as possible. Even this at times did not prevent rotting treetop branches from disintegrating, bowing the ladder, flicking the climber into a nearby tree and providing those below with top class entertainment.

After each tagging and banding exercise, the final trick was to avoid walking into a town pharmacy smelling highly of bird excreta and vaguely resembling a bedraggled Ibis.

While trying to secure much-needed supplies of de-lousing shampoos and a litre of insecticidal swab, the resultant rush of shoppers from the pharmacy threatened to adversely affect the self esteem, plunging one into a trough of emotional despair.

In all, though, the team enjoyed the Scopewest program and is at present preparing for the coming



A TRIAL fee collection system at Nambung National Park has yielded some spectacular results.

Until recently, Nambung used a self-administered scheme to collect large degree on people's honesty.

"We estimated that about 25 000 vehicles visited the park each year, including many coaches," said Moora District Manager David Rose, "yet we were only collecting about \$6 500 in fees, over the entire year."

The District approached Policy and Extension Manager Jim Sharp about this situation, and it was decided to employ a part time gatekeeper to collect fees for a one-month trial pe-

About \$11 000 was collected during the trial, which took place during April.

The move was so successful that it will continue for at least the next financial year and Park Ranger Keith Hockey conservaby Keith Hockey

tively estimates that at least \$60 000 will be collected over that time.

Some of the extra funds park fees, which relied to a have already been returned to the district to assist in managing the park. Much of the credit for the success of the operation must go to the diligent efforts of Arthur "Pickles" Pitman, the gatekeeper involved.

Pickles has a polite and helpful manner, and manages to send park visitors away with a smile on their faces, even though their pockets are a little lighter.

Pickles had to handle some difficult situations whilst 'breaking the ice' with regular park users, but visitors have now begun to accept the position. As well as raising revenue for the Department, Pickles also collects valuable visitor statistics for the Department's VISTAT program.

His mere presence at the gate has led to a decline in vandalism of the Pinnacles.



A WELL-KNOWN forester, George Peet, was recently honoured by the award of membership of the Order of Australia for his pioneering work on the development of aerial prescribed burning. Congratulations,

Until his retirement in May, 1989, George was a member of the Forests Department and the Department of Conservation

and Land Management, in

Western Australia.

by Frank

McKinnell

Grant Pearson and Phil Fuller with young egrets at Australind Egret Swamp.

With the late Alan MacArthur, he was a pioneer in fire behaviour research in eucalypt forest of Australia.

After developing reliable fire behaviour guides for fuel reduction burning in jarrah and karri forest types in the early '60s, George turned his attention to the problem of techniques to cover the large areas of forest concerned, with limited manpower and a limited "window" of suitable burning time.

In cooperation with Dr David Packham (also honoured with an OAM for this work) and his group from CSIRO, who produced the idea of a slow-igniting incendiary and a machine for dropping them from aircraft, George and his fire research team from Manjimup developed the system, using aerial ignition to achieve broad scale fuel reduction burning. This was a world first.

The film "Flight Line One", demonstrating the techniques and system, made George well-known throughout Australia and North America.

The technique has since been adopted in all other states and territories of Australia and in Canada and the United States.

The same basic technique has been

extended from fuel reduction burning in the south west forests in Western Australia to fire management in the Kimberley savannah and for wildlife habi management in the Gibson

Desert. In the forested parts of Western Australia, aerial prescribed burning has been the cornerstone of a highlysuccessful fire management system since 1965.

During this period, the value of fuel reduction burning for preventing large-scale wildfires has been proven again and

The classic example was during the fire emergency caused by Cyclone Alby in 1978, when at one time there were 62 fires running in State forest alone.

It was only the network of fuel-reduced forest which prevented a major disaster. That network was a direct result of George's

George moved out c' research in 1972 and into fire management where he remained for several years, implementing the results of his research.

From there he moved into forest regional administration in the northern jarrah forest where, as always, he brought his distinctively innovative and forceful approach to the problems at hand.

Since his retirement in 1989, George has been doing his best to keep his promise to wreak havoc on the fish population at Dunsborough and to go camping at all the remote parts of Western Australia he never had time to visit before.

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### **CALM** cadet wins coveted award

BILL Cuthbert, now a park ranger at Leeuwin-Naturaliste National Park, was recently presented with the coveted Keynes Memorial Prize by Minister for the Environment, Bob Pearce.

The Keynes Memorial Prize is awarded to the field cadet who demonstrates outstanding performance in both theory and field work.

The ceremony was conducted at the Lord Forrest Hotel, Bunbury. where the Minister was a special guest for the pres-

Mr Pearce spoke highly of the cadet program, commending the course content which he said had a balanced combination of both theoretical and practical lessons.

He then presented certificates awarded by CALM, and the Principal of Bunbury South West by Alan Byrne

College, Mr Frank Whitmore, presented certificates awarded by TAFE.

Executive Director Dr Syd Shea was also on hand to congratulate and welcome the graduates into CALM and to present his special award to Donna Green and Paul Blechynden, who equalled each other for all-round merit in all aspects of the course.

Donna and Paul work as forest officers at Pemberton and Margaret River, respectively.

The other graduating cadets were Darren Ball, Mark Graves, Peter Gibson, Edward Hatherley, Daniel Hunter, Therese Jones, Matthew Lloyd, Ian Miscamble, John McKenzie and Paul Udinga.

They had all successfully completed a two-year cadetship which involves theoretical and practical lessons.

For the first year, cadets attended Bunbury South West College, studying biology, fauna characteristics and identification, ecology, mapping and horticultural soils.

Their second year was spent at CALM's Dwellingup Cadet Training Centre, where they received theoretical and practical instruction in silvicultural management, fire management, recreation, law enforcement, environmental protection and utilisation of forest products.

The course was designed to provide a steady flow of trained staff to meet CALM's needs to provide competent junior supervisors and managers and to lay the foundations on which field officers can develop satisfying careers.



Tina Dalton with Bushbeat crew at Monkey Mia. Photo by Gil Field

## We're on Bushbeat

BUSHBEAT, a national natural history/science program broadcast by Channel 9, will soon showcase several areas managed by CALM.

The show's presenter, Tina Dalton, and CALM's Senior Interpretation Officer, Gil Field, both used to work for the Queensland National Parks and Wildlife Service.

Tina was keen to incorporate Western Australia

ONE of CALM's best-sell-

ing publications, Shark

Bay, is to be made into a

Wilson, the book will be

transferred onto an audio

cassette by Activ Founda-

tion, a voluntary organiza-

tion providing vocational,

residential and recreational

services to people in West-

ern Australia who have

developmental disabilities.

Written by Dr Barry

talking book.

into the program and contacted Gil for help with the travel, identifying stories and making contact with CALM staff.

'Tina was keen to film here, as there is a significant local audience and WA has a lot to show and tell the eastern states," Gil said.

As a result, Gil and Tracey Churchill, from Recreation and Landscape Branch, accompanied the Bushbeat crew to Coral Bay.

Here, Bushbeat filmed the coral spawning and interviews with Marine Park Manager Sue Osborne and Environmental Protection Authority's Chris Simpson.

At Cape Range, the western bowerbird, euros and the Milyering Visitor Centre were filmed and Gil was interviewed about the centre's design.

At Shark Bay, Bushbeat filmed the dolphins at Monkey Mia, including a

'meeting the dolphins' segment (the footage will be used at the information centre at Monkey Mia).

Later in the afternoon they filmed the stromatolites - cyanobacterial colonies related to the oldest known life form on earth.

South to Jurien, Bushbeat recorded interviews with volunteers who assist with the research and monitoring of the island's sea lion populations.

Back in Perth, Bushbeat went to Penguin and Shoalwater Bay Islands with Metropolitan Marine Park Manager Greg Pobar, over to Rottnest Island, then to Perth Zoo for numbats and western swamp tortoises and to the Watermans labo-

ratory to look at crayfish. "Obviously, Western Australia has a lot to offer the naturalist," said Gil.

"Bushbeat is shown at 4.30 pm on Mondays and will catch mostly young

"We're not yet sure exactly when the shows will be seen, but CALM will receive copies of the Western Australian segments to use for educational and interpretative purposes."



Bill Cuthbert and young visitor to Leeuwin-Naturaliste National Park. Photo by Les Cuthbert

#### Kangaroo squash is a hit with children

OH, HORROR! Mass carnage on the road.

Native fauna ruthlessly slaughtered by Mack trucks and Scud missiles!

Though easily sensationalised, Kangaroo Squash is actually a thoughtfully crafted, environmental education activity.

CALM's Interpretation and Community Education Section held the game as part of Heritage Week at Whiteman Park in the Swan Valley.

Initiated by the National Trust, Heritage Week is an by Lotte Lent

annual event designed to inspire interest in things both natural and cultural in Australia.

This year's theme was "Save the Bush" and with their usual flurry of creativity, CALM officers, assisted by CALM volunteer Craig Portlock, shared a game about wildlife protection with 18 visiting primary school classes.

Kangaroo Sauash gives children a chance to put themselves in someone else's paws.

When children act as native animals, the need for saving the bush is graphically demonstrated.

They hop, crawl, fly, slither or scamper across a mock roadway.

Normally, one or two in the class show a propensity for rowdiness and are instantly selected to be huge metal vehicles barrelling down the road.

Before long, many native "critters" are squashed (tagged) by these "vehicles" and lie dead or dying on the "road", visible signs of the damage humans can

Some of the "dead"

children afterwards encourages them to consider the ways we humans can protect native fauna. Here are some of the ideas generated by children at Heritage Week this year; speed limit signs, fauna tunnels, fauna crossing signs, speed humps, road reserves (bush corridors), relevant environmental legislation and proper management of "We have completed a

pilot project which demonstrated that adults with developmental difficulties want access to appropriate

age literature," Helen Delany, coordinator of Activ's taped book project, said.

"This can be done by providing books narrated at a range of slow speeds to enable people to follow the

"Many adults with developmental disability find commercial speeds too fast, either because their reading skills are not sufficient to keep pace with the tape, or because they find that a slower speed aids comprehension."

There is great value in

providing books like Shark Bay in audio format, according to Ms Delany.

"For people who have never previously experienced imaginative literature, or access to printed information, reading becomes a valued and enriching leisure activity.

"It enhances self-esteem, confidence and knowledge," she said.

The taped version of Shark Bay will be available for use through Activ Foundation's Narkaling Library and will not be for resale.

#### **Mechanic retires**

by Ron Newman

MECHANIC-in-Charge at CALM's Ludlow workshop, Bob Szymanski, retired on June 24.

Bob began working with the Forests Department, Margaret River in November, 1950, transferring a few weeks later to Ludlow.

He learnt his trade as a mechanic in a German labour camp after the invasion of his native Po-

During the mid-70s to

mid-80s when the Sunkland Pine Plantation Program was at its peak, Bob contributed significantly to the modification of the planting machinery needed for the project.

Married in 1954, Bob and his wife Teresa have two sons and two daugh-

Bob gave dedicated service to both the Forests Department and CALM and will be missed by his colleagues and the many friends he made during more than 40 years of meritorious service.

are resurrected as vehicles and the game is played over with macabre relish. A discussion with the

reserved lands. workers laid off, but some

# **CALM** respite

MORE than half of the had left the town looking workers retrenched with the closure of Bunnings' Dwellingup sawmill gained a temporary respite through contract work with CALM.

The Department brought forward its capital works program, making \$50 000 available for work on recreation facilities during June. Dwellingup District Manager, Keith Low, said letters offering employment were sent to each of the 23

for work before the letters

"Twelve of the ex-Bunnings workers took up the job offer straight away and another three contacted us," Keith said.

"They were all given an induction and safety training course before beginning four weeks' work at Lane Poole Reserve."

Maintenance work identified under Dwellingup's routine monthly inspection of sites was carried out,

including repairs to picnic tables, barbecues and fencing around rehabilitation areas. The contracted staff also worked on building individual camp bays at Baden Powell water spout to upgrade the area.

Ranging in age from about 22 to 62, they worked with Dwellingup staff on the projects.

"It was the first time some of the sawmillers had worked outside and it was a change they all seemed to enjoy.

"Most of the men had worked for Bunnings for 10 years or more."

Executive Director Dr Syd Shea said the Department was pleased to have been able to offer employment to the displaced workers, if only on a temporary basis. Dr Shea said CALM and the local community had also benefited as the completed work had enhanced facilities at Lane Poole earlier than would have been possible other-

## Arbor Day round-u





## Tegan's surprise

FIVE-year-old Tegan Sloan from Barrambie Station near Meekatharra received a surprise recently, courtesy of CALM, Skywest Airlines and Westcoast Helicopters.

Tegan is a pre-primary school pupil from the Meekatharra School of the Air, and the winner in her age group of the 1991 *LANDSCOPE*-6WF Arbor Day Poster Competition.

The competition - its theme *What Trees Mean To Me* - attracted 6745 entries from 153 schools by Tanyia Maxted

around Western Australia, and the winners were announced by WA Minister for the Environment Bob Pearce on 6WF.

Skywest, in conjunction with Westcoast Helicopters, flew CALM communications officer Tanyia Maxted from Perth to remote Meekatharra to present Tegan with her prize - a set of LANDSCOPE conservation magazines produced by CALM - and

Poster prize-winner Tegan Sloan. Photo by Tanyia Maxted

a special WA eucalypt for her to plant at home.

It was literally a 'flying visit' as the aeroplane was only on the ground at Meekatharra Airport long enough to be refuelled and have small amounts of baggage loaded and unloaded.

It was only the second time this year that Tegan had travelled to Meekatharra from the family station 140 kms south-west of the town.

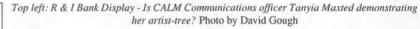
As well as Tegan's prize, a set of conservation pub-

lications was also presented to her schoolteacher, Rochelle Krieg, for the Meekatharra School of the Air's library. The school has 70 pupils spread within a 400 km radius of Meekatharra.

Tegan was one of eight primary schoolchildren to win prizes in the competition. Three classes were also presented with prizes for outstanding works of art.

CALM officers visited schools in Perth and in the regions to present prizes to other category winners.

Entries for the Arbor Day Poster Competition were received from as far away as the Cocos Islands and Alice Springs. Winning works of art will be printed in the spring edition of *LANDSCOPE*.



Top right: One of 370 schoolchildren who attended the tree celebration at Matilda Bay, Crawley. Photo by David Gough

Below: Governor of Rotary District 946 Lindsay Archer. Photo by David Gough

Bottom: The man who coordinated the celebration - Rick Sneeuwjagt, Acting Scientific Advisor to the Director of Forests. Photo by David Gough







#### **Pickering**

ABOUT 100 children, planting, and on to the major teachers and parents from Pickering Brook Primary School turned up to help in rehabilitating an old gravel pit in Canning Road.

Warm and sunny, the day was ideal for the occasion. Activities started with folk-dancing, making damper and a barbecue at the school - then off to

kering Brook Sports

Club for a spot of tree-

part of the program at the gravel pit.

CALM supplied about 2 500 seedlings and everyone took to the planting with heaps of enthusiasm.

Tree planting over, the tired but happy children returned to school.

As an important part of the program, the children were asked to write essays on the day and its significance to the environment.



## Walpole ...

ARBOR Day celebrations held by the Walpole Primary School in conjunction with CALM have once more been a resounding

Morning information and activity sessions were followed by an afternoon tree-planting exercise.

#### Quality of life

Children from grades one to three discussed the role trees play in the quality of life for humans and animals alike.

This was followed by e release, at the town oval, helium-filled balloons to which were attached packets of native eucalypt

seeds, a set of instructions about planting the seeds and a questionnaire for completion and return to Walpole Primary School.

The older children learnt about dieback disease and its far-reaching implications for native plants.

The lesson was brought home to the children by having them play "Dieback Dodgers" in which they each took part as a plant, a vehicle or the disease itself.

The final exercise, treeplanting, was supervised by forest workers at the Walpole Country Club and a rehabilitation site just out

Top right: Schoolchildren from Shark Bay Primary helped to beautify the homestead at Peron National Park, on Arbor Day. Photo courtesy of Shark Bay Primary School

Bottom left: Two young boys amid the balloons. Photo by David Gough

Bottom right: Derelict buildings on Peron Station (Shark Bay), demolished to make way for a car park and trees. Photo courtesy of Shark Bay Primary School

#### An Arbor Day rhyme: Of seedlings, trees, karri honey and bees

'Twas the day of trees, Arbor Day and all through the land CALM planted little seedlings by machine and by hand the nurseries were full of seedlings for farms all the sites were ploughed and ready and the soil scientists armed the rains would continue to fall throughout June so the small armies of planters tramped out whistling a tune for they knew how important their toil it be and with each step planted a life-giving tree and so today on Arbor Day as we're sowing those seeds think ahead a few years - past watering and weeds and there you will see something wonderful: a tree! its flowers food for insects its boughs home for birds and bees the taste of sweet karri honey the musty smell of damp eucalypt leaves; take a walk through the forest

by Tanyia Maxted

and stand in awe of our trees.

## Peron planting

FIFTY schoolchildren and 20 parents celebrated Arbor Day at the proposed Peron National Park in Shark Bay.

The children planted 200 trees around the old station homestead, which will provide shelter for a planned carpark and information bay and shield the workshops from the public.

Afterwards there was a bush barbecue with billy tea and the children played bush games such as cow pat throwing.

Most of the people who attended had not visited Peron since CALM took over the management of the proposed park in October, so the event was a good chance to show the local community what had been achieved in the area since then.

About 30 years of rubbish had previously been accumulated around the homestead, and this had taken about 65 hours to clean up with a bulldozer.

A mobile ranger, Lindsay Brown, is currently stationed in the proposed

"It is a real honour to be the first ranger here, especially as we have been able to achieve so much in such a short time," he said.

Prior to Lindsay's arrival, Peron was stocked with 16 500 sheep. Derelict buildings near the homestead and many kilometres of fences have in the last two months been dismantled.

"With the removal of the stock and with the recent rains, the area's acacia shrublands are looking quite green and lush," said Lindsay. "I think that many of the locals were pleasantly surprised at the difference.

However, there is still a great deal of work to be done. About 1 000 sheep and 2 000 goats still remain in the park, and a big effort will be launched this summer to remove them.







Peter Limerick (rear) and Damien Walker prepare to lay waterpipes to car park development.

Photo by Russell Bone

## Working together

UPGRADING of the historic Chichester Range Camel Trail in the Pilbara is one of 11 projects being undertaken statewide by groups of local Aboriginal people.

The Camel Trail, located in the Millstream-Chichester National Park, was built in the 1870s for camel drivers to carry stores from the port of Cossack to inland stations and mining settlements.

Using the same trail, the camel trains returned to Cossack with the woolclip. The projects were initiated by CALM with funds provided by The Australian National Parks and

Wildlife Service and are a means by which the historic role played by Aborigines as custodians of the land is recognised.

They also provide meaningful employment in places where job opportunities are limited.

#### Research

Aboriginal people are also helping CALM with research and operational tasks in several of the State's national parks and nature reserves.

Research into turtle populations in the Kimberley, controlling water fern infestations at Millstream and developing management proposals for two large nature reserves in the Gibson and Great Victoria deserts are projects in which Aboriginal people are involved.

Other projects include

developing visitor facilities and providing information at the new Mt Augustus National Park, rehabilitating old gravel sites and planting trees in Wheatbelt nature reserves, documenting Aboriginal names of features and locations and Aboriginal use of plants and animals in the Carnarvon Ranges Nature Reserve in the remote North-Western Goldfields.

## Ningaloo signed

NINGALOO Marine Park has been divided into eight zones, in accordance with the management plan for the area released in November, 1989.

A relatively simple framework for zoning has been developed which includes General Use Zones, Recreation Zones and Sanctuary Zones.

The introduction of the zones provides for recreational pursuits consistent with the protection of natural resources. Essentially, they are "look but don't take" zones.

The eight zones encompass approximately 25 per cent of the total park shore-line which is some 260 km long.

To enable park visitors to comply with zoning regulations it has been necessary to design and build appropriate signage.

Most of the signs, made of routed timber and metal, were manufactured by Exmouth CALM staff at the Milyering workshop.

Earlier this year it was realised that limited staff resources would make it difficult for local CALM staff to erect beach signage within a reasonable period of time.

So Marine Park Manager Dr Sue Osborne invited Friends of Marmion Marine Park to participate in the sign deployment program.

Fortunately, the group was able to provide assistance in the forms of George Arnold, Mark Illingworth and Alan Barsden.

The volunteer group was accommodated at the Tantabiddi mobile ranger station throughout their 10day stay.

Under the supervision of Ranger-in-Charge Steve Strachan and Ranger Mike Newton, the volunteers assembled and placed 15 of the 19 signs erected along the entire length of the marine park.

This was achieved by innovative thinking and sustained physical effort over many long hours.

The schedule required them to take two vehicles to Coral Bay - one loaded with food and camping gear, the other with signs, posts, a generator, a 44-gallon water tank, a fridge, a wheelbarrow, drinking water, an assortment of tools, a cement mixer, and many bags of cement.

Two signs were erected at Maud South on the first day and the next day saw the team heading north for the Dugong Sanctuary Zone.

But a rough track caused the tip-trailer to overturn, strewing most of the blue metal and carefully packaged signs several metres along the way - not an auspicious start to the day.

Once the two signs at Dugong were in place, the team headed for Ningaloo Station and Cloates Sanctuary Zone where another sign was erected, making three for the day.

Among the incidents that occurred during the ensuing days were the closure of all tracks into Yardie Creek where overnight rain had reached 50 mm, and the disappearance of a site peg at Osprey Sanctuary Zone. The sign at Osprey was erected after the peg was located by District Manager Doug Myers using borrowed electronic survey equipment.

The project took nine days of solid work from 6.00 am to 6.00 pm.

The existence of a spirit of camaraderie between local CALM staff and the volunteers, contributed significantly to the effectiveness of the exercise.

This same spirit reached its high point at a "farewell and thank you" barbecue held at Mike and Lyn Newton's home. The volunteers' impressions of the nine-day exercise can be summed up in George Arnold's comment:

George Arnold's comment:

"It must be the quickest way to get fit, have a whale of a good time and meet many friendly people - we highly recommend it."

Exmouth staff found the exercise a rewarding one. Apart from achieving an important management goal, it provided an opportunity to compare notes and share ideas.

The staff were most impressed by the enthusiasm and good will displayed by the Friends of Marmion and are looking forward to meeting them again in Jawhen other projects was be undertaken.

# That dam relay again

GET your running shoes on ... this year's Big Brook Relay isn't that far away.

The relay, in, on and around the Big Brook Dam at Pemberton, will be held on Saturday, November 2.

Last year Mapping Maniacs won the event from Inventree Mob, Wreckreation & P & E and Farnarklers.

A field of twenty teams competed in the cross-cut sawing, running, canoeing, cycling and swimming relay. For the event, team members had to saw their way through a debarked log five times, then tag the next member who ran a seven-kilometre lap around the dam, tag the next member who completed a three-kilometre circuit, tag the cyclist who pedalled a 12-kilometre lap of the dam then tag the swimmer who swam a one-kilometre triangle course.

For further informatic contact Alan Sands (09) 364 0705.

## Rare tortoise success

AUSTRALIA's most endangered animal and one of the world's rarest species has received a further boost to its chances of long term survival.

For the third successive year western swamp tortoise eggs have been hatched successfully at the Perth Zoo, this year in record numbers.

In 1989, 11 eggs were hatched but only five of the young survived.

Last year, 11 hatched and survived and this year 16 eggs hatched and all the young are progressing well.

Announcing the success on behalf of the Western Swamp Tortoise Recovery Team, Dr Andrew Burbidge, CALM's Director of Research, said the growing number of hatchlings could bring the tortoise back from the brink of extinction.

The Recovery Team coordinates research and management of the tortoise, as well as the public education program in support of the tiny reptile.

The team is made up of representatives from CALM, Perth Zoo, the University of Western Australia and Curtin University of Technology.

"There were only 40 western swamp tortoises left in the world and no breeding success for eight years when the breakthrough came in 1989," Dr Burbidge said.

"The captive breeding program has been a tremendous cooperative effort between agencies.

"We are especially grateful to the many different groups which have funded the program, including the World Wide Fund for Nature, the Australian National Parks and Wildlife Service and local businesses."

Breeding success was achieved when Dr Gerald Kuchling, a Research Fellow at UWA, used ultrasound equipment on the tortoises to assess and monitor female fertility.

The western swamp Tortoise is still far from secure, however.

The hatchlings produced since 1989 may not reach sexual maturity for ten to 15 years.

Launching a ten year recovery program for the tortoise last November, the Duke of Edinburgh said saving the tortoise would act as a signal of encouragement to conservationists around the world of what could be done against great odds.



Western swamp tortoise. Photo by Gerald Kuchling

## Oh what a week - West Week

USING a replica of a national park information shelter, CALM staff's exhibit at the recent West Week Travel and Leisure Expo, took on mammoth proportions.

People entering the pavilion in Perth's Forrest Chase were at first taken aback by what appeared to resemble an architectural elephant in a shower recess.

At a second glance, however, they were enthralled by the structure and its theme of recreation and national parks, and enthusiastically inspected the display.

For the Expo it was originally intended to have a booth with attractive photographs and national park rangers handing out information leaflets and brochures.

But the display committee decided to go one better.

Northern Forest Region's new scaled-down "park shelter" was borrowed, bedecked with photos and visitor information and prepared for placement outside our by John Hunter

booth. But at setting up time, things were not so easy.

The Expo organisers nearly had a fit when they saw the erected park shelter. Sounds of "you can't put that in here ... it's too big ... move it outside ... I don't care who Syd is ... DOSHWA will have us for mincemeat .... definitely not!" drifted across the pavilion.

After a brief, intense bout of industrial debating, a compromise was reached. The front of the booth was dismantled to a heap of electric wires, lights and aluminium struts and in went the park shelter.

With hindsight, the trial of fitting the shelter was a blessing in disguise. The booth with its walls of feature photos and the authentic park shelter with its information panels and uniformed national park rangers provided a realistic atmosphere.

About 100 000 people visited the Expo, at times keeping the attendant rangers hard-pressed to deal with everyone's enquiries but both public and staff appeared to enjoy the experience.

National Park Rangers

Rod Annear, Brad Cockman, George Duxbury, Mike Osmond, Phil Bastion and Jason Puls are to be congratulated on a highly successful West Week.

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#### Correction

MRS Rachel Siewert has asked us to print this: "In the March-April CALM News, it was reported th Conservation Council coordinator Rachel Siewert said the Council believed CALM was responsible for most of the 37 fires that occurred in the south west and metropolitan areas following prescribed burning some weeks earlier. "The Editor accepts that what Mrs Siewert said in her media release of 4 Feburary was that the Conservation Council called on CALM for an explana-

tion over the forest fires ir

the lower south-west dur-

ing the previous week

because the Council be-

lieved CALM may have

been responsible for mos

of the fires."



Don Merton with juvenile female black robin. Photo by Rob Chappell

#### Scrub-bird revisited

ENDANGERED species expert Don Merton, from the New Zealand Department of Conservation, recently revisited a project he had first become involved with in Western Australia eight years ago-the noisy scrubbird translocation.

Don addressed a conservation workshop on the program in May for CALM management, staff and eople outside the Department involved in the species recovery.

Convened by Director of Research Andrew Burbidge and Two Peoples Bay Reserve Management Officer Alan Danks, the workshop looked at the current status of the scrub-bird, fire management for the species, its translocation, the use of volunteers and radio-tracking.

The operations coordinator for the NZ Department's Threatened Species Unit, Don Merton was seconded to WA for three months in 1983 to work on the program. This followed his now-famous work to save the Chatham Island black robin in NZ. When the recovery began there were only five individuals - today there are 130.

A former Australian National Parks and Wildlife Service conservator on Christmas Island in the Indian Ocean, Don now leads the recovery program for the kakapo in NZ - a giant flightless parrot of which there are only about 50 individuals left.

He described CALM's noisy scrub-bird recovery as one of the classic species rescues of our time, and congratulated the Department and all those involved.

"Although you have a good few hurdles yet to negotiate, the program is already a classic text-book example of how recovery can be achieved in a critically endangered bird," he by Tanyia Maxted

said.

"This is especially important since the noisy scrub-bird is not only of significance at the State level - its plight is of concern both nationally and internationally, and your management of it is being followed with interest by a global audience.

"The techniques you are refining and applying, and the successes being achieved are not only breaking new ground and facilitating recovery in a unique life-form, they are of crucial importance in inspiring and encouraging similar action elsewhere."

Don said that when he came across to work on the program in 1983, the first task was to devise means of catching and holding the birds before their translocation.

"They are the most secretive, cryptic birds and a real challenge," he said.

"Some biologists thought it was impossible, but we found ways to catch these birds and the program became a resound-

ing success."

During his visit, Don looked at the parent population at Two Peoples Bay and helped solve some technical problems CALM was having.

He said that in New Zealand, about 47 per cent of the endemic land-bird species had been lost since human colonisation about 1 000 years ago, and of 49 species now surviving, 27 (55 per cent) were threatened with extinction.

He said that in spite of his Department's best efforts, the number of threatened animal and plant forms in NZ continued to grow, with more than 170 animal taxa and 250 plant taxa believed to be threatened with extinction.

Don's Threatened Species Unit has a total of six people working in it.

As the public service there pulls in its belt, due to the poor financial times, Don's Department has had its staff reduced from 1900 to 1300 and its budget reduced from \$NZ120 million to \$NZ90 million.

The Department also has to generate 20 per cent of its own revenue.

#### nite L. Otava Hanna

THE ability of granite outcrop plant communities to regenerate after fire is the subject of a study now in its fourth year.

The location of the study is on Chiddarcooping Nature Reserve where a lightning strike in 1987 caused extensive bushfires.

The study to date has revealed that plants respond to fire in a variety of ways.

Seeders are killed, and regenerate only by germination of seed, whereas resprouters can regenerate by seed or by shoots sprouting from underground rootstocks or trunks.

The Chiddarcooping study has established that an unusually high percentage of seeders are found in the granite communities. Of the 79 perennial plant species investigated, 77 per cent were seeders.

This compares with 34 per cent seeders observed by Professor John Pate of the University of Western Australia in sandplain near Jurien.

South coast heathlands

by Steve Hopper

On the rocks

on Two Peoples Bay Nature Reserve may have as low as 8 per cent seeders (research by CALM's Angas Hopkins).

The high proportion of seeders at Chiddarcooping suggests that cautious fire management is needed for Wheatbelt granite outcrop communities.

Sufficient time needs to elapse between fires for an adequate seed bank to be developed in all seeder species.

Another interesting aspect of the study was the recording of 29 species not previously known on Chiddarcooping Nature Reserve.

These 29 represent a 22 per cent increase in the number of granite community plants recorded previously by consultant botanist Arthur Weston in a 1983-85 survey of the Reserve.

Of the 29 new records, 15 were annuals, five were perennial legumes, five were other perennial shrubs, and three were short-lived fire opportunists. One of the latter, *Gyrostemon subnudus*, a fleshy and widely but intricately branched shrublet, dominated the early post-fire regeneration. It was dying out in 1990, three years after the fire. A new species of blue china orchid

peared thereafter.

The study has confirmed the view that granite communities are rich and complex, with rapid changes of species over short distances.

flowered profusely in late

Spring 1988, but disap-

It is also addressing the regeneration of three mallee eucalypts confined to granite outcrops, E. cae-

sia, E. crucis and E. petraea.

A run of three good seasons after the fire has meant that some seedlings of all three species still survive.

It will be interesting to follow their survivorship over the years to come.

Observations after fires on other rocks indicate that it will take several, possibly many decades for the Chiddarcooping communities to attain their pre-fire condition. Long-term monitoring of such regeneration is essential to understand and manage effectively, the episodic regeneration of semi-arid mallee vegetation.

# 'Scoping very well

AN INCREASE of 1500 subscribers over the next 12 months is the target for a recently launched subscription drive for *LANDSCOPE* magazine.

The campaign includes direct mail, assorted targeted promotional activities and spot advertising in *The West Australian*''s Earth 2000 supplement.

Acting Director of Corporate Relations Division, Ron Kawalilak, said that over the past year, the Division had been able to reduce production costs and to increase revenues to the point where the magazine was virtually self-sufficient.

"A wider range of CALM staff than ever before is now contributing in some way to the success of the magazine and to ensuring that it is an integral part of the Department's communications program," he said.

"Many people in CALM have worked hard to improve the quality of LANDSCOPE and, as a result, the subscriber base has continued to grow steadily over the past 12 months.

"This growth is an extraordinary achievement at a time when the recession has forced many magazines out of business because people are having, of necessity, to become more selective in how they spend their discretionary dollars.

"With fixed production and marketing costs being met by the present subscriber-base, and with the magazine itself improving, it is an excellent time to push for a substantial increase in subscribers.

"A 20 percent increase is achievable," he said.

Current subscription and over-the-counter sales for LANDSCOPE are more than 7500 per issue.

"People tell us that they buy the magazine because it is WA's premier conservation publication and because it satisfies a need in the community.

"But we needn't stop with just satisfying our customers - our ultimate goal should be to delight them and to enlist their contributions to the work we do," Ron said.

# First time fees for reserves

CAMPING fees charged in national parks will be extended to CALM administered reserves.

The first user-pays system will be introduced at Lane Poole Reserve, Dwellingup. CALM's Dwellingup District Manager Keith Low said that about a quarter of a million people visit Lane Poole Reserve each year and the number is increasing.

"Most of the visitors have a healthy respect for the Reserve's environment and behave responsibly," Keith said.

"Nevertheless, with such a large number of people using the Reserve, and the odd occurrence of vandalism, there's increasing wear and tear on facili-

"This means that money has to be found for necessary repairs and some upgrading to be carried out. "Experience has also

taught us that when we have to pay for something, we tend to feel a sense of ownership, no matter how temporary, and are therefore more inclined to take care of it.

"We're now hoping this is how all visitors will feel about Lane Poole Reserve."

Fees from September 1, 1991 will be: per site/per night 1-2 persons - \$5.00 (each additional adult -\$3.00; each additional school age child under 16 years of age \$1.00).

# PUBLICATION

Left to right: CALM General Manager Roger Underwood, DOLA Chief Executive Allan Skinner, and Frank Lilley, Manager of DOLA's Cartographic Services. Photo courtesy of DOLA

#### Maps to point the way

THE official launch of the StreetSmart Blackwood Valley Touring Map took place on Tuesday 11 June at the offices of the Department of Land Administration (DOLA), in Perth.

The publication of this new map heralds the formalisation of DOLA and CALM's working relationship and reflects a combined commitment to conservation awareness.

Its production also represents close collaboration between Government and community-based tourist groups.

DOLA's Chief Executive, Allan Skinner, praised the level of professionalby David Gough

ism and commitment by both departments in formalising a solid working relationship.

"Although DOLA and CALM have in the past acted as sister agencies pursuing similar interests, this is the first time the association has been formally recognised by management," he said.

"It is envisaged that DOLA and CALM will maintain this mood of professional cooperation, by continuing to work on similar projects."

CALM's General Man-

unique in that it highlights existing or proposed conservation areas, forest estates and disease risk areas.

Prior to this publication, touring maps had only

ager, Roger Underwood,

stressed the fact that the

Blackwood Valley map is

indicated official national parkland. "This is timely since CALM is working hard to promote a dieback public

awareness program with

Rotary clubs in the South West," he said. Work is already under way to co-produce another touring map, this time of

way to co-produce another touring map, this time of Man-the Pilbara region.

## The vital remains

CALM has launched a new project to help conserve isolated patches of bush on private land.

Remaining native vegetation varies from 20 per cent to as little as seven per cent of the original cover in some shires.

In a bid to meet the demand for information on how to look after privately owned bush remnants, CALM is to publish management guidelines for landowners.

Project coordinator Penny Hussey said it was vital to manage these remnants for successful land conservation.

The project will be carried out over 12 months, beginning with extensive consultation with rural people. The Australian National Parks and Wildlife Service has provided \$49 000 funding for the project under its "Save the Bush" scheme.

"We expect the main management issues will include fire prevention, controlling feral animals and weeds and regenerating and encouraging the return of native animals," Ms Hussey said.

"These topics were raised at a management of wildlife on farms seminar at Narrogin in March, organised by Greening Australia with help from CALM. The great interest in this sort of conservation was reflected in the excellent turnout of farmers."

Other land owners will want to know if they can manage their remnant vegetation for commercial purposes, such as honey and timber, without destroying its conservation val-

"A lot of land owners have already taken steps to protect natural areas by fencing them off from stock, under a subsidised scheme run by the Departments of Agriculture and CALM.

"Our aim is to give people the information they need to look after their piece of bush

"Often these remnants

are left in areas with few nature reserves, making it doubly important to save them."

Penny Hussey has been seconded to the project from her position as Executive Officer to the Roadside Conservation Committee.

"It's essential that what is produced is really valuable to the rural community," Ms Hussey said.

"I would like to hear from anyone who has tried different management techniques and been successful, or perhaps just as importantly, if a certain technique hasn't worked.

"Any ideas or suggestions on the sort of guidelines people need - and the format that would be most useful - would be welcome."

Penny can be contacted on (09) 367 0438.



Barney Quicke.

## disappears

Puck and her calf.

THE dolphin calf that was recently born at Monkey Mia disappeared in late

Its mother, Puck, is the daughter of Crooked Fin, who is another beach regular, so the calf was a third generation beach visitor.

The male calf, which was wrongly sexed at first because of its rolls of baby Monkey Mia with its mother within hours of its birth. This is unusual for such a young calf. The youngster was Puck's third calf since 1987, none of which have survived. It is thought that

Wild dolphin calves have a high mortality rate,

the calf died from natural

predators.

A large tiger shark was spotted 300 metres from the beach for a few days after the birth.

Dolphins can be quit aggressive and will attack large sharks in order to protect their young, evident by scarring on some animals.

#### Quicke off the mark

WRITING, more painting and a spot of forestry in Fiji are among the pursuits well-known Harvey Forester, Henry Edward (Barney) Quicke, has planned for his retirement years.

So well respected is Barney that three farewell functions were held to mark his recent retirement.

The last function, held at the Rose Hotel, Bunby Don Spriggins

bury, was no less well-attended than the first two, and it was here that Barney heard himself eulogised by colleagues John Clarke, Bryan Doust, Bob Chandler and Bunbury Regional Manager Don Spriggins.

"Original lateral thinker", "affable nonconformist" and "latterday renaissance man" were a few of the phrases used to describe this man of apparently insatiable curiosity about nearly everything, but especially the natural environment.

Barney was presented with, not your average common or garden coffee table, but a "bush time table" on which were inscribed historic events in his personal tree of life.



Photo by Don Spriggins

## Foraging feat

TRIALS at Two Peoples Bay with a new heavy duty forage harvester has proved highly successful.

For many years CALM staff at Two Peoples Bay maintained fuel-reduced firebreaks by using a slasher.

The slasher was effective but it was unable to pick up the slashed

by Terry Passmore

The forage harvester not only cuts the scrub extremely well, but vacuums the cut pieces and blasts them out of the chute.

Two trials were run at Two Peoples Bay, one blasting the chopped material into the air and allowing the wind to distribute it over a large area. This was successful, with little material falling on the cleared fire break.

In the second trial a specially constructed trailer was pulled behind the harvester and all the material was caught for use in rehabilitating areas elsewhere in the nature

#### Discounts for emplo

ALL CALM employees released are entitled to 20% off the recommended retail price of our full range of publications.

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Wildflower Country, on offer. There's also a chance to purchase LANDSCOPE binders for only \$7.16 each.

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Flora of the Perth Region Parts 1 & 2 - RRP \$45.00	V 1/1	\$36.00	9. 1
Rugged Mountains, Jewelled Sea - RRP \$6.95		\$5.56	
Heritage Trails in WA - RRP \$15.95		\$12.76	
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Beating About the Bush - RRP \$9.95		\$7.96	
A Guide to the Bibbulmun Track - RRP \$14.95		\$11.96	
Voices of the Bush - RRP \$8.95	1	\$7.16	
Range to Reef - RRP \$5.95		\$4.76	
Shark Bay - RRP \$5.95		\$4.76	
Coral Reefs - RRP \$3.00		\$2.40	
LANDSCOPE Binders - RRP \$8.95		\$7.16	
		TOTAL	

#### Wildlife threats

BUNBURY wildlife officers are concerned that a number of rare chuditch have been caught in rabbit traps in the Collie area.

The jarrah forest around Collie is one of the last remaining strongholds of these carnivorous marsupials, which have disappeared from much of their previous habitat.

The chuditch are caught in the traps because they frequently occupy rabbit burrows and also prey on young rabbits.

Two chuditch from near Collie recently lost their legs in steel rabbit traps.

One is now at Perth Zoo, where it is part of a captive breeding program, while in the Collie area.

The use of rabbit traps is regulated and people wishing to use rabbit traps should consult the owner or occupier of the land prior to using them.

CALM is asking people not to use rabbit traps in areas near the jarrah forest and to contact the Agricultural Protection Board for advice on other methods of controlling rabbits.

#### Swans too

In the metropolitan area, swans have caused a traffic hazard near a water drainage sump in Welshpool, near the corner of Pilbara and Orrong Roads.

Wildlife officers also advised motorists to drive metropolitan wetlands, swerve to avoid them."

particularly Perry Lakes, Shenton Park Lake, Mabel Talbot Park and Lake Mon-

"Swans on roads are likely to become a significant problem in the next few weeks," said CALM's Chief Wildlife Officer David Mell.

"Breeding swans in the metropolitan area tend to walk between wetlands when their cygnets hatch, because of territorial interactions between pairs on small wetlands and the need to find food and other resources for growing cyg-

"Apart from the birds' welfare, this could lead to traffic accidents if people the other is being cared for carefully around other are caught off-guard and



Wounded chuditch. Photo by Sean Hazelden