



Youngsters on the job



TRAINEE SCHEME KICKS OFF

THE FIRST group of 150 CALM trainees have been selected and are now learning office and land management skills.

Fifteen young people are based in offices in the metropolitan area to receive training in office skills.

Twenty office trainees began work in district and regional offices on January 6.

Thirty land management trainees attended one week of technical college training at

either Midland and Bunbury in mid January, then began work in the various districts and regions.

The balance of the trainees, numbering 55, will start in April.

Some of the trainees who started in the metropolitan area are (pictured above from left to right, back row) Maria Lee, Caroline McNoe, Natalie McBeth, and Malcolm Kininmonth, and Wendyl Tennent (front).

MEETING SOUTH COAST COMMITMENTS

By COLLEEN HENRY-HALL

ACCESS to the south coast, woodchipping licences and education of the public were three of a long list of subjects the Karri-D'Entrecasteaux Region Advisory Committee have identified for future consideration.

The committee, coordinated by CALM, met for the first time on January 23 at Manjimup to discuss its role in CALM's public participation programme for the area.

The meeting was attended by Executive Director Syd Shea and National Parks Director Chris Haynes.

Warren MLA Dave Evans chairs the committee, which comprises 13 people representing local shires, business and interest groups.

Manjimup Regional Manager Alan Walker is CALM's representative. Alan said the most important current role was to advise CALM on the preparation of management plans for the area, a function which would head the agenda at quite a few of the coming meetings.

Richard McKeller, on contract with CALM to set up the committee, said members were chosen by identifying the issues in the region and the groups of people wanting access to CALM lands.

He said those groups include recreation, conserva-

tion, education and youth, rural land holders, tourism, business and shires.

In welcoming the committee, Syd Shea said the Department was committed to public involvement in land management because it had no right to impose on the public its value judgements.

He said the committee approach had proven successful in the past because when people are able to discuss something, they often end up working together to find a solution acceptable to all involved.

The committee will meet once a month to provide advice on issues referred to it and to bring to CALM's attention matters of concern or interest to its responsibilities.

The committee will also help CALM get information to the public and provide a liaison between CALM, local government and the community.

Other subjects identified for future consideration include: an inquiry into the timber industry; understanding of the area's biology and environment; fire and other protection policies; security of tenure for all uses of CALM land; provision of recreational facilities; pine afforestation; and levels of use in forests and parks.

GANDY TIMBER Pty Ltd of Manjimup has secured a contract with CALM worth \$1.4 million a year for five years for the production of about 20,000 cubic metres of small sawlogs and 40,000 cubic metres of other small logs.

Don Keene, Manager Timber Production, said the value of the contract was \$7.5 million in current prices.

The karri and marri logs will be from thinnings of regrowth resulting from previous selective cutting and there will be some pre-logging in areas to be clearfelled later.

Vasse bird survey

A RECENT survey of the Vasse and Wonnerup estuaries near Busselton has proven the area's importance to waterbirds.

The survey, by members of the Royal Australasian Ornithologists' Union (RAOU), was funded by CALM.

Roger Jaensch, Field Officer for RAOU Waterbird Studies, said the area's importance was reflected in the number of birds and the numbers of species found using the estuary system.

He said more than 33,000 waterbirds were using the estuaries for feeding and shelter, making the area one of the most important habitats for waterbirds among those surveyed by the RAOU.

The number of species recorded was 68, 18 more than found during previous surveys.

There are 19 species on the Vasse-Wonnerup Estuary protected by the Japan-Australia Migratory and Endangered Birds Agreement (JAMBA), a treaty protecting birds that stop in Australia and Japan during migration.

Previous surveys had found nine species protected under JAMBA.

Survey counts of the Yellow-billed Spoonbill and the Wood Sandpiper were the highest counts recorded for the species in RAOU studies since 1981.

Also 44 Long-toed Stints were counted, one of the highest for this species which is regarded as rare in Australia.

Protecting fauna from fire

"SOME populations of fauna on small nature reserves could be obliterated by uncontrolled fires, so it's important to know how to manage fire for their protection," said Gordon Friend, CALM Research Officer in fire ecology at the Wildlife Research Centre.

Gordon, along with Technical Officer David Mitchell, will be conducting research on the effects of fire on animals with particular emphasis on the wheatbelt nature reserves

where little faunal information has been gathered.

Litter dwelling reptiles and invertebrates will be the main groups studied.

The first step for the two is to compile data on an

area for several years before it is burned.

Problems with fire ecology research have arisen in the past because most studies have begun after the fires and assumed a pre-fire similarity between different areas.

Gordon gained a PhD from Melbourne University in zoology, researching the effects of pine plantations on flora and fauna.

He then joined the CSIRO Division of Wildlife and Rangelands Research in the Northern Territory, where he worked for seven years before becoming CALM's first fire ecology research officer.

David has just completed a double major BSc in biology and environmental science at Murdoch University.

Gordon is interested in Tutanning Nature Reserve, a comparatively large wheatbelt reserve east of Perth where Angus Hopkins, Research Officer at the Wildlife Research Centre, has studied the effects of fire on flora for several years.

Information on the effects on fauna should give a better understanding of fire ecology in the region, Gordon said.

Work also will be carried out on wheatbelt reserves

near Kellerberrin in conjunction with CSIRO, and on some experimental fire ecology plots in the Perup Management Priority Area, set up by staff from the Manjimup Research Office.

Little research has been done on the sampling methodology of pit traps, so Gordon and David also are experimenting with the design of pit traps to enable efficient sampling of litter-dwelling animals.

Gordon has just finished the draft of his research proposal, outlining what he intends to do over the next six years as Fire Ecology Research Officer.



GORDON FRIEND, (left) and David Mitchell study a pit trap design at the Wildlife Research Centre, Woodvale.

AWARD WINNER

GARY INIONS, a recent graduate of the Australian National University and now a forest officer at Manjimup research, received an award in recognition of being the year's graduate student with the most promise.

The Schlich Medal is a memorial prize awarded each year to a worthy graduate of ANU.

The award is after Sir William Schlich, a former professor of Forestry at Oxford University.

Gary received a degree in forestry with concurrent honours for a study on the interaction of possums, habitat trees and fire.

His study also was nominated for a separate award which is still unawarded.

At present, he is doing research in karri silviculture at Manjimup.



GARY INIONS with his radiotracking equipment.



From my Desk

BAD PRESS

IT IS inevitable, and I believe desirable, that CALM receives its share of media coverage.

After all we are managing public land, and one of the major sources of information for the public is the media.

Inevitably CALM will receive 'bad press'.

Sometimes it will be justified, but often it will be unfair.

During the last few weeks there have been numerous articles and letters to the editor in State or local newspapers which have been less than kind.

I am aware that unfair criticism does affect staff morale, but there is no way we can stop it from being published.

Wherever possible we have responded, but often the response is not published.

In some cases we have not responded because to do so would only give further publicity to the critics and their cause.

However, we can ensure that the public knows of the initiatives we are undertaking.

We have issued, and have had published, many press releases and over the next 12 months we will be even more active.

We are also looking at a whole range of different methods of communicating our work to the public.

But no matter what we do, we will always get some bad press and the only solution is to 'cultivate a tough hide'.

FIRE EMERGENCY

Few people realised how serious the fire situation was during the last heatwave.

CALM forces were stretched to the limit and we would have had difficulty handling another fire.

This was the first test of the new Department in a fire emergency situation and my assessment, and that of many outside observers, was that we passed it extremely well.

TRAINEESHIPS

The CALM Traineeship scheme was officially launched last month at Bunbury.

Our scheme is one of the first to be launched in Australia and considerable credit goes to all those who helped draw up the programme.

I believe it is an excellent scheme which will benefit the Department and the trainees.

Everybody knows what it is like to turn up on your first job, so I hope that if the opportunity arises you help the trainees adjust to their new positions.

SYD SHEA
Executive Director

WATERBIRD

SURVEY

PLANNED

FOR THE

NORTH WEST

THE ROYAL Australasian Ornithologists' Union, World Wildlife Fund and Earthwatch are organising expeditions to the northern coast of Australia to study wetlands and migratory waders, and they're inviting interested people to take part.

The North West is the most important area of wader habitat in the country and about half of Australia's waders either pass through or stay in the Broome to Port Hedland area.

There are two other areas of northern Australia that hold large numbers of waders: the south-eastern corner of the Gulf of Carpentaria, near Normanton in

Queensland, and the north-eastern coast of Arnhem Land. The expedition to the north of W.A. will be held between April 11-26, 1986, and August 15 to September 14, 1986.

The April expedition will continue work begun in 1985 looking at the northward departure of waders from the area.

In August-September, the arrival of migratory waders will be studied in detail through counting, banding and colour dyeing waders and watching them on radar.

The expedition to Queensland, September 14-27, will monitor a selection of good roost sites and

search for Red Knots dyed a few weeks earlier in the North West, which will help determine the arrival time of different species and the extent of migratory passage through the area.

The visit to Arnhem Land, October 13-25, will be the northern-most survey of waders in Australia and the RAOU hopes some interesting information will be gathered.

For more information on cost of travel, accommodation and food, contact: Wader Expedition Coordinator, c/o RAOU, 21 Gladstone St., Moonee Ponds, 3039, Victoria, or telephone (03) 370 1272.

BANKSIA ATLAS PROJECT

Appeal to record last areas

A THREE-YEAR nationwide survey of Banksias is in its last eight months of recording.

"The Banksia Atlas," funded jointly by CALM and the Australian Biological Resources Study (ABRS) is the first Australia-wide plant mapping project to rely on volunteers as recorders.

The project is coordinated by Anne Taylor from the Wildlife Research Centre.

Pleased with the response to date, Anne is urging all banksia recorders to submit their final efforts.

"In WA we have already discovered two new banksia species and have established considerable range extensions for other species," Anne said.

"Some parts of WA, for example Albany to Cheyne Beach on the Lower Murchison River, have been well covered, but there are

still large areas which are poorly covered."

Those areas are listed below and Anne said she would be delighted to hear from any CALM employees who live or work in the area and could fit in a spot of banksia recording.

"I am particularly hopeful that rangers and wildlife officers with knowledge of particular national parks and nature reserves will contribute information about the banksias growing in such areas — information which they may have already, but which has not yet been included on the Banksia Atlas files," she said.

In the first 15 months of recording, Anne received more than 5000 record sheets.

The data is stored on computer and distribution

maps and can be rapidly produced using the 'FLORA-PLOT' programme in use at the Wildlife Research Centre.

The latest maps have been published under the title "Banksia Atlas Interim Maps II" and anyone wishing a copy should contact Anne at the Wildlife Research Centre, P.O. Box 51, Wanneroo, 6065, tel. (09) 405 1555.

Volunteer recording kits are also available as are the four newsletters documenting the progress of the

project to date.

Poorly covered areas in W.A.: - Arrowsmith Lake - Arrowsmith Lake north to Kalbarri including Geraldton area - North of Kalbarri National Park - Coast between Arrowsmith Lake and Jurien Bay - Coast between Cervantes and Seabird - Nambung N.P. and inland to Moora - Bullsbrook to Moora and eastwards - East and south east of York and Northam e.g. Quairading and Kellerberlin - Between Mandurah, Bunbury, Beverley and Wagin - Busselton south to Blackwood River and east

to Boyup Brook - Augusta to Windy Harbour - Augusta to Manjimup - Northcliffe to Cranbrook and Mt Barker - Boyup Brook through Kojonup and Broomehill to Jeramungup, north as far as Woodanilling and Pinstrup, south as far as Cranbrook - Fitzgerald River N.P. westwards of Hammersley River - Between Frank Hann N.P., Hyden, Corrigin and Tarin Rock - North eastwards from Hyden - Between Munglinup Beach and Esperance - Cape Arid N.P. except for Mt Ragged.

Caravan bug captures John

JOHN SAVORY, a mobile park ranger for eight and a half years, has given up his official wandering in a caravan to take up leisurely wandering in a caravan.

John said he "really loved the life, enjoyed every minute of following the seasons and the tourists as a mobile ranger with CALM."

Now that retirement has come, "I'll do the same thing under my own power" as he and his wife visit family throughout the State.

John answered an advertisement for the ranger position because he was "sick of doing nothing" as a semi-retired businessman in Busselton.

He said he and his wife most enjoyed working with the public.

ADVISORY COUNCIL

FRANK MCKINNEL, Divisional Manager Services, has been reappointed to the Soil Conservation Advisory Committee (SCAC) for three years enabling him to continue a professional and personal interest in soil conservation.

The SCAC is a group comprised of representatives of farming organisations, government departments and landholders who advise the State Government on land degradation in WA.

The committee is particularly concerned with salinisation and erosion.

It is currently overseeing the setting up of soil conservation districts throughout agricultural areas, aimed at getting farmers to work together to address their land degradation problems on a district or catchment basis.

A number of CALM district and regional officers are involved since the soil conservation district activities often affect CALM

PUBLIC ENQUIRIES ABOUT 'CANKER'

"CANKER" is the term commonly used for dead areas of bark on twigs, branches and trunks of trees.

Caused by fungi or bacteria, cankers are characterised by sunken areas of bark, splits and kino exudation (a red gum-like substance).

Research Branch has received many inquiries recently about what could be canker diseases of wandoo and marri.

Some cankers develop slowly over many years, although the fungi which cause them are usually only active intermittently — the fungi take a fresh bite of the tree perhaps once a year.

The cankers eventually girdle the branches or stems and the damage is evident once the leaves of the gridded branches turn brown.

The eucalypts produce kino, a dark red substance often seen bleeding down their bark, when they are injured or attacked by insects or fungi.

Kino is a soup of poly-

phenols with some antibi-

otic properties. Maiden's "The Useful Plants of Australia", first published in 1889, gives recipes for mixing kino with distilled water for use in the treatment of diarrhea and nose bleeds.

A cross section of a perennial canker often will reveal kino veins, showing that the tree has reacted each year to the fungal attack.

Unfortunately, kino veins are one of the worst wood defects in eucalypts. Marri is one of the most sensitive species to kino production.

Marri timber is of good quality when free of veins, but this is relatively rare. The extent of the canker problem is yet to be assessed but it is unfortunate if we have fungi as well as borers increasing the incidence of kino veins.

By JOANNA TIPPETT



A typical canker on a tree near Manjimup.



WILDLIFE officers Matthew Warnock, left, and Russell Gueho with a truck-load of *Verticordia brownii* which was illegally gathered from a roadside reserve.

Illegal activities

THE few weeks before Christmas were hectic for Wildlife Officers in W.A. with people being charged for the illegal possession of both flora and fauna.

In one case, Doug Coughran and Mike Mahoney followed up a newspaper advertisement offering pink and grey galahs for sale.

Their investigation revealed that three-week-old birds had been taken from their nests, so young they only had pin feathers.

It is illegal to remove birds from the nest when they are too young to fend for themselves.

The birds were seized and charges laid. At the time, the fine for this offence

was \$400. It has since been increased to \$4000.

In a second case, cooperation between Wildlife Officers and National Park Ranger Ross McGill led to the seizure of flora illegally taken from a roadside reserve.

Doug said it was only the help of the other branch of the department that the seizure was made.

"The information flow in the new Department is quicker, and Ranger McGill advised our branch of the whereabouts of someone picking protected flora from an area outside the park he was patrolling," he said.

Russell Gueho and Matt Warnock seized a truckload of *Verticordia brownii* following the tip from Ross

WA's kangaroo quota

The Federal Minister for Arts, Heritage and Environment, Barry Cohen, announced the 1986 kangaroo quotas on January 22.

For WA, they are:

kangaroos, 50,000 Western Grey Kangaroos and 10,000 Euros.

The quota for the Western Grey Kangaroo and the Euro remained unchanged

The quota for the Red Kangaroo increases by 20,000, in accordance with the recommendations of the WA Kangaroo Management Advisory Committee. — KEIRAN



Don Keene (left), Peter Bowen, Jock Smart, Brian Cornell, Police Supt. Alan Hough, Ric Sneeuwjagt and Kevin Goss review the path of the Yanchep-Guilderton fire on January 22.

BUSHFIRE OUTBREAKS

TEST OUR RESOURCES

By COLLEEN HENRY-HALL
TEMPERATURES had been in the 40s for five days.

The air was so dry and hot that trees, grass and bushes seemed to crackle in the wind.

Conditions were perfect for a fire and all that was needed was one small spark.

That "spark" is suspected to have been deliberately lit, northeast of the Yanchep pine plantation on Tuesday, January 21.

Wanneroo fire crews moved into action.

Because of the important pine plantations in the dis-

trict, almost all fire fighting is "red action" — all available resources are committed from the first sign of trouble.

Wanneroo District Manager Alan Briggs, fire controller at that time, said after the fire: "We started setting up the Large Fire Organisation (LFO) even though we looked like having it under control quite a few times on Tuesday".

Other fire officers at the time were Keith Sclater as Intelligence Officer and Drew Haswell as Regional Duty Officer.

Ralph Smith was fire boss for the first shift and Ted Cracknell, on the second shift, was in charge of the dangerous backburning near the Wanneroo Road when the fire threatened to cross the major road Wednesday morning.

Mundaring fire crews were the first to lend assistance.

Ric Sneeuwjagt, Inspector Fire Control, said even though this was the biggest fire in WA since 1969, there were no lives lost, no major property damage and no pine plantations burnt.

Alan said the major factor of the fire was its speed.

He said it was moving at a rate of 6,000 to 8,000m an hour and fire fighting was "a case of just trying to catch up with the fire."

Sandy soils made it difficult for tankers and crews to get to points sufficiently in front of the fire to fight it and many units got bogged.

By the time equipment was moving to the front, the fire had swept past in many cases.

The LFO was put into effect Tuesday midday at the district level at Wanneroo, the regional level at Kelmescott and at State headquarters at Como.

On Wednesday, when the situation looked like threatening the settlements of Guilderton and Two Rocks and Yanchep National Park, the police moved in and eventually the State Emergency Service for traffic control, to arrange possible evacuations and to provide hospital facilities and other welfare services.

Alan said, "After the first day, we had plenty of resources and involvement from other parts of CALM."

Fire fighting crews came from as far as Busselton, Collie and Manjimup.

CALM fire crews battled 13 bush fires in the Mundaring District in the first two weeks of the year. Officers from the Wildlife Research Centre at Woodvale were on standby to staff a large fire organisation, if necessary, and National Park Rangers joined with fire crews from Mundaring, Wanneroo and Jarrahdale in what was a real team effort.

The fire fighting effort was so effective that most of the fires were controlled before they got larger than 10ha.

Lightning from three storms in the area was the major cause of the fires, although five are suspected of having been deliberately lit.

"The fire provided tremendous interaction with other agencies," Alan said.

"It was a good exercise to see how everything works in an LFO, and it also showed the need for further improvement in the development of structure for a campaign fire."

A campaign fire is a large, fast moving fire that endangers lives, involves numerous fire fighting and welfare groups and a large number of people.

Fire crews fought the blaze to the Indian Ocean. The fire fighting conditions were such that men were working in extreme heat caused by the weather and the flames.

Alan said, "I want to express thanks to everyone who showed up for the fire."

"You all showed top effort and you put up with many inconveniences, especially on the first day."

On Friday, conditions were bad and a hot north west wind was blowing. An escape occurred on the south side of the Yanchep fire which threatened Two Rocks.

Twelve employees, three officers and three heavy duties controlled this fire.

At the same time, another fire occurred in Neerabup National Park south of Yanchep National

al Park, which also threatened lives in the Quinns Rock area.

This fire was contained through the combined efforts of CALM and fire brigades from Wanneroo Shire.

A final account of the major fire was provided by Keith Sclater.

Wanneroo had 70 employees, 11 officers and eight heavy duty units committed to the fire and 18 people at Wanneroo District Office.

The rest of the Northern Region contributed 32 employees, eight officers and four heavy duties.

From outside the region came 27 employees, eight officers and two heavy duties.

Twelve bulldozers, seven graders, 14 tankers, five loaders and two heavy duties were contracted for the fire.

They also had the help of seven volunteer bush fire brigades, the army, police and St John's Ambulance Association.

Alan had high praise for the Salvation Army and the Country Women's Association, who provided food and drinks during the emergency.

The area burnt by the major fire was 10,488ha, and the small fire that flared up two days later burned 870ha.

Friendly bunch at Kununurra

By VAL STOREY

TO OUR CALM colleagues, I would like to pass on greetings for the New Year and give a run down of our staff and area here in the Kimberley for 1986.

Kununurra staff are Chris Done, Regional Manager, Dave Rose, Forester, Bob Taylor, Ranger, and myself, Val Storey, Clerk/Typist.

Noel Nannup is permanent Ranger at Fitzroy Crossing for Geikie Gorge National Park and he is assisted by three mobile rangers in the tourist season.

Forester Peter White is at the Broome Nursery.

Assisted by Rod O'Donnell and a team of nursery personnel, he propagates a variety of native and tropical exotic plants for distribution throughout the Kimberley.

Peter is also involved in mining rehabilitation at Koolan and Cockatoo Islands.

If you are planning a trip to the Kimberley this year, please don't hesitate to call into our offices at Fitzroy Crossing and Kununurra, we are a very friendly bunch and are very proud of our "team".

Ranger Bob Taylor will point you in the direction of Hidden Valley National Park, or you may even see him in there, because it if weren't for the "No Camping" sign, he'd probably live there!

Bob also covers Wolfe Creek Crater and is preparing for extra visitors as it's one of the best vantage points for observing Halley's Comet.

Wildlife Officer Mike Osborn covers an enormous area and a great deal of time is devoted to crocodiles, from catching rogue saltwater crocs in Wyndham to searching at night for reported "salties" in Lake Kununurra.

Noel Nannup had about 30,000 visitors at Geikie Gorge last year, an increase of 7,000 over 1984, and ran the Park with the help of Mobile Rangers Keith Moon, Barry Cartledge and Kevin Hughes.

Mobile Ranger Trevor Anderson cared for Windjana Gorge, which is also popular tourist spot, and John Arkey manned Tunnel Creek National Park.

A vote of appreciation goes to the Rangers' wives

who help and support their husbands a great deal.

I would also like to thank all of SOHQ for their assistance for this region, especially Stores and Accounts.

We are currently in the middle of our wet season and "wet" is just what it has been.

Fitzroy suffered again this year with floodwaters 24cm higher than the 1983 "record" floods.

During floods, Noel's only means of transport was a dinghy tied to his front gate.

The office is on lower ground and had 28cm of water running through it at one time.



FITZROY CROSSING's Ranger's Office during a "wet" season.

STAFF MOVES

THE last few months have seen more than 50 transfers at CALM.

The list is too long to print here, but the following should give some idea of who is doing what and where.

Roger Armstrong, Inventory and Protection at Kelmescott, is now an Assistant District Forest Officer at Nannup.

Rob Towers, District Manager at Collie, has taken over Roger's position in Inventory at Kelmescott.

Richard Briedahl, Assistant District Forester at Manjimup Research, has taken Rob's place at Collie at District Manager.

Keith Sclater, ADFO at Wanneroo, is working in hardwood silviculture at Manjimup.

Cameron Schuster, District Manager at Busselton, is now at Manjimup as Operations Officer.

Dennis Hilder, ADFO at Busselton, has moved into the District Manager's seat at Busselton.

Gavin Butcher, District Manager at Jarrahdale, is at Como in Environmental Protection.

Denise Allen, formerly an ADFO at Nannup and now at Jarrahdale, has taken up Gavin's position as District Manager at Jarrahdale.

THE DRYSDALE River National Park (435,590h) was gazetted a "B" Class Reserve and vested in the National Parks Board in September 1974.

The Drysdale and Carson rivers in the Park were named by C.A. Burrowes, surveyor for the Victorian Squatting Company, in 1886.

Burrowes explored the country west of Cambridge Gulf to Mt Bradshaw, and he may have been the first European to visit the area now included in the Park boundaries.

Another European visitor to the Park was C.P. Conigrave in 1911-12.

Conigrave was a member of the Royal Australasian Ornithologists Union and an account of his expedition is in the journal Emu (Anon. 1912).

A visit was made by the North Kimberley Survey and Mapping Expedition in 1954.

This expedition conducted detailed surveys and prepared a general land classification of the central north Kimberley.

They also constructed the first vehicle track from

DRYSDALE'S DIVERSE BEAUTY AN ATTRACTION

Gibb River Station to Kalumburu.

During this expedition, J.S. Morgan, retired Surveyor General of WA and member of the former National Parks Authority, discovered the falls that now bear his name.

From 1971, the WA Department of Fisheries and Wildlife organised a series of biological surveys in the Kimberley.

After the successful survey, it was decided to continue with a survey of the Park.

Funds were provided by the WA Government through the Department of Fisheries and Wildlife, the National Parks Board, the Australian Biological Resources Study Interim Council and the Department of Conservation and Environment.

In August 1975, a biological survey of the Park, led by Dr A.A. Burbidge, was done by staff of the WA Wildlife Research Centre, the WA Museum, the WA Herbarium,

CSIRO Division of Entomology and the National Parks Board.

The first proposal for a reserve in the area came from Mr Morgan in 1955.

The Park, with its original boundary, was recommended by the WA Sub-committee of the Australia Academy of Science Committee on National Parks.

The Sub-committee recommended the area because it contained land typical of the northern savannah formations of tropical Australia.

Despite approval by both the National Parks Board and the Department of Fisheries and Wildlife, nothing happened until 1969 when a Reserves Advisory Council was appointed by the State Government.

After some members of the Council inspected the Reserve, it recommended to the Minister for Lands that the area be reserved for "national park, conservation of flora and fauna and protection of Aborigi-

nal sites".

This recommendation was not accepted by Cabinet, mainly because of objections by the Mines Department that the area was prospective for uranium and diamonds.

In 1972, the newly created Environmental Protection Authority set up a Conservation Through Reserves Committee to recommend a state-wide system of conservation reserves.

The Drysdale River area was one of the first considered and in April 1973 the Authority endorsed its recommendation that the area be made a Class "A" Reserve for National Park.

Negotiations with the Mines Department resulted in the Class "B" status.

Scenically, the Park is diverse — gorges and cliffs contrast with broad rivers and plains.

Spectacular waterfalls are found on Palmoon-door Creek (Morgan Falls), on the Drysdale

River (Solea Falls) and on Johnson Creek (Cracticus Falls) as well as on many of the smaller tributaries.

The Park encompasses a cross section of the main geological formations of the north Kimberley — only the laterites are poorly represented — which is in marked contrast to the nearby Prince Regent River Nature Reserve in which one rock type, the King Leopold Sandstone, predominates.

Biologically, the Park is intermediate between the sub-humid north-west Kimberley and the semi-arid east Kimberley.

The vegetation is mostly low open-forest, low woodland, and low open-woodland but there are small areas of vine thickets and a unique area of tall closed-forest.

Because of its remoteness and rugged terrain, little collection was done before 1975, but the team led by Dr Burbidge collected 28 species of native mammals, nearly 2,500 species of insects, about 600 species of plants, 26 species of freshwater fishes, 13 frogs, 47 reptiles and 127 birds.



WONJARRING near Larryoo in the Drysdale River National Park. Picture by J.F. Morgan.

Trainees welcomed at Bunbury college

CALM Executive Director Syd Shea and the Minister for Employment and Training, Peter Dowding, welcomed 30 land management trainees to the South West College of TAFE at Bunbury on January 23.

The trainees, parents and college and government officials attended the opening of the CALM traineeship scheme, which is one of the first of its kind in Australia.

Syd told the group: "I know CALM offers the greatest range of educational opportunities of any government department I can think of."

"Your year will be a hard and tough time, but I can guarantee you will enjoy it."

The trainees spent a week at the college learning safety rules and basic land management policies.

Mr Dowding said, "It is my own belief that we don't solve problems of unemployment by putting people into \$100 a week jobs cleaning offices or working a check out stand."

"We needed to offer opportunities to young people to educate themselves and thus enable them to get better jobs."

Syd and Mr Dowding lauded the efforts of many people from the Department of Employment and Training, CALM, the Department of Employment and Industrial Relations, TAFE and the South West College of TAFE, in getting the programme started.

Syd particularly thanked Trevor Hislop, who had been seconded from the Commonwealth Department of Employment and Industrial Relations, for organising CALM's scheme.

The trainees and where they are based:

LAND MANAGEMENT TRAINEES

Kirup: David Glover, Dwayne Henderson, Si-

mon Watkin, Philip Mincham. Esperance: Matthews Bonnichia. Harvey: Robert Murfit, Russel Duffield, Sean Patterson, Stuart Cassie, Michael Lang. Bunbury Region: Ian McRobert. Gascoyne (Karratha): Andrew Horan. Manjimup: Mario Pessotto, David Manix, Martin Coulter, Karen Anderson, Richard Bruton. Collie: Wayne Simmons, Christopher Trigwell. Mundaring: David Bloomfield, Geoffrey King, Craig Yeoman, Roderick Kelson, Eric Bowley. Wheatbelt (Narrogin): Graeme Wilson. Dwellingup: Paul Halford, Melanie Mounsey, Paul Lupton, Glen Layton. Pemberton: David Evans, Peter Bamess, Michael Hordienko, Miles Harrison, Ian Jackson. Walpole: Richard Garbellini, Mitchell Bone, Geoffrey Passmore. Busselton: Craig Bell, Ashley Chitty, Shaun Eakin. Nannup: Stephen Jay, Gareth Wright, Sean England, Matthew Timms. Metropolitan (Murdoch House): Jeff Brooks, Wanneroo: Sharon Fraser, Owen Donovan, Craig Rogers, Damian Gardiner, Brett Ellis. Jarrahdale: John McDonald, Jeffrey Poad, Andrew White, Caroline Brocx, Shayne Boyle.

OFFICE TRAINEES

South Coast: Melissa Tew. Northern Forest: Bronwyn Lebrasse. Manjimup District: Coralie Franke. Manjimup Region: Linda Dean. Pin-

gelly: Judith Bleakley. Wanneroo: Caroline Dodimead. Moora: Juanita Watson. Pemberton: Deanne Bradley. Jarrahdale: Craig Gleeson. Kirup: Julie Kerklau. Geraldton: Mark Twiss. Esperance: Marlene Curtis. Woodvale: Martine van Loon. Harvey: Tracey Marinoni; Central Forest Region; Joy Simpson. Mundaring: Paulette Monague. Walpole: Jennifer Price. Nannup: Denise Pitt. Dwellingup: Sharon Findlay. Metropolitan (Como): Maria Lee, Caroline McNoe, Natalie McBeath, Malcolm Kininmonth, Wendy Tennent.



Syd Shea (left) and Peter Dowding, (right), joined land management trainees in Bunbury for the official launch of the traineeship scheme. Also pictured are Michael Cross, Executive Director of the Department of Employment and Training and Anne Evans, Acting State Director of the Department of Employment and Industrial Relations.

VISITOR SURVEY PLAN IN S-W PARK

A VISITOR survey is being conducted by CALM Planning Branch to gain public input into the Leeuwin-Naturaliste National Park draft management plan now being compiled.

Planning Officer Paul Frewer is coordinating the work on the draft plan.

The working group for the plan comprises Paul, Mike Batchelor, Senior Ranger for the Park; Dennis Hilder, Busselton District Manager; Neil Taylor, Parks and Reserves Officer; Jackie Brown, Technical Officer Planning; and Richard Hulauko, Technical Officer Planning.

The issues to be examined include protection of fragile areas and rare flora and fauna, fire management, access and services, recreation and cave management.

Over the Australia Day long weekend, 660 surveys were completed by visitors at more than 40 of the Park's sites.

Surveys also were collected in February and two more sessions, one in March and one over Easter, should provide about 2000 responses in busy and off-peak times.



The visitor survey will collect responses from people who have used the Park and are likely to use it in the future.

The draft plan will take into account the needs of the park users who are most concerned with the way the Park is managed.

"We're approaching the plan in such a way that we define the park's resources, its use pressure and visitor and community attitudes," Paul said.

The interviewers handing out the surveys also record the number of people visiting a site and visitor activities.

In addition, rangers are keeping track of numbers of visitors during weekday periods.

The survey is one phase of public participation in the draft plan.

Local community and recreation groups will be contacted and a workshop similar to that recently held in Mundaring District is being organised.

It will be a forum for local user groups to inform CALM on their views on management of the area.

The draft plan is due for completion toward the end of this year and will be available for public comment for at least two months.

PUBLICATION TITLES

ANNOUNCED

By MARIANNE LEWIS

SEVEN publication titles have been identified for Department dissemination of research and technical information.

The Policy Directorate announced the titles in December.

They were selected, after lengthy and detailed research and discussions, as appropriate to the needs of the Department.

These titles are designed to supplement and complement, but not to replace, publishing in external journals, which is preferred.

However, for various reasons, external publishing is not always appropriate.

A brief description of

each title is provided here.

For further information contact Marianne Lewis, Technical Editor, or Sweton Stewart, Senior Publications Officer, at Como, 367 6333.

LAND MANAGEMENT PLANS are produced following the requirements of the Conservation and Land Management Act.

The documents will contain all aspects of land management planning and implementation including a description of the biophysical resources, consideration of options, reasons for preferred options, and

guidelines for implementation.

They are working documents for Departmental managers and planners, with an early draft serving as a public involvement tool providing information to interested public and inviting public submissions.

RESEARCH BULLETIN replaces the former Wildlife Bulletin and Forest Bulletin.

It is an avenue for formal scientific reporting of a major research program that would generally be considered too lengthy or too parochial to meet the requirements normally demanded by external journals.

The intended audience is the scientific community.

RESEARCH PAPER replaces the former Forests Research Paper.

It is for brief to medium length reporting of research according to the conventions of scientific writing.

It may be either a completed or interim report of continuing research. They do not replace publication in scientific journals.

They report local projects that may differ from the requirements of a national or international journal. The intended audience is the scientific community.

TECHNICAL REPORT replaces the former Wildlife Report, National Parks Bulletin and Forests Technical Paper.

It is for communicating technical information on data that is a significant contribution to local knowledge.

It is appropriate for situation reports, field surveys or for presenting technical details of projects or developments, or important data pertaining to such projects or developments, e.g. management reviews or surveys.

It may also be an avenue for publication of review material on any suitable topic. Other types of reports might arise

from a study tour, or a resource inventory or be a discussion paper.

They are intended primarily for a local (i.e. WA) audience including land management agencies, technical and research personnel.

WILDLIFE MANAGEMENT PROGRAMME replaces the former Wildlife Management Programme.

This is intended for the presentation of approved management for single or groups of wildlife species in need of special consideration.

It includes a summary of biological and ecological knowledge of the species concerned, together with a statement of objectives, options and a plan for management.

The audience will be various external agencies including federal authorities concerned with export of species or products, conservation organisations and Departmental personnel.

LANDNOTE is a new publication and is intended as communication between internal research, technical and operations personnel.

It is for communication of findings from specific projects, observations in the field or state-of-the-art knowledge, as they come to hand.

This will be a significant outlet for work by operations staff in the districts and regions, or works relevant to these people, on any subject area embraced by the functions of the Department.

Landnote will be compiled and edited by Peter Kimber, Chief Scientific Officer.

ANNUAL RESEARCH SUMMARY is produced by the Departmental Research branches.

It is a summary of all research activity within both Wildlife and Production research branches, set out according to project and identifying research officers.

It is intended for internal reference and readership.

Revegetation success

A TRIAL management plan to counter erosion of poolside banks at the Millstream National Park has proved encouraging.

The trial was started about 18 months ago at Deep Reach Pool where vehicles were causing problems.

The area was fenced off and River Gums, Coolabahs, Millstream Palms and acacia ampliceps planted.

Despite flooding, more than 50 per cent of the plants have survived, with some River Gums standing 1.5m.

One notable aspect of the trial was the amount of flood debris

that accumulated along the fence line and the growth of the young plants at these sites.

The effect is striking, and reflects the famous

fence line at Grimwade, which highlighted the need for trace elements on laterite soils for Pinus Radiata.

Following the success

at Deep Reach Pool, more fences have been erected by Trainee Rangers at Millstream, and the next wet season is eagerly awaited.

Wood ID service

THE Wood Utilisation Branch at Head Office has a timber identification service that has been set up over the past three years.

In 1982, Yugo Ilic, experimental scientist with the CSIRO Division of Chemical and Wood Technology, Victoria, trained several officers in practical aspects of wood identification.

Since then, Don Challis and Phil Shedley have offered a wood identification service when time permits.

If disputes arise concerning the identification of a specimen, a sample is sent

to Mr Ilic for confirmation.

The CSIRO Division of Chemical and Wood Technology currently uses a micro-computer based wood identification process.

It is hoped that some time in the future, CALM may be able to introduce a similar system for timbers available or commonly used in W.A.

In the meantime, if you have a timber sample of a commercial species that you require to be identified, please forward it to Don Challis or Phil Shedley at Como. — DON CHALLIS



WANJARRI shearing shed.

Wanjarri cleanup

Active, on-the-ground management of Goldfields Nature Reserves began recently with a working week at Wanjarri Nature Reserve, 430km from Kalgoorlie.

Work was urgently required on the reserve so a week was arranged and the opportunity used to get all the staff together.

The crew was Ian Kealley (Acting Regional Manager), Mike Tagliaferri (Assistant Forester), David Pearson (Research Officer), Dan Grace (Technical Officer), Bob Fitzgerald (District Wildlife Officer) and workers Zlan Freeman and Phillip Goodall.

Lee-Anne was left to run the region in our absence.

Wanjarri is a Conservation of Flora and Fauna A Class reserve of 53,248ha. It was a Nature Reserve in 1970.

The area has a wide diversity of habitats including breakaway, granite outcrops, mulga woodland and spinifex hummock grassland.

The diversity of habitat is reflected in

a diverse flora and fauna.

Remnants of pastoral activity are an old shearing shed, fences and mills.

The main work for the week concentrated on restoration of the shed, rubbish and fire hazard removal and repair of the shed windmill.

The crew achieved plenty with solid 12 hour days.

The windmill and plumbing to the shed was repaired.

About 10 tonnes of rubbish was removed and the fire hazard reduced.

Tracks and firebreaks were dragged. Final restoration work on the shed was completed and a pit toilet constructed.

It wasn't all hard work — time was spent inspecting the reserve for future work, management plans and research needs.

Forty three species of birds, several mammals and reptiles were identified.

With future proposed work the Wanjarri shed will become a valuable field study centre located within this unique Nature Reserve. — IAN KEALLEY