

## Walk trail an attraction



SHANNON Forest visitors at the start of a walk trail.

## Recreation facilities completed at Shannon

By RAE BURROWS

RECREATIONAL facilities in the Shannon Forest have been completed recently.

The first facility that visitors will encounter is the information centre.

The centre, made of poles with a shingled roof, houses an attractive display on the history and development of the Shannon mill, land management practices, fauna and fungi and camping guidelines, which should interest all visitors to the area.

The structure and display are the products of the labour of CEP workers and are testimony to the skill which can be tapped in these programmes.

Other facilities in the Shannon were also constructed under CEP grants.

They include a barbecue shelter,

tables, camping facilities, barbecues, a rammed earth multi-use centre, toilet block and more than 10km of walk trails.

The Shannon Dam Walk is a family trail, and accessible to disabled people for the first 600m.

The Rocks Walk gives visitors a beautiful view of the river basin.

Scheme workers have spent a great deal of time rehabilitating the old mill and townsites.

The mill site and several kilometres of old tracks have been ripped up, landscaped and replanted.

Remains of the original townsite and the tangle of exotic and often noxious plants have been removed and the area landscaped so it now forms an excellent camping area.

# \$4.7m BOOST FOR WOOD RESEARCH

A \$4.7 million expansion of WA's wood utilisation research programme over the next four years, has been announced by the Minister for Conservation and Land Management, Barry Hodge.

Mr Hodge said the Federal Minister for Industry, Technology and Commerce, Senator Button, had approved a research contract worth \$1.7 million to the Department of Conservation and Land Management to research and develop techniques to convert small diameter trees to high quality sawn timber.

The Federal funds will be matched by the Department of Conservation and Land Management and further funds will come from the recently announced woodchip royalty allocation to timber utilisation research.

The application for the contract was made by the Forest Production Council of WA, an industry advisory body to the Department.

Phil Shedley from the Timber Production Branch was the main architect of the application.

Mr Hodge said he was delighted with the Federal Government's decision because it acknowledged that the Department of Conservation and Land Management and the WA timber industry were leading the rest of Australia in wood utilisation research.

In the 18 months since the Centre had been established techniques had been developed which resulted in a 400 percent increase in the proportion of sawn jarrah which could be used for furniture.

The State received \$15 a cubic metre for jarrah logs, furniture grade timber was worth more than \$2,000 a cubic metre.

The market for furniture grade timber worldwide was increasing dramatically.

The Federal contract was awarded specifically to research the utilisation of small size jarrah trees and other eucalypt species.

It was generally not realised that where there was a deficit of large trees in the karri and jarrah forest, there was an abundance of small trees

in regenerated, regrowth forest.

Thinning of these trees was essential to increase growth of the residual trees and enhance the forest's recreational and conservation values.

Thinning of the forest in water catchments would also result in large increases in water yield.

If the small tree resource could be utilised as a consequence of the research at Harvey, there was potentially an extra 400,000 cubic metres of forest worth about \$100 million which could be used each year.

This could generate an extra \$1,000 jobs.

This additional timber resource could be obtained without unnecessary pressure on the forest.

One interesting aspect of the contract was the proposal to research Eastern States' eucalypts which have been planted on bauxite pits and on catchments.

He said there were more than 8,000ha of different eucalypt species planted in WA on bauxite pits and on farmlands.

Many of these trees, particularly those on bauxite pits were reaching a size where, if the research programme was successful, they could be potentially converted into high grade sawn material.

## DESERT SEARCH FOR RUFIOUS HARE-WALLABY

A SMALL hare-like wallaby thought to be extinct on the mainland in WA will be the subject of a two-week survey in the Great Sandy Desert later this year.

CALM's wildlife researchers will look for the Rufous Hare-Wallaby, one of five known species of small hare-wallabies that were once common throughout most of the arid and semi-arid parts of Australia.

They derived their scientific name — Lagorchestes — from Greek, meaning dancing hare.

Of the five, two are extinct, two (including the

Rufous Hare-Wallaby) are rare except in restricted habitats, and one is fairly common.

CALM's Principal Wildlife Research Officer, Dr Andrew Burbidge, said small populations of the Rufous Hare-Wallaby existed on Bernier and Dorre Islands off Shark Bay in WA, and in the Northern Territory's Tanami Desert.

He said distribution of hare-wallabies declined severely on the mainland with the clearing of land following European settlement and the introduction of predators.

Before European settlement, the use of fire to hunt the wallabies by Aboriginals enhanced the species survival.

Regrowth following fire improved the sources of food and shelter, while the small fires prevented large summer wildfires that threatened wildlife.

Dr Burbidge said a \$31,000 grant from the Australian National Parks and Wildlife Service towards the project would enable researchers to use a helicopter in the Great Sandy Desert.

It would be used to drop supplies at base camps, transport researchers to study areas and to help locate mammal populations.

Dr Burbidge said a helicopter would be of great benefit in the desert because of the difficulty of travel in vehicles.

## Fence aids rare fauna

THE spectacular recovery of one of W.A.'s rarest wildflowers shows the value of fencing rare or endangered flora, said Dr Steve Hopper, Research Officer at CALM's Wildlife Research Centre.

One Wongan Triggerplant was known to exist in WA in 1980.

A sheep-proof fence was erected around this specimen and a second plant appeared inside the fence the following year.

By 1985, the count was up to 35 plants.

Fencing flora is particularly important in areas where sheep or other animals are grazing or where human activity may inadvertently destroy a small population of plants.

Steve said the survival of the Wongan Triggerplant was less threatened today as a population of about 1000 Wongan Triggerplants had since been discovered several kilometres from the original specimens.

# Barry Hodge appointed CALM Minister

MR BARRY HODGE, MLA, has been appointed Minister for Conservation and Land Management.

He succeeds Mr Ron Davies, who did not seek a ministerial appointment after the recent State elections.

Mr Hodge, who was Minister for Health in the first Burke Labor Government, comes from a family with a strong interest in politics.

Born in Melbourne on February 16, 1944, he came to WA with his parents when he was 10 years old.

Following an education at Christian Brothers College, Fremantle, he began a 10-year career as a technician in radio and television.

After taking night-

school classes at Perth Technical College and working at commercial radio stations 6PR and 6IX, he joined TVW Channel 7.

While working at Channel 7 he met his future wife, Dianne, also a technician, whom he married in 1969.

In 1969 he decided to pursue a new career as a full-time official of the Hotel and Club Caterers' Union, later re-named the Liquor Trades' Union.

He held office in the union for six years — two of those years as President.

His union affiliations include membership of the Professional Radio

Employees' Union for 10 years and membership of the Liquor Trades' Union for 14 years.

In 1975, Mr Hodge was elected to the post of Assistant State Secretary of the WA Branch of the Australian Labor Party.

Following the retirement of a former Labor Premier, John Tonkin, from the WA Parliament in 1977, Mr Hodge was elected as Labor Member for Melville in the Legislative Assembly.

During his first term in Parliament, he represented the State Parliamentary Labor Party on the Public Accounts Committee, later serving

as a member of the Parliamentary Party's Health and Industry Committees.

Following the election of a Labor Government in 1983, Mr Hodge was elected to Cabinet and became Minister for Health.

A member of Rostrum Club 20 for the past 10 years, he helped to form the Melville Citizen's Relief Fund Incorporated — a body providing emergency financial relief to needy families in the Melville district — and was elected to its first Committee of Management in 1982.

A keen jogger and one who likes to keep fit, he



BARRY HODGE

enjoys gardening and fishing — when time permits.

Mr and Mrs Hodge have two young children, Kim and Jennifer, and live in Melville.

## From my Desk

TIMBER is one of the major resources used by West Australians and the State's timber industry is a very significant contributor to the State's economy and the State's budget.

It is also a major employer, particularly in regional areas such as Manjimup, which would have great difficulty surviving in the absence of a timber industry.

Since the industry obtains most of its resource from lands managed by CALM, it is a very important client of this Department.

The last few weeks have seen several important policy initiatives by the Government, which will have major effect on the industry and the Department.

In addition to the decision to increase woodchip royalties and to allocate a large sum of money to CALM's Wood Utilisation Research Centre at Harvey, the Government has accepted the recommendation of the Honorary Royal Commission to incorporate the Timber Bureau into the Department.

As a consequence, a new Division of Forest Resources will be established which will incorporate the timber production, inventory and silviculture branches.

The Director of the Division of Forest Resources will report to the General Manager.

These decisions, I believe, are a forerunner to a number over the next 12 months which will have major implications to the timber industry and the Department.

This is because of the juxtaposition of a number of factors.

These include Australian-wide public controversy surrounding timber production in State Forests, the statutory requirement for CALM to produce land management plans for the forest regions in the next 12 months, major changes in the utilisation and marketing of timber, and the biological fact that the resource that the industry has used in the past — large trees — is running out.

In response to these changes, CALM, in addition to producing land management plans for the three forest regions, will produce a white paper on timber production strategy for the State.

We are also currently involved in a general royalty reappraisal.

All this means that the next 12 months will determine the way the timber industry develops over the next 20 years.

During these next 12 months, we will be involved in intensive and, I expect, vigorous negotiations with the industry and other members of the community concerned with the use of forest for timber production.

It will be a difficult and time-consuming exercise, but in the end I am optimistic that we can derive a long-term strategy for a vigorous and sustainable industry which will provide timber for West Australian Consumers, and also provide all other members of the public with an equity in the State's forests.

SYD SHEA  
Executive Director

CALM News is the Department of Conservation and Land Management's monthly staff newspaper.

We hope you will become involved in its publication by sending articles (up to 400 words), letters, photographs (with captions), minutes from meetings and items of interest to:

Colleen Henry-Hall,  
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Como WA 6152 — phone 367 6333 — ext 325.  
EDITOR: Richard Grant 386 8811.

# UWA students survey silver gulls on Penguin Island

An up-to-date report on the vegetation and population of silver gulls on Penguin Island is the result of a survey by geography students from the WA University.

Ten students visited the island in October as part of an assignment.

Their aims, decided during earlier discussions with Ranger Jim Maher, were to note any changes in the vegetation pattern since 1983, to discover major increases in vegetation loss, to estimate the number of breeding Silver Gulls, and to offer suggestions on possible management strategies.

The group estimated

there were more than 1200 occupied gull nests at the time of the survey and that more than 2000 gulls were on the island.

Their report says: "All available evidence suggests that the silver gull population is expanding extremely rapidly and that this explosion . . . is in some way detrimental to the

population of other species of sea birds, and hence to the conservation status of the island."

The culling of the gulls is one of the most urgent management decisions, they said.

As to vegetation, the group suggests that signposting was urgent, especially where people get off the ferry.

Also necessary is a well-defined system of access routes to avoid further vegetation loss.

The one-day exercise "was a good example of cooperation between a tertiary institution and CALM, resulting in benefit to both parties," said Barney White, Assistant Manager, Metropolitan Region.

## PUBLIC WORKSHOP AT MUNDARING . . .

# Protection management issues aired

By Drew Haswell

THE public again well attended a Protection Workshop at Mundaring on February 21.

Of 70 people who attended, 44 represented public interest groups, including beekeepers, rifle clubs, riding clubs, environmental consultants, conservation groups, bird watching unions, wildflower societies, 4WD clubs, ratepayer and progress associations and local authorities.

The workshop was held to obtain public comment on a range of protection management issues on CALM land at Mundaring.

Protection management was broadly defined into the areas of fire, disease and the environment.

Information sessions followed the opening by Peter Hewett using both CALM and speakers from the Mundaring Shire, Agriculture Protection Board Water Authority of WA and the Wildflower Society of WA.

The first afternoon

workshop, on fire, identified some main concerns.

These included the protection of life and property, education of the public about fire, and variations in prescribed burning regimes.

Some suggested strategies were better definition of policies and strategies using fire management plans, training and financing of fire fighting organisations, public education, research and improved liaison.

Major disease issues were identified as the need for funds to improve disease control; restriction of access and operations; rehabilitation in national parks; and public education.

Environmental issues involved feral animals, noxious weeds, water quality, logging and rehabilitation, and public misuse of natural lands.



GORDON STYLES demonstrates the use of the foam branch to disperse fire fighting foam.

## TEST FOR FIRE FIGHTING FOAM

A SYNTHETIC concentrate that produces fire fighting foam 60 times the volume of water to which it is added is being evaluated by CALM for use in forest fires and mopping up.

"Fighting fire with foam is not new, in fact it has been in use for over 100 years," said Gordon Styles, Regional Forester at Bunbury, who is in charge of the development and research of CALM fire fighting equipment.

"What is new is its application in forest fire control."

The foam has benefits other than making water go further.

It is particularly effective when

applied as a blanket on hot glowing embers, which overcomes the problem of steaming and blowback when water is applied directly to hot spots.

Where access permits, it can be used as a firebreak and unlike water, the operator can see where the break has been laid.

"Chemical fire retardant can be added to the water tank to enhance the fire fighting and adhesive properties of the foam," Gordon said.

The foam concentrate is dispensed from a separate tank via a tap into the suction side of the water pump.

With a change of nozzle to a "foam branch" and a turn of the tap, foam can be instantly generated.

● SUSAN WORLEY, a teacher seconded from the Education Department, will be working with the new CALM education officer as a liaison between CALM and secondary teachers.

Susan, who was a secondary science teacher at Mt Lawley and Busselton, is hoping to be able to provide teachers with accurate information about CALM's activities and suggest ways that this information can be used in the existing school curriculum.

To achieve this, Susan is keen to participate in

field trips and research work to familiarise herself with departmental activities.

She will also request information from specialists within CALM, to be used in preparing resource packages for teachers and will be involved in coordinating requests for visits to school groups by CALM officers.

## Canberra student on visit

PHYONA ROBERTSON, a second-year landscape architecture student at Canberra's College of Advanced Education, gained experience in her profession when she worked for CALM over the summer break.

As project designer for the Icy Creek camping area near Dwellingup, she was responsible for designing the group camping area and later supervising initial site works.

She spent several days surveying and collecting information on the site and recording her impressions.

In the office she plotted that information on a map and eventually created two options for the best use of the site for group camping and recreating.

In designing the camping area she considered such things as vehicle access, recreational activities and whether camping would be in large areas with many sites or in smaller, divided areas with fewer sites.

Her design for Icy Creek has been accepted and work is expected to begin soon.



PHYONA ROBERTSON

## Reflections on 'The Fire'

DURING the long days and longer nights of "the fire", there was little time to reflect on the dedication and hard work of all involved.

Once "the fire" was out, people started swapping stories and these few examples are representative of the effort put into controlling the fire.

We regret that many of the stories are not publishable here, but some can be:

GORDON STYLES, Regional Forester Bunbury, drove from Esperance to Perth in one day, arriving at the fire in time to start on night shift.

The fire also gave Gordon the chance to fulfil a lifetime dream.

He had always wanted to be a

passenger in a patrol car and he got a lift from Como to the fire compliments of the police.

It's nice being able to do that on the right side of the law.

KEVIN WHITE, District Forester Bunbury, spent 11 hours and 20 minutes in the air in the back of a spotter plane.

To put that into perspective, a flight from Melbourne to Honolulu takes about 10 hours and 30 minutes and passengers get free drinks and the use of toilets.

FIFTY people were requested from the army to help fight the fire.

They were told to bring along two shovels, two rakes and two knapsacks each.

Within 10 minutes of the request, CALM got a call from the Department of Defence asking how they were going to use knapsacks to put out the fire.

JOCK SMART, Superintendent Protection, and Steve Quain, Divisional Manager Operations, have fought many a fire together down south, and they affectionately call the southern ocean the Great Southern Fire Break.

After running this fire into the Indian Ocean, they now call it the Great Western Fire Break.

A female CALM officer, called out once again on fire duty, said, "Working for this Department is the finest form of contraception I've ever known."



CALM Security Officer JIM STAMATIS (left), seems undecided on whether he should give this helicopter pilot a parking ticket after he landed on the bitumen outside the Bush Fires Board office during the fire.

# DECORATED CAVES ATTRACTION IN S.W.

SOME of the best "decorated" caves in the world are in WA, and most of those caves are within Leeuwin-Naturaliste National Park.

And the fact that there are more than 350 wild caves between Yallingup and Augusta doesn't make Ranger Rob Klok's job any easier.

Rob has responsibility for the wild caves, stemming from an interest that began with his training at Yanchep National Park.

At present he is looking at starting a registry of people who go into any of the caves, which would make rescue efforts easier.

He said he also wants to make three caves, at a different level of difficulty, more accessible to the public and "coax people to use those three and leave the others alone".

Rob works closely with WA caving clubs in taking care of the wild caves.

The caving clubs have surveyed the area and are reluctant to give out cave locations because uninformed people can damage a cave's decorations or possibly be injured.

"People like to think they're finding their own

way through or it will seem like they're in one of the tourist caves," Rob said.

So there is a need for three wild caves, each with some development according to the level of difficulty.

Coolgardup Cave is the least challenging and suitable for kids.

Giants Cave, 550m long with five chambers, is of average difficulty and is suited to cavers with a bit more experience, Rob said.

Bride's Cave is the most challenging, requiring abseiling, climbing and rope techniques to get to the entrance.

## Joe bows out a happy man

"The years as a national park ranger were the happiest years of my working life without a doubt," said Joe Hill, Supervisor at Yanchep National Park, who has retired after 18 years with the Department.

In 1968 Joe answered an advertisement for a maintenance worker at Yanchep.

A heavy plant operator who had recently arrived in Australia from England with his wife Nina and three children, Joe was attracted to the position because a house went with it.

Joe moved from Yanchep to Fitzgerald River National Park in 1973 for four years, finishing as Ranger-in-Charge before heading to John Forrest National Park in 1977 to serve as Supervisor until 1981.

In 1981 he returned to Yanchep, his favourite Park.

"The great thing about

Yanchep is the diversity," Joe said.

"There are so many things people can do here and so much we can help them to do.

"I learnt the need for conservation here.

"Coming from an overcrowded country and seeing the situation here in Perth, I realised the need for people to have a place to come to unwind."

Joe and Nina are building a house at Yanchep, where they will live when they move from the Park residence.

Yanchep staff threw a party for Joe on his retirement, with about 50 people seeing him off in style.



Joe Hill

## Wood moisture study

A SURVEY will be undertaken at the Harvey Wood Utilisation Research Centre to determine the moisture content of different sized logs after they have dried for varying lengths of time.

Gary Brennan, forester in charge of the project, said the one-month survey will begin in late March or early April and will sample forest sites that have had one, two, three, four

and six summers of drying.

Gary said the results will be important to possible future uses of jarrah residues in the South-West.

The wood from dieback sites, left after thinning and logging operations, could be used by industry in future.

As high moisture content of the wood increases the weight, transportation costs are also increased.

The moisture content is

## VIEW FROM THE ROAD

IT'S a sad fact of life that the closest some people get to nature is driving through the country on the highway.

But those views of the bush can be just as satisfying as walking 30km of the Bibbulman Track 1f, for instance, the drive is through a stand of towering karri trees or sun-dappled wandoo in late afternoon.

Unfortunately, such visual treats are rare and coincidental, but it is possible to design road views to reveal the beauty and diversity of the surrounding forests.



A landscape project by Eugene Herbert, a landscape architect formerly with the Department, and Wayne Schmidt, of CALM's Recreation and Landscape Branch, will be carried out under a Community Employment Programme grant of \$162,572 to improve the "view from the road" of a section of the highway between Bedfordale Hill and the headwaters of the Serpentine River.

The outstanding feature in the area is Mt Cooke and the project will open up some stunning views of the highest landform along the highway.

In what is a new use for CALM, a computer has "visualised" how the changes will improve the road view from nine different points along the highway.

The computer programme, VIEWIT, depicts how much of a particular landscape can be seen from various observation points, according to information on topography and vegetation which it has been given.

Recommendations for the project include selectively removing the pines in roadside plantations that obscure the view of Mt Cooke and replacing them with shorter, native plants.



RANGER Rob Klok inspects Giants Cave, a wild cave of medium difficulty. CALM placed a steel footbridge inside the entrance to the cave.

# Fitzgerald rich in history

By NORMA KEEN

THE Fitzgerald River National Park is surprisingly rich in history, beginning with its early occupation by small groups of Aborigines.

These people gave every creek, spring, river, hill and lake beautiful names which roll from the tongue: Gnan Meip, Narpalungup, Queelup, Poori Jungup. The meanings of these names are now lost to us.

The first ship known to have sailed this coastline was the Dutch "Guillem Seepaart" in 1627, with Pieter Nuyts as a passenger and the land seen from the ship was dubbed Nuyts Land in his honour.

1791 saw Englishman George Vancouver paying a visit to this same coastline and the re-naming of landmarks began as he decided on "Point Hood" and "Doubtful Islands" for two of the coastal features.

A year later the French Captain, Bruni d'Entrecasteaux, in charge of the two vessels "Recherche" and "Esperance", explored the coastline with Naturalist Monsieur Riche.

Because of the interest of the French, Britain sent Matthew Flinders on "Investigator" to explore the entire Australian coastline and, as he charted this region in early 1802, the Aboriginal names were exchanged for mundane titles such as "West Mount Barren" (Queelup) and "Mid Mount Barron" (Narpalungup).

The coastline was well-known to the early sealers and whalers also.

Whales left the icy Antarctic waters to visit the warm and shallow bays of this southern

shore and the whalers set up lookouts on the cliffs and headlands facing south across the sheltered bays.

Edward John Eyre, with his Aboriginal companion Wylie, a native of King George Sound, crossed the rugged Fitzgerald River area "with West Mount Barren in view" in 1841, toward the end of their epic and tragic journey from South Australia to Albany.

In 1848, Surveyor-General John Septimus Roe headed an expedition to find grazing country and to look for signs of coal rumoured to exist in the area.

Roe's party travelled east until they reached the Russell Range.

Abreast of Esperance Bay, they turned and followed a more southerly route to reach the Fitzgerald River where they gathered samples from a coal deposit.

Heading downstream toward "Echo Glen" and the estuary of the river, Roe was not surprised to

find "the tracks of three horses and a pony, supposed to have belonged to our indefatigable botanist, Mr James Drummond, who was known to have been recently in this part of the country prosecuting his favourite pursuit".

Roe visited Gnan Meip (the Fitzgerald Estuary) on December 30.

Having passed close to the landward side of West Mount Barren, his party descended the red shale cliffs and camped close to where Quaallup Homestead now stands near the Gairdner River.

He visited Yoor-de-lup, which he renamed Gordon Inlet before proceeding to Bremer Bay and Albany.

The Australian Surveyor A.C. Gregory and his brother were sent in early 1849 to check the coal deposits and to find a suitable route to the coast for transportation of coal, and a map of 1863 shows a proposed road from the coal seam to Point Ann.

In the 1850s, John Wellstead travelled from Albany seeking grazing

land near the coast and he became the pioneer settler in the Bremer Bay area.

In 1858, he completed a three-room homestead of local quartzite stone on a sheltered bend of the Gairdner River in view of West Mount Barren.

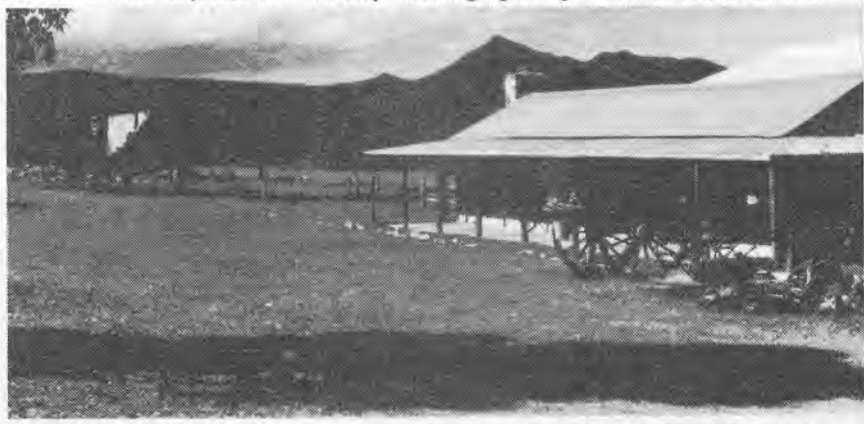
Quaalup Homestead was enlarged later and still stands on its original 40-acre Crown grant of land, surrounded by national park.

The Homestead gave the common name to the lovely wildflower Pimelia physodes, the Qualup (sic) Bell, and the track from the Homestead to its outstation near Echo Glen became much travelled in later years when the East-West Telegraph Line straddled the countryside.

Also still in evidence are the abandoned shafts of Thomas Sherratt's copper mines at Naendup above the Dempster Inlet.

Sherratt had sailed his cutter, the "Walter and Mary", into Pt Charles Bay in the early 1860s and landed his prospectors there.

The shafts now bear mute testimony to another failed venture.



QUAALUP Homestead, built at West Mt Barron in 1858.



Richard Hammond

# CALM appoints a landscape architect

**MANY** people have the mistaken impression that a landscape architect only designs rock gardens.

That could not be further from the truth where CALM's newly-hired senior landscape architect is concerned.

Richard Hammond, with more than eight years experience in landscape architecture with the former Victorian Forests Commission, joined CALM's Recreation and Landscape Branch recently.

He described the job of the landscape architect as "systematically inventorying and assessing an area's visual resources and integrating these into the planning and management processes."

The landform, the vegetation and the soils and how man alters them all contribute to the visual impact of an area.

"That first look often determines how people perceive that public land and its management," Richard said.

CALM's land managers could learn to use landscape planning to give people a more positive impres-

sion of how the land is being managed.

Richard will be working with CALM managers and officers in a number of areas including recreation planning, construction and development; road building; hardwood and softwood management and impact assessments; and site development, design and rehabilitation.

"Education and training on the use of landscape planning are extremely important and it's something I want to emphasise in the immediate future through seminars, workshops and lectures within the Department," Richard said.

Apart from working on his regular duties Richard is willing to advise or answer question on visual impact and landscape planning.

Richard came to Australia from the U.S. in 1977 on contract with the Victorian Forests Commission to establish a visual resource management programme.

The position with CALM was "attractive professionally and personally," Richard said, adding that the "light, vitality and freshness of the West" appeals to him tremendously.

## Improving softwood plantations

By JOHN IPSEN

**TREE** breeding plays a vital role in improving the quality of seedlings available for softwood plantations.

Last March, "Search '85" began with the aim of identifying high quality *Pinus radiata* (D. don) individuals known as "Plus Trees", suitable for future tree breeding.

The search focused on the Nannup, Busselton and Harvey districts, culminating in the systematic appraisal of about 500 ha of 26 to 29-year-old stands.

Trevor Butcher, Senior Research Officer at Como, coordinated the programme and trained a team of four field assessors to recognise Plus Tree characteristics.

These characteristics are stem straightness; multi-nodal branching; member of the dominant height stratum; virorous, dark green healthy crowns; and scattered but persistent cones.

Trees had to be above

average in all to be selected.

Following the initial selection in May, each tree was classified in more detail with measurements of DBHOB, tree height, crown depth and width and an identification number.

The collection of tree shoots used for grafting (scions) and cones from each tree was done from September to December to coincide with the spring growth flush.

Each 8cm long scion was collected by shooting the growing tip (leader) from the tree using a .22 Hornet rifle.

Up to 300 rounds a day were used to collect six

scions from each tree which were then sent to Wanneroo for grafting.

Grafting is a form of vegetative propagation used to produce a tree with similar, desirable characteristics of its parent.

In addition, about eight cones a tree were collected and sent to Wanneroo where the seed was extracted and stored for the 1986 planting programme.

The first breeding programme, which began in the 1950s, has resulted in an improvement in the growth rate and form of trees in *P. radiata* plantations in W.A.

## SAFETY SUCCESS

**DWELLINGUP** District has been working hard on their safety record and their efforts have been rewarded.

They recently received the Executive Director's Safety Award for going six months without a lost time accident.

The focus on safety at Dwellingup has included District Safety Information Days when different aspects of safety are discussed and a monthly District award to the person with an outstanding safety achievement.

At a special presentation, CALM General Manager, Roger Underwood, congratulated the District and presented 12 people with First Aid Certificates.

They were Kevin Ashcroft, Alan Byrne, John Chilcott, Ross Mead, Thomas Rouse, Heather Warren, David Wor-

sey, Alfred Allen, Michael Bradley, Christopher Hodgson, Brian Smith and Ian Wilson.

Roger said he was especially delighted by the safety performance at Dwellingup. "I have often said a good safety achievement simply reflects a good work climate," he said.

"If people are concentrating on the quality of their work, be it in management, research, the office, gang or workshop, it all comes together."

He said he was therefore not surprised to find that other aspects of work at Dwellingup were also going very well.

He had particular praise for the die-back programme, recreation work, jarrah silviculture and fire control work in the district.

## WOODCHIP ROYALTIES INCREASED

**THE STATE GOVERNMENT** has increased woodchip royalties by more than 300 per cent.

Conservation and Land Management Minister, Barry Hodge, today said 10 per cent of the increase would be allocated to a trust fund set up for wood utilisation research.

About 50,000 tonnes of woodchip is produced in Western Australia each year.

Mr Hodge said: "The Government believes the new royalty of \$10.29 a tonne is fair and reasonable."

"Application from January 1, 1986, the royalty was recommended by an interdepartmental committee after protracted and indepth study."

The committee considered a number of factors, including the current export price for woodchip, the relativity of woodchip royalties to sawlog royalties and the current profitability of companies which was determined by an independent financial consultant.

Woodchip royalties, which are reviewed at five yearly intervals in accordance with the Woodchip Agreement Act, were last reviewed in 1980.

This agreement expired in 1991, Mr Hodge said. Mr Hodge said he was concerned about the time between reviews.

During renegotiation of the agreement this would be one of the matters given close attention. Mr Hodge said he was pleased that State Cabinet had agreed to allocate 10 per cent of the royalty increase to a trust fund for wood utilisation research by the Department of Conservation and Land Management.

This would yield up to \$400,000 a year and may be matched by Commonwealth funds, because of the research being done in W.A.

## OVERSEER RETIRES

**BILL LYNN**, acting overseer, Busselton, retired in March more than 39 years of service with the Forests Department and CALM.

Bill joined the Forests Department at Margaret River in 1946 when he was engaged to plough fire breaks with his own team of horses for a three-month trial period.

He later joined the Department permanently at Margaret River and has worked there during his entire career except for about 12 months in the 1950s when he was acting overseer in charge of a road construction crew at Gnaragar.

Bill has contributed to all aspects of forest work over the years, including carrying out tree marking in advance of hardwood logging operations during 1969-70.

Recently, Bill led a CEP crew as acting overseer on a project involving silvicultural tending of pine plantations and development of recreational facilities in the Margaret River area.

Bill has chalked up 32 years without incurring a lost-time accident and received a Safety Award of Merit and citation from the Executive Director at a farewell function at Busselton recently.

## First salvage logs auction

**THE** first auction of salvage karri and marri logs was held at the Manjimup District office on January 31.

The auction gave small sawmilling companies the opportunity to buy parcels of logs rejected by general purpose sawmillers.

Though attended by representatives of seven local milling companies, the bidding was dominated by Gordon McLean of McLean Sawmills, Denmark.

Mr McLean bought three lots of karri and marri salvage logs at the upset prices of \$29, \$23 and \$18 a cubic metre respectively.

The price of another lot of karri salvage logs was forced from its upset price of \$19 to \$29 a cubic metre by competition from Drake of Middlesex Sawmills.

The prices were slightly lower than expected by Regional Manager Alan Walker, but the current royalty paid for salvage logs is in line with the royalty for this grade of log.

The auction was run by Chris Marmion, CALM clerk-in-charge of registration, and Jim Adams, CALM registrar and an official auctioneer with 30 years experience.

— RAFF BURROWS

## POPULATION, POVERTY CONSERVATION CONCERNS

**SUSTAINABLE** management of coastal zones in the South East Asian Region seems a difficult objective to achieve as a result of the twin problems of over-population and poverty, the Director of Nature Conservation, Dr Barry Wilson, said on his return recently from a UNESCO meeting in Indonesia.

Dr Wilson represented Australia at the 2nd of Regional Meetings, established under the UNESCO Man and the Biosphere Programme, to foster research and management of coral reef, mangrove and other coastal zone ecosystems.

The meeting was attended by 40 delegates from nine Asian and Pacific nations.

Dr Wilson said that most delegates told the same story about severe degradation of coastal ecosystems through direct and indirect human activities.

Although most governments have appropriate legislation to protect environment, protection is near impossible to enforce as desperately poor people struggle to make a living.

This is particularly evident in the case of coral reef fisheries.

Traditional conservation procedures (associated with control over land tenure) have broken down under the pressures of cultural and economic change and excessive population growth.

Fishermen are using destructive, once-off, techniques such as dynamiting to harvest reef fishes.

The practise is now wide spread in the region, though illegal, and many once productive coral reefs are reduced to barren rubble.

Further and even more widespread damage is being done through excessive clearing for agriculture and cutting of timber in the inland river catchments

causing erosion there and heavy deposition of sediments on reefs in the coastal waters.

Most coral species are unable to cope with fine sediment.

In many places the shore-lines are degrading rapidly through mud deposition from rivers.

Mining of coral for lime production is also a common practice which destroys reefs locally and increases the sediment load of adjacent waters.

Several Asian countries reported that large areas of mangrove were being cut for production of charcoal and replaced by aquaculture ponds.

The adverse effects of this on the traditional adjacent coastal fisheries are beginning to emerge as sedimentation increases and natural ecosystem processes are disturbed.

The meeting adopted the principle that conservation practices should minimise destructive utilisation of marine resources so that they can be harvested on the basis of maximum sustained yield, but acknowledged that short-term needs makes this principle difficult to implement.

Dr Wilson quoted the Indonesian Director General of Forest Protection and Nature Conservation, Professor Rubini, as saying: "Today the major causes of coral reef destruction are rooted in the socio-economic problems of over-population and poverty."

"Indonesia has now 160 million people and at the present rate of increase the population is likely to double in 25 years."

"Areas set aside for conservation must be seen in this context. As the human population grows, there will be increased pressure to develop every piece of land to its maximum."

Dr Wilson said that, in this socio-economic environment, the

intellectual concept of conservation reserves set aside for preservation of genetic diversity was given little credit within the region.

Conservation reserves were generally seen as replenishment areas for adjacent fisheries, or as a protection and Nature Conservation.

Following the meeting Dr Wilson was taken to the new West Bali National Park and Marine Park, as the guest of the Indonesian Directorate of Forest Protection and Nature Conservation.

He said that the Park was outstanding for its scenic and conservation values but he was appalled at the problems facing management.

Migrants from Java (escapees from that island's population pressure) had established several villages along the coastline within the park and the authorities seemed uncertain what to do about it.

He was shown a coral reef which had been destroyed by blasting by "pirate" fishermen from Java and witnessed a group of villagers illegally cutting green trees for firewood in the park.

The Park Manager, Mr Hari Hargardi told him that he couldn't do anything to prevent it unless an alternative source of household fuel could be provided.

Dr Wilson said that these experiences had made him feel more committed than ever to the principle of conservation of coral reefs through a marine parks and reserves system in W.A.

If present trends in the South East Asian region continue, Australian coral reefs may be the only ones remaining in near natural condition in our region by the turn on the century.