

CALM News

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KEITH MORRIS investigates the work of the cochineal insect on West Lewis Island.

NW prickly pear plan on target

A BIOLOGICAL control programme in the Pilbara shows promising signs of eradicating the introduced

prickly pear.

In November 1986, CALM Research Scientist Keith Morris, with the help of the Agriculture Protection Board, used a helicopter to drop pieces of prickly pear plants invested with Cactoblatis cactorum, or the cochineal, on two islands in the Dampier Archipelago.

The insect is the caterpillar of a moth that feeds on

the prickly pear. Keith said: "The insect seems almost to be sucking it dry so that the plant goes from lush, vigorous green, to yellow, to brown in various stages."

Just over a year after the

Keith said the eradication efforts look successful, with prickly pear plants on both East and West Lewis Islands in different stages

These two islands are the only ones which seem to be infested with prickly pear, apart from Jarman Island which is the target for a future eradication effort.

West Lewis is thought to have been a former pastor-al site and the declared weed was probably introduced by its owners.

Prickly pear was first identified in Australia in Queensland, where it spread quickly in the tropical climate.

In the 1920s and 30s, it threatened to take over and destroy many pastoral lands, and the cochineal, an insect from South America, was brought in to control it, according to CALM Entomologist Ian Abbott.

Keith said the natural flora of the islands is under threat from prickly pear, because the weed replaces all other vegetation.

"The islands are unique because they are remnants of what the mainland used

to look like, with the same geology and relatively undisturbed flora and fauna."

Keith is continually monitoring the effects of the cochineal, and keeping an eye out for infestation of other islands as the plant spreads easily.

Complete eradication of the prickly pear from the islands may require chemical treatment toward the end of the project, to remove all traces of the plant, which can reproduce from a single pad.

Keith said, "In three to four years, hopefully, the problem will be wiped out on West and East Lewis Islands."

Timber production ...

TAFE OFFERS TRAINING IN EW COURSE

By JOHN CLARKE

PEOPLE seeking a career in timber production have another avenue for training with the recent launch in W.A. of the Certificate in Timber Technology course.

The course, available through selected TAFE colleges throughout Australia, provides training in supervising and management careers in the timber processing industry.

The Certificate is a nationally developed course, a result of a cooperative ef-fort between State TAFE authorities and the National Timber Industry Train-

ing Committee.
Topics covered by the

- course include: · An introduction to the timber industry in Aus-
 - Timber harvesting
 - Wood properties
 Timber seasoning
- and preservation
- Timber grading and quality control
- Sawlog conversion
 Particleboard
- manufacture
- · Pulp and paper
- manufacture • Timber engineered

products In WA, the course is being conducted one night a

week at TAFE colleges at Thornlie and Manjimup. Lecturers are selected from nominated experienced local personnel.

CALM's Timber Production Branch Manager, John Sclater, will lecture at Thornlie in Timber Harvesting.

Graham Siemon and Gary Brennan will lecture in Wood Properties.

Other lecturers include Ed Sprengel (former Managing Director of Millars WA Pty Ltd) and Norm Hoath (recently retired logging superintendent from Bunning Bros).

CALM Executive Direc-tor Syd Shea and WACAP Managing Director John Oldham joined the Chairman of the National Timber Industry Training Committee, Frank O'Shea, in commencing the course to the timber industry at large.

A number of CALM personnel from areas as far away as Wanneroo and Albany have expressed interest in the course.

Depending on the in-terest shown during TAFE enrolment week in February, the course will be conducted in future at Bunbury.

A course at Bunbury would be particularly convenient for CALM personnel involved in the Wood Utilisation Research Centre at Harvey.

Sheoak species found

A NEW species of Sheoak (Allocasuarina sp) has been collected from a 40,000 ha nature reserve near Lake King in the Katanning District.

The Lake King Nature Reserve was only gazetted as a Nature Reserve in April of 1986.

Reserves Officer Mal Graham was carrying out an inspection of the newly acquired reserve when he collected the specimen, which was unfamiliar to

him.
This specimen was subsequently referred to Dr Eleanor Bennett of the Kings Park Botanical Gardens who considered that the plant was a previously undescribed species.

Following further collections during the 1987 flowering season, Dr Bennett confirmed that this is a new species.

A description and proposed specific name are shortly to be published in Nuytsia.

This latest discovery will make it the second new species which has been discovered by Katanning District staff within three years.

Guidebook

THE hottest selling CALM Publication, the Bibbulmun Track Guidebook, sold out long ago, and a new guidebook to the realigned and lengthened Bibbulmun Track will be on the shelves in July.

As an interim measure, Mapping Branch have produced three maps outlining the original track, which are available at SOHQ Front Counter, at the cost of \$1 each.



of captive-bred chuditch in the Lane Poole Reserve marks the first step in re-establishing the species in areas from

which it has vanished. Also known as the western native cat, chuditch used to be found throughout WA south of the Fitzroy River, but are now mostly restricted to the jarrah forest.

Even within the forest, many areas of apparently suitable habitat, such as the release site, totally lack chuditch.

Thanks to funds provided by Alcoa, all of the released animals have been By Todd Soderquist

fitted with radio collars, allowing intensive monitoring of movements, den selection, and factors contributing to mortality.

The first few weeks after a release can be especially challenging not only for the animals but also the researcher: keeping track of numerous chuditch as they wander about in search of the Perfect Home Range can be frustrating.

Fortunately, the Dwellingup aerial fire spotting circuit passes directly over the release site, enabling pilots John Woodward, Hal Levison, and George Murphy to provide general radio-telemetry estimates of where "lost" animals are located.

Scats collected near den sites suggest that the captive-reared animals have adjusted quickly to their new situation, and are dining on a typical array of insects as well as occasional mardos and bandicoots.

The main threat to their continued well-being appears to be human: two animals, found dead along the main track running through the area, were shot within their first few days of freedom.



gives last minute directions to the chuditch MELODY SERENA before it is released.

Homo sapiens pride themself in being the only sentient creatures on earth. Some say that this capacity for feeling and selfperception is the main feature distinguishing us from other living

We are also proud of our powers of reason and of our science Paradoxically, however, our senses of feeling (emotions) and reason tend to mix together at times quite illogically.

Take our conservation ethics, for example. Most of us agree that no living thing should become extinct on our account; all of us believe that it is okay to eat vegetables, and most that it is okay to eat animals — after all that has been nature's way.

The usual notion is that we take only what we need so that the species is conserved, and that we should farm the species if we

need more than nature can provide.

Generally people feel that it is right to farm and eat sheep and cattle, but a few feel that it is wrong to farm and eat native

Somehow indigenous species seem to pose different ethical ques tions than do introduced species. However, it is interesting to note that a Hindu would probably prefer to eat kangaroo than cow. Such differing views are based on feelings and cultural beliefs rather than reason.

Then there is the matter of differing views towards native birds mammals and reptiles on the one hand, and fishes and invertebrates on the other.

Is there any basis for our attitude that the former are sacrosanct while the latter can be taken on barbed hooks or squashed under

While trawling is acceptable, can you imagine the outcry if some one pulled a big net behind a tractor through the forest to catch numbats (while discarding the bodies of unwanted birds and rep-tiles), popping them briefly into boiling water, and packing them

off to gourmet markets overseas? This is absurd, of course. I merely want to make the point that we have multiple standards in our attitudes to wildlife. Reason is only one of the things which determines our attitudes.

If all of our actions in respect to management and conserva-tion of wildlife were determined on matter-of-fact scientific principles, then sustainable yield and perpetual maintenance of selected populations and communities would be dominating features off our policies, and all kinds of living creatures would be given the

In recent years, however, our society has adopted attitudes towards the rights of living individual creatures and the wrongs of causing pain, and discriminate greatly between diverse kinds of animals. The truth is that our wildlife and conservation poli-cies are not at all consistent in their logic.

Those of us responsible for making and administering wildlife and environmental management policies must struggle with many conflicts between the science of our task and public perception of what is right and what is wrong.

And because public perceptions in this area are so variable, and constantly changing, it is sometimes hard to find firm ground to

In these circumstances there is no room for dogma. The daily modus operandi must be to stand by the scientific principles we know as best we can, but be tolerant towards those who use differ-

Forester, Nannup; Dave

Bottrill, Forester (Admin)

to District Forester (Ad-

min), Bunbury; Peter

Keppell, District Forester,

Harvey to Senior Forester

(Softwood Logging), Bun-

bury; Allan Thomson,

Forest Ranger, to Research

Scientist, Harvey. Tony Brandis, District

Forester (Training) at Har-

vey, is now Assistant

Manager (Training and De-

Resources Branch; Andrew

CALM following promo-

tion to a similar position

with Fisheries Department.

Transfers

Allan Shields, District: Wildlife Officer, Geraldton-

Greenhalgh, Officer, Bun-

bury to Como (Mapping);

Keith Mingham, Officer,

Manjimup to Como (Map-

ping); Barry Hooper,

Forest Ranger, Manjimup

to Jarrahdale; Kelly Cooke, Assistant District

Forest Officer, Albany to

Busselton; Steve Dalton,

Forest Ranger, Kirup to

Bunbury; Bob Rule, Forest

Ranger, Harvey to Man-jimup; Paul Davies,

Officer, Como to Man-

jimup; Jeff Bennett, Forest

Ranger, Kirup to Harvey;

Glyn Yates, Forest Ranger,

Albany to Collie; Greg Broomhall, Forester, Jar-

rahdale to Albany; Bob Coughran, District Wildlife

Officer, Wongan Hills to

velopment),

Branch,

Human

Information

Como, has left

Karratha; Carol

BARRY WILSON - Director of Nature Conservation

Join Department

Lloyd have completed their

bachelor of Science (Fore-

stry) degree courses from

the ANU and have begun

work as Assistant District

Forest Officers at Dwellin-

gup and Harvey respec-

Last year's graduates from the Field Officer Cadetship Course (CALM

Certificate) and now Forest

Rangers are Sean Hazelden

Willmott, Mundaring;

Peter Bamess, Kirup; Bri-

an Inglis, Dwellingup; Nevil Wittber, Harvey;

Jeff Boulton, Pemberton;

Wayne Burton, Albany; Geoff Rolland, Kalgoorlie;

Ian Freeman, Dwellingup and Denis McDonald,

Appointments

David Algar, Research Scientist, Woodvale; Bob

Fyfe, District Inspector,

Bunbury; Cecil Scott,

Computer Modeller (Fore-

stry), Como; and Des

Plumb, Reserves Manage-

ment Assistant, Katanning.

Mapping Branch, Como,

replacing Greg Rogers who

has gone to the Mines

Promotions

Harvey gained promotion

to District Forester, Dwel-

Murray Love, Forester,

Department.

aul Davies joined the

New CALM staff are:

Narrogin.

Wanneroo; Glenn

tively.

Carol Dymond and John

THIS is the time of Watch out for the year when we should take adequate precautions to protect our skin when out in the kin cancers Although a tan appears to afford some protection

Squamous Cell Carcinomas (SCC) form in cells which have partly developed after being formed in the basal layer of the skin and are in the process of moving towards the sur-The various types of skin face. SCC are usually successfully treated especially if detected early.

BCC and SCC are evenly distributed between hands and forearms and head and neck.

Malignant Melanomas often originate from a mole and are particularly dangerous because they tend to grow quickly. Early detection of any form of cancer greatly increases the chances of successful treatment. For skin cancers it has been estimated that the success rate for treatment could be as high as 95% with early detection. There is still a tendency for people to delay in seeking medical advice for such warning symptoms as any change in a mole or birthmarks, or a sore that does not heal within about three

Areas of skin not protected by clothing should be covered with a properly selected and correctly applied sunscreen product.

Sunscreen products also vary in the kind of ultraviolet radiation which they absorb. Most absorb only UVB because they are designed to permit tanning as well as to protect from

However, the sunscreens which contain broad spectrum absorbers offer greater protection and should always be used by people whose skin is particularly sensitive to light.

Oil such as baby oil and coconut oil, which do not contain any sunscreen compounds are very harmful because they do not give protection and in addition they produce a frying effect on the skin.

The choice of a sunscreen product depends on the skin type of the user and the conditions in which it is to be used.

Enjoy your leisure in the sun and Remember the higher the protection factor the greater the protection (eg SPF 15+ is the highest). TOM WOOD.

CONCOM SEMINA By CHRIS HAYNES **THE Council of Nature Conservation Ministers** IN W.A. Participants were middle tively a travelling one, with

met in Western Australia recently for a seminar on national parks.

and senior managers from all States and Territories and Malaysia, Papua New Guinea, the Solomon Islands and New Zealand.

against the risk of develop-

ing malignant melanoma,

acquiring the suntan may

increase the risk of de-

veloping other forms of

skin cancers, namely basal

cell carcinomas and squa-

cancers are classified ac-

cording to the cells from

which they originate: Basal Cell Carcinomas

(BCC) are the commonest

form of skin cancers. They

grow comparatively slowly

and rarely spread to other

parts of the body.

mous cell carcinomas.

CALM was represented by Kelly Gillen, Peter Henderson and Ron Waterhouse.

the idea of sharing information about what CALM did on a number themes.

The seminar travelled from Perth up to Cervantes, back to Mandurah, through Dwellingup to the Wheatbelt and down to the South Coast, back through

The seminar was effect the karri and southern jar-Effort appreciated

THIS letter is in appreciation of the efforts of your staff involved in the third seminar on national parks and wildlife management.

I was pleased to be a member of the seminar and personally found much value in comparing the structure and administration of CALM with our more recently formed

I was also very impressed with WA and was surprised and pleased to see the fine karri forests of the south west.

Although different in structure and composition, they reminded me of the dense lowland podocarp forest, now remnant in my region.

I would like to thank Helen Fordham and Chris Haynes, in particular, for their major roles in the seminar. Helen was a lively and competent chaperone on tour. The CALM staff we had in party were good company and very helpful as we toured the CALM estate.

The CALM staff we met on the circuit were also very impressive in their professionalism, honesty and helpfulness. Thanks to them, please.

I am quite sure that our Department of Conservation would be pleased to host any of your staff and I would certainly welcome reciprocal visits to this territory of

As an ex-forester with the previous New Zealand Forest Service, I was interested in your retention of wood production in CALM.

The Government here deliberately separated "production" from "protection" because they could not accept production within a conservation philosophy.

Thus we now have a Forestry Corporation (semi Government company) to manage production forests, and our department to manage conservation on other lands of the Crown.

Within our department, the old staff of New Zealand Forest Service, Department of Lands and Survey and the Wildlife Service are settling down as one family in Con-

I had the feeling that the State forests, National Parks, and Wildlife divisions within CALM were still clinging to their old identities. This was reinforced by the separate identification via

uniform shoulder flashes and by attitudes encountered in the field. Perhaps this will be transitory

Thank you again for the opportunity to visit your operations and for the helpfulness and companionship of your staff.

David Field Regional Manager Department of Conservation New Zealand

rah areas to Leeuwin-Naturaliste National Park and finally to Rottnest.

At the end of the fortnight, the participants were exhausted: they had led discussions, been involved in mini-seminars on themes, and finally produced a report that will be published when it has been edited.

The organisation of the seminar required a great

deal of background work by National Parks and Recreation Scientific Adviser Jim Sharp, who per-suaded the WA Tourism Commission to provide us with basic organisation, transport and accommo-

The assistance of the Commission was very

Helen Fordham was seconded to the project and

provided an excellent degree of organisation for all the participants.

We can take pride in the fact that CALM came through it all with flying colours, and as the following letter from David Field of New Zealand shows, the officers of the Department did a fine job explaining the role of CALM in ' national parks and wildi. conservation areas.

Good News

Dr S. Shea Executive Director Department of Conser-And Land Management

Dear Sir,

On Tuesday, the 9th February, 1988, an Ambulance was called to the Hillarys Marina, where a patient was being resuscitated by a Mr G. Pobar, of the Department of Conservation and Land Management.

Our officers were im-pressed with the skill and confidence exhibited by Mr Pobar, and were extremely appreciative of the assistance given.

Would you kindly ensure that Mr Pobar is thanked on behalf of the Ambulance Service, and in particular the Ambulance Officers concerned, namely Mr R. Taylor and Mr M. Selby.

Regretably the patient did not respond to the emergency treatment given, however, this case again confirms the excellent relationship and continuing cooperation between our services.

Yours faithfully,

IAN L. KAYE-EDDIE,

South Coast staff WITHIN the space of

a week staff from the South Coast Region were farewelling no less than three of their colleagues.

Steve Keelan, Ranger at I orndirrup National Park, Albany, resigned shortly after Christmas to return with his family to the east coast of Australia

This is an unfortunate loss to the department as Steve was a highly promising ranger who had acted as ranger in charge at Torndirrup for much of his

21/2 years there during the absence on sick leave of the former ranger in charge,

A small function for Steve was held at the Albany RHQ.

A week later a family barbeque was held one evening at Two Peoples Bay Nature Reserve to farewell Forest Ranger, Glyn Yates, and Assistant District Forestry Officer, Kelly Cooke, who have transferred to Collie and Busselton respectively.

In his short address, Regional Manager, John Watson described how Glyn had been the firs "new" officer in Alban, under CALM, initially on from Walpole to supervise CEP projects but subsequently attached to the

region for 2½ years.

During this time Glyn acted as Regional Administration Officer prior to the arrival of Peter Fishwick, and latterly was District Protection Officer for the Albany District. About 30 adults and 20

children attended the bar-beque to wish Glyn and Kelly good luck in their

Sorry Pam ...

PAM NEWLANDS, wife of Ranger Bob Newlands at Fitzgerald River National Park, has helped gather visitor information that will be used in developing the park's management plan.

In the December issue of CALM News, Pam's name was not included in the list of rangers and their wives who are helping conduct a visitor survey in the park.

Sorry Pam!

lingup; Roger Banks, Fore-ster, Kirup to District ea-lion research at Marmion

ABOUT 60 to 70 percent of the sea-lions found in our local waters are males.

Marmion Marine Park Manager Greg Pobar has been recording the presence of sea-lions in the metro area for the last 18 months.

He said he believes that the males are losers in battles for a herd, outcasts from colonies, the remnants of passion.

The males are specifically

fy the mature male by his white fur cap.

The other sea-lions, which are sub-adult, are difficult to sex unless they're rolled over onto their backs, an action sea-lions don't

There is also evidence of an 18-month breeding cycle, with the males leaving the region in April to October every 18 months.

When the sea-lions disappear,

recorded; researchers can identi-

that no new born pups have been sighted on metro beaches. Research is also being done on how the two species, humans and particularly appreciate. sea-lions, interact.

Because of the number of human visitors to local islands, there is fierce competition for space and food.

Our palates are very similar -

it is assumed they head north to

the Jurien area for breeding, a

theory strengthened by the fact

both enjoy wobbying shark as well as a variety of fish, although our methods of acquiring and consuming differ. The sea-lion is not without

other problems and strandings are of major concern. Thirty to 40 percent of strand-

ings are influenced by humans: fishing hooks, nets, and boating mishaps.

Twenty percent are of natural causes and the rest are unknown.



A sign helps solve the problem on Little Island where before there was no room to

FLOATING SIGN FOR THE TIMES

ON busy days in Marmion Marine Park last summer, management staff saw as many as 80 people with their attendant umbrellas and eskys crammed onto Little Island — along with 10 Australian Sea-lions and countless seabirds.

This conflict of recreation and wildlife conservation on an island not bigger than a tennis court has largely been overcome with the installation of a floating pyramid sign in the bay, restricting the public to brief visits only, for the purpose of observing wildlife.

The success of this aesthetically pleasing sign is no doubt a welcome relief to the weary sea-lions.

Development of this concept could see its utilisation in other areas of coastal management. -

Jarrah resource

By COLLEEN HENRY-HALL

CALM's new jarrah inventory, which will update estimates of the amount of jarrah in timber production areas, has begun with more than half of this year's photography target completed.

The project relies on space technology, computers and a sophisticated system of photography.

information athered will be used for strategic level planning of the hardwood industry.

Branch Inventory Manager, Hugh Campbell, said the project was developed by a team of people with a variety of skills.

Paul Biggs is the project officer responsible for dayto-day coordination and development of forest measurement techniques.

The computing side of the project was handled by Tim Westcott, Colin Pearce and Mike Green.

The camera systems which allow synchronised photography, were deve-loped by Bob Selkirk, and Gerard van Didden oversaw the design, construction, installation and modifications of the helicopter.

Three CALM officers,

in picture al photography missions, have been trained for the flying time. special project: Alf Lorkie-

an expected 116 hours of

Once the photography has been completed, Stephen Quain will estimate heights from photographs.

Greg Strelein will lead a team of field assessors from Inventory Branch to measure ground plots and derive the volumes of timber products there in the second sampling stage of the project



Alf Lorkiewicz (left) uses the computer to operate the cameras, while Derek Winters and John Webb observe data necessary for navigation.

Region takes action . .

CROCODILE AWARENESS **PROGRAMME**

By MIKE OSBORN

CROCODILES were a bonus for the Kimberley tourist trade, even before Mick Dundee came on the scene, but as the expanding resident populations of Kununurra, Broome and Derby accommodate the tourist boom in the region, so the likelihood of interaction between crocodiles and people increases.

Many recreational pursuits in the Kimberley are centred along waterways

Barramundi fishing, wimming, water ski-ing, sailing and camping attract locals and visitors alike.

Crocodile attack victims usually suffer horrific injuries and few survive the ordeal to warn others of the do's and don't's in crocodile areas.

CALM's Kimberley regional staff carried out a major crocodile awareness programme during 1987.

The initial priority was public safety and the prevention of crocodile attacks.

Crocodile warning signs were erected in problem areas, many talks were given to schools, service clubs and remote Aboriginal communities.

The publication branch assisted greatly and produced "take care in crocodile areas" brochures and drink coasters giving advice on crocodiles and displaying the crocodile warning sign and both are now widely distributed throughout the region.

The Kununurra agricultural show provided an opportunity for a crocodile display and with the assistance of the resource branch of the Northern Territory Conservation Commission, an interesting and informative display was set up, the star attractions being hatchling estuarine and Johnstone crocodiles giving the public the opportunity to view both species side by side and at a size acceptable to most.

Part of the display is now permanently fixed in the foyer of the regional

Picture courtesy Warren

Second on the list of priorities was to gain a higher level of public acceptance of crocodiles as an integral part of the Kimberley landscape.

Monitoring recreational areas with boats and spotlights after dark pinpointed the location of most saltwater crocodiles along the accessible areas of the Ord River, identified problem areas and enabled staff to confidently approach the questions relating to crocodiles in the Ord that frequently came from

members of the public. These surveys were extended to the Kununurra Diversion Dam and Dunham River.

The surveys are repeated at different times of the

The deaths of about 40 large freshwater crocodiles at the Lake Argyle Spillway spurred considerable interest within the com-

Kimberley staff captured and relocated 20 crocodiles from the area and conducted or arranged various tests in attempts to solve the riddle of the deaths.

It was good to see considerable concern and discussion throughout the community about the problem and it was the first sign that public attitudes towards crocodiles are changing.

This will be the subject of a future CALM News article.

The capturing and relocation of problem saltwater crocodiles created a lot of interest and showed that CALM is prepared to manage crocodile populations and act efficiently when problems occur.

Other commitments to the crocodile awareness programme are the selling of replica crocodile warning signs which have been well accepted and are now adorning the walls of various toilets, swimming pools and bars around Australia.

Sampling of both saltwater and freshwater crocodiles for Bacteria cultures is providing a bank of information on crocodile bacterium for the state health laboratories.

in all, programme has run well and continues to do so.

CALM's responsible approach to the issue has been well accepted and the results, although difficult to determine, are pleasing.

There have been a few negative responses to occasionally take the smiles from our faces and stop the back-patting for a while.

I recently flew to the re-Oombulgurri Aboriginal Community to erect warning signs and talk to the community on safety in crocodile areas.

The talk and videos shown were well accepted, but as my plane was leaving the rough bush runway, it flew over the Forest River to see a dozen or so of the intent listeners at my talk, standing waist deep in the tidal river just below his newly erected warning sign, fishing for Barramundi!!!!

The crocodile warning signs have been the target of souvenir hunters, some signs lasting only a matter of hours before being stolen.

There will always be an element in any community who refuse to heed the warnings, but at least the general public are now aware that living with crocodiles is easily achieved with a simple and com-

anger warning

wicz as camera operator,

and John Webb and Derek

The photography target

Winters as navigators.

WATCH out! This is a risk area!

cliffs are all dangerous areas, especially for the unwary visitor, and a new sign being used by CALM alerts people to possible dangers.

The symbol, an exclamation mark in the middle of a red triangle, is internationally recognised as indicating danger.

The sign, for use in the field by CALM, was developed by Interpretive Officer Gil Field.

"What we wanted was a way to inform people of

Gorges, caves and coastal possible hazards, without nied by text that tell the vicolluting the scenery with lots of signs," Gil said.

The sign is small, 400cm by 300cm, and installed in discreet places near the possible hazard.

Gil said: "Danger is an attraction, just like food or sex and a big sign could draw people to the dangerous area.

"This way, the sign is only obvious to people who have actually entered the area and are at risk.'

The symbol is accompa-

sitor what risk area he is in, why it is dangerous, and what he should do.

The signs are already in place on the south coast, indicating areas where king waves are known to strike, and the signs seem to be working well.

Gil said the signs are one component programme to educate people about certain areas.

Brochures, displays and personal communication with rangers also help spread the word.



Ranger Rick France with a Code of the Coast sign

UNIVERSITY **OFFERS OPPORTUNITY**

MURDOCH University is offering seven re-entry research scholarships this year to support and encourage women of high academic ability to undertake postgraduate research.

The \$1000 scholarships, one in each School of Study, will provide opportunities for women whose careers have been disrupted family responsibilities.

Successful candidates will be offered the chance to work in an honorary capacity with an academic for one semester or two semesters part-time.

In this time they will be encouraged to carry out independent research and/or assist an

academic's research.

Following this experience, women showing aptitude and interest will be encouraged to apply for a Murdoch Research Grant to study for a PhD or

For further information, contact Mr Ian Gell on 332 2367.

D'Entrecasteaux National Park was released at Pemberton District office recently, following an extensive public consultation exercise.

Preparation of the management plan involved public discussion and debate, and hundreds of submissions were considered.

The draft management plan was released in May 1986 for a four-month public comment period.

The plan was prepared by Planning Officer Sue Moore. It is the sixth to be com-

pleted by CALM and approved by the National Parks and Nature Conservation Authority since CALM was formed in 1985.

In releasing the plan, Warren MLA Dave Evans, said he was positive that the best position had been reached on the numerous issues that confronted the park's planners.

Mr Evans said, "One of the most vexing issues

which needed to be resolved in the planning process was the use of power boats on water bodies within the park."

The plan states that power boats will be permitted in the lower reaches of the Donnelly River and the Gardner River.

Also, the biggest inland water body in the D'Entrecasteaux National Park, Lake Jasper, will be zoned to allow some use by power boats.

monitoring programme also will be es tablished to check wildlife values in the lake.

Implementation of the management plan will begin as resources become available, with many new jobs beginning and rangers protection applying prescriptions immediately.

BENGER SWAMP PLAN RELEASED

THE final management plan for Benger Swamp Nature Reserve is now available.

Benger Swamp, 25km north-east of Bunbury, is one of only seven known breeding sites in south-west Australia for the Freckled Duck, a rare and endangered species.

In addition, it provides a seasonal wetland for a wide range of waterbirds, from diving ducks to

The plan, produced by CALM provides a basis for managing Benger Swamp for the next five years, when the plan will be The management plan recom-mends division of the Swamp, with one half being left to dry naturally rather than be drained.

This will allow the Department to determine whether natural drying increases waterbird usage or conversely leads to salt problems or excessive nutrients and algal

The plan also recommends continuing cultivation of the Swamp bed over summer months to control the spread of bulrushes

Cultivation and additional firebreaks will assist wildfire control.

A new Advisory Committee, nominated by CALM's minister, will be formed to advise on management of the Swamp.

The new Committee will be nominated after close consultation with the existing Advisory Committee, Shire of Harvey and local farmers.

Copies of the plan and summary of public submissions can be purchased from CALM at 50 Hayman Road, Como and Harvey District

Penguin Island KEEPING **VISITORS** INFORMED

By COLLEEN HENRY-HALL

THE Penguin Island Information Centre, staffed by volunteers and open on weekends, is a point of contact between CALM and the hundreds of visitors that come to the island each day.

The centre, which is in the hall next to the shop, is decorated with colourful displays and posters.

It has been open since early December.

continuous slide programme shows viewers what they may see on the island, such as the Fairy Penguin and other wildlife, and items such as brochure packs, Landscope magazinie and posters are on sale.

There is also a touch table, with things collected by volunteers from the beaches.

The centre was the result of a Metropolitan Region initiative, aided by Environmental Consultant Dr Nic Dunlop, who or-ganised the volunteers to staff the centre.

One of the main functions of the centre is the collection of visitor information for the develop-ment of the Shoalwater Bay Islands Draft Management Plan, which includes Penguin Island.

Holiday in Park

COOKING up a real Aussie brekky was just one of the may activities offered by CALM during its annual holiday activity programme in the Walpole Nornalup National Park.

Other activities designed specifically for children by volunteer Jenny Yeatman included a discovery party of the pond life in Collier Creek and a mini fauna survey of the bush around Coalmine Beach caravan park.

Despitethe unseasonally cold and sometimes wet weather, activities were well-attended by both adults and children to discover the bush and its inhabitants under the guidance of trained rangers and volunteers.

Hardy Derschow, Park Ranger and organiser of the holiday programme, was pleased with the response and plans are already being made to make next year's programme even bigger and

Volunteers, most of whom are members of the RAOU, record the number of visitors and the questions they ask, and observe the wildlife on the island. They are also there to

observe how people use the island, and could make suggestions on future management of the island. Visitors are also asked to

fill out a questionnaire about their reasons for visiting Penguin Island.

Rodney Vervest, of the RAOU, and Sheryl Stephens, were volunteers at the centre recently.

BUNBURY forester Peter Keppel has been announced the recipient of the 1987-1988 Lane Poole Memorial Trust award.

The award was announced in Bunbury recently by the Chairman of Directors of WESFI, Denis Cullity, who initiated the Trust to commemorate the link between WA's first Conservator of Forests, Charles Edward Lane Poole, and his father, Thomas Cullity, who foun-dered the timber business now known as WESFI.

The award, made annu-ally to a staff member of CALM provides financial assistance to inspect and study forest operations or research anywhere in Aus-

tralia and New Zealand. The award, which is worth about \$3000, was in-itiated in 1982 and six have

trained at the Department's Dwellingup Cadet School and was recently transferred to Bunbury after working as a District Forelarvey, will use the

Rodney said he had never been to Penguin Island before, and thought the chance to be a volunteer in the centre was a good way to see the island.

Sheryl said "It was good to be involved in something like this, to help out in a place where people can come and see such a special place like Penguin Island.

They both said they feel the information centre fills an important gap in educating the public about

been made since then.

Peter Keppel, who was

the beauty and the fragility of Penguin Island.

award to look at pro dures and controls in district management work in Queensland and Victoria. He said the trip would

improve his knowledge of specific operations and provide him with a better understanding of land management problems and potential solutions.

"This type of award provides me with a wonderful opportunity to broaden my perspective, which is so important when you are as isolated as we are in WA," he said.

Mr Cullity also took the opportunity to present certificates of election into the Trust as Fellows to last year's award winners.

They are Gerard van Didden, who studied fire control in various other States, and Tony Brandis, who looked at staff training programmes.

The Lane Memorial Trust comprises CALM's Executive Director, Dr Syd Shea (Chairman), the President of the Forest Officers Field Sta. Association, Tom Wood, and Mr Cullity.





PHILLIP BLAKEWAY (left) and Mitchell Davies prepare to fell a pine with a handsaw, while Mark Humble (foreground) and Carl Beck supervise.

TWELVE people have been chosen as first-year field officer cadets for the 1988 course in Conservation and Land Management.

Luke Coney, Peter Batt, David Lee-Steere, Charles

ton, Aaron Lori, Carl Woodley, Phillip Blakeway, John Roddy, Mitch-ell Davies, Grant Pronk and David Algaba have begun their two-year cadetship at the South West College in Bunbury.

The 12 were chosen fol-

tion course held at the interview stage; 32 partici-Cadet School at Dwellingup, where they selected trees to retain, did manual pruning and thinning, and took examinations in Mathematics and English.

There were 173 applications for the 12 cadetships; pated in two separate selection courses.

The selection courses were supervised by Dwellingup Forest Ranger Carl Beck and Collie Forest Ranger Mark Humble, and Training Officer Alan

WANNEROO EXE

A FIRE exercise in Wanneroo District, which was run in real time, with real resources, helped to accurately pinpoint problem areas in fire control.

ganised by Ross Mead, Chris Muller, Rick Sneeuwjagt and other Protection Branch Officers.

Ross said: "Previous exercises have been mostly a paper exercise while the one at Wanneroo, and a similar one at Manjimup recently, were more realistic and practical, thanks to using real time, real resources and fully setting up the control point."

The Wanneroo exercise was one of a series of training days conducted this fire season by Protection Branch to test and improve the large fire organisation arrangements and procedures in the field, the district and regional offices.

Similar exercises are planned for the Central Forest and South Coast Regions in February and March.

In the Wanneroo exercise, the simulated fire burnt through a pine plantation before burning part of Yanchep National Park

The exercise was or- and threatening nearby set-

This meant that CALM officers from Wanneroo, Mundaring, Jarrahdale and Kelmscott Regional Offices filled the various roles of the fire organi-

In addition, officers from the Police Department, the Wanneroo Shire and the Bushfires Board were called on to participate.

This allowed a thorough examination of the various command and coordination arrangements between the participating groups.

Ross said: "Before the exercise, we were not sure how physically close these vans could be and still operate communications systems properly.

"Now we have a fair idea, and we will be involved with the Bush Fires Board in drawing up a plan outlining the necessary distances and how best to set up the control point," he

But perhaps the greatest benefit of the exercise came

by chance. Only a few days after the exercise, officers and crews were called to LFOs at Jarrahdale and Brigadoon.

Ross said: "Some of the things that came out of the exercise were able to be used at the fires.

"Also, we had the exercises we could see some problems occurring and the actual fires confirmed some of our observations.

"Now we can go ahead and work on further improving our organisation." Future fire training efforts may see individual districts holding "real" LFOs, and regions holding "real" CFOs, to highlight departmental, regional and district training needs.

Other organisations involved in the training exercise reported it very beneficial.

Ross, who spent many hectic days organising and many sleepless nights worrying, said he would like to thank all the people involved in the exercise, both from CALM and outside organisations, for their cooperation.

School's Safety Success

THE Cadet School at Dwellingup is achieving safety excellence.

The last lost time injury occurred on November 27, 1985, and there have been no serious injuries since.

On February 18, 1988 the cadets will have worked for 100,000 hours without a lost-time injury accident. To take on completely untrained staff

and put them through 21/4 years of training without serious injury is a great achievement

The building of the right safety attitude and awareness in preparation for when they join Districts and Regions cannot be overemphasised.

The staff at the Cadet School are to be congratulated on their efforts along with all the cadets who have built this record.