

# CALM NEWS

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT October 1989



Premier Peter Dowding talks with National Park Rangers John Wheeler (centre) and Ron Shimmon at Yanchep.

## Facelift for Yanchep . . . PREMIER LAUNCHES PARK PLAN

Yanchep National Park's management plan was launched last month at a special ceremony by Loch McNess.

Premier Peter Dowding officially released the plan against the park's serene lake background amid crowds of holidaying school children.

He also announced that entry to all national parks would be free during the October school holidays.

Calling Yanchep the State's most popular national park, Mr Dowding said it provided a valuable boost to tourism in this State.

Of the quarter of a million visitors each year, he said 34 per cent were tourists from interstate or overseas.

Mr Dowding said the doubling of the park's area would provide a valuable buffer between urban development and the park's natural beauty. (The park covers 2799ha).

Part of the Government's \$5 million parks improvement plan would be used to upgrade the recreational facilities, gardens and car-parks so the park could remain a focus for family outings and tourists.

Mr Dowding said a hard decision for those involved in the plan was the future of the koala population.

He said a new enclosure would be built well away from the one containing the infected animals and disease-free animals would be sought from the Eastern States.

CALM would seek to employ a qualified person to provide long term care for

the koalas and their feed stock.

Mr Dowding said that in generations to come Yanchep could be producing koala offspring that could be exported back to the Eastern States and overseas.

He also announced that a survey would be under-

taken into the possibility of opening two additional caves — Cabaret and Yonderup — to the public.

Mr Dowding said the management plan ensured the balance had been struck between conservation and responsible use by the public.

## Plan addresses issues, concerns

The Yanchep National Park Management Plan addresses many recreational and conservation issues.

The park differs from other national parks because of the developed nature of the recreation area. The high number of visitors, the number of staff required and the high costs of management produce a number of management issues, both problems and opportunities.

Aspects of the management of natural resources include:

- \* the encouragement of a study of the inter-relationships between the ground water and the park's caves and wetlands (in view of proposed extraction of ground water from the Gnarang Mound by the Water Authority).

- \* the continued monitoring and surveying of rare and restricted flora and fauna.

- \* development of opportunities for learning about and appreciation of the fauna of the park, for example the establishment of view-

ing hides and guided interpretive walks.

- \* and the instigation of research and monitoring of the wetlands, including the ecological role of *Typha orientalis* and the breeding habits on Loch McNess.

Management aspects for visitors include:

- \* the redesign of the vehicle circulation system including relocation of some stretches of road and upgrading of others producing a two-way loop road.

- \* provision of a scenic drive.

- \* improvement of the entrance to the recreation area

- \* the removal of some buildings and a change in the function of others.

- \* the leasing out of a number of facilities in the park.

- \* installation of an automatic ticket machine at the entrance and development of an effective sign system.

- \* and provision of more nature trails.

CALM's planning team for the management plan were Vanessa Smith (coordinator), Alan Briggs, Terry Hales and Ian Herford with assistance from Kate Orr.

## HERBICIDE TASK FORCE

Following recent public controversy about the use of herbicides by CALM the department has set up a small taskforce — led by Dr Frank McKinnell — to examine all aspects of use of herbicides in operations.

At its first meeting, the taskforce decided it was necessary to widen the scope of its work to cover all pesticides (which includes both herbicides and insecticides).

The taskforce brief is to review current rules and guidelines on approvals, purchase, storage, application and monitoring of pesticides, then develop a comprehensive new policy on pesticide use that will in-

clude consideration of health and environmental impacts as well as public relations aspects.

The taskforce is aware that many staff are concerned about our use of pesticides, so it has arranged for a series of seminars to inform staff and their families on all aspects of pesticide use — why we use them, what we use, health aspects and environmental impacts.

The seminars will be held at Kelmscott, Bunbury and Manjimup during November.

Tom Wood and Jim Edwards are currently checking compliance of districts with established Departmental procedures for pesticide use.

The taskforce has also circulated a questionnaire to a selected group of staff to obtain data on level of training, ease of access to information about chemicals and any other matters of concern to staff.

It will also hold discussions with a wide range of people within CALM as well as selected groups outside the department.

Anyone who has particular matters they would like drawn to the attention of the taskforce is encouraged to contact Frank McKinnell direct.

In their review of procedures for the use of pesti-

cides, the taskforce has been made aware of some deficiencies in our equipment at some centres.

A programme of standardisation of equipment and improvement of some commonly-used items is likely to be an early outcome of the review.

It is hoped the outcome of this initiative will be improved equipment, a better job done in the field and greater satisfaction by employees that they are on top of the problem.

The taskforce will also consider ways of avoiding unnecessary controversy over pesticide use.

## Survey turns up surprise

That there is nothing new to be discovered maybe true . . . but nature keeps on turning up the unexpected.

Take the king skink, for example.

Field guides indicate that this reptile's distribution covers the south-west of WA: north to Hutt River, east to Duke of New Orleans Bay and inland to Gingin, Tutanning and Jerramungup.

It is also found on offshore islands

from the Archipelago of the Recherche with its most northern distribution the Abrolhos Islands.

This recent discovery highlights the value of biological surveys in upgrading field guides.

CALM zoologist Keith Morris recently trapped what appears to be a king skink on Three Bay Island in Freycinet Estuary at Shark Bay — some 300km north of the Abrolhos.

The skink found in Keith's trap has all the characteristics of the southern species, with the 'give

away' small white spots on its black back that often join up to make dashes.

Keith can also testify to another trait: its bite.

An animal found dead on the beach at Three Bay Island and believed to be a king skink has been brought to Perth for positive identification by the museum.

After that it will be back to the printers to amend the field guide. (See pages 4-5 for Shark Bay survey.)

• Photograph courtesy The West Australian.





## FROM MY DESK

The period when I commenced work at the Public Service coincided with the boom in State revenues. They were halcyon days. Frankly, provided any request was reasonable, I was able to obtain abundant resources for my research programme. I confess also to not keeping a very thorough handle on the money that was spent, and in particular I don't think I ever filled out a journal sheet accurately.

Those days are gone. Governments throughout Australia, regardless of political affiliation, have had to reduce public expenditure. Public accountability also is a number one priority (as it should have been from the very beginning). This means that in addition to having a severe constraint on the funds available to do the work that is required, we also must keep a close check on how the money is spent and in the case of CALM, we must maximise our revenue.

To do this efficiently we must have a proper accounting system. Currently CALM, along with all other Departments, is introducing programme budgeting. This means simply that each programme or project that we do will be budgeted for independently. The system will have tremendous advantages to everybody in the Department. It will allow a fairer allocation of funds to competing areas and provide a mechanism to measure our performance. We will be able to segregate different categories of work so that where we are operating on a commercial basis, we will be able to determine if we are making a profit or a loss. The principles apply to non commercial areas as well, because even when we are not in the business of making money for a particular activity we will be able to accurately determine the cost of providing that service.

New computer technology will make this task easier and will enable feedback to each management unit. But the key to making the system work is the accuracy of the data that is fed into the system.

As noted above, I confess to being cavalier to filling in journal sheets in the past and I suspect those journal sheets were of no use to man or beast anyway. But the time allocation sheets that you have been asked to fill out now are of critical importance to our financial management system. Please take the time and effort to fill them out accurately.

Our ability to manage our finances successfully is critical to CALM's future. Please give all the assistance you can to Alex Errington and our new Finance Manager, John Byrne, to make the new financial management system work.

— SYD SHEA  
EXECUTIVE DIRECTOR

If you've driven a CALM vehicle in recent months you would have certainly noticed the introduction of a new Running Sheet Book (clm 373).

The more compact and user-friendly clm 373 is part of a complete revamp to the Vehicle and Plant Management System (V.P.M.S.).

The implementation of the initial V.P.M.S. was completed in February 1985. While producing relatively more accurate and timely information than the original Remington Data Saab D12 Accounting machines, it still lacked the qualities of a user-friendly, cost-efficient and effective management tool.

More specifically, the

## Vehicle running sheet book is streamlined

running costs originally had to be firstly transposed from the Vehicle Running sheets to the Fortnightly Return of Operating Costs (CLM 466), manually apportioned to the various General Ledger jobs and then individually and separately input to the General Ledger and V.P.M.S.

All these manual operations, together with the batch processing of data, led to duplication of effort, data redundancy and lack of data integrity.

In response to these deficiencies a committee was set

up with staff from Computer Services, Engineering Services and Financial Systems. This led to significant changes to the V.P.M.S. to produce what can safely be described as a state-of-the-art fleet management system providing benefits to users as well as management.

The completely revamped V.P.M.S. processes information for a fleet of more than 800 vehicles throughout the state.

Some of the most important features of the system are: on-line processing with

transactions being input from source documents; facility for each cost centre to input their data, therefore achieving decentralisation; production of information on all costs associated with the running and maintenance of the department's fleet; automatic production of Fuel Consumption Analysis report, Fuel Franchise Levy and Diesel Fuel Return which were previously manually prepared; storage of current, as well as historical data; automatic chargeback to cost centres of total vehicle costs; and

ease of operation due to user-friendliness.

Above all, the most remarkable feature of the V.P.M.S. lies in the fact that it interfaces with the General Ledger and Wages system. This means input to either system updates both the General Ledger and plant system simultaneously. Likewise, all workshop wages are also updated in both the plant and wages systems simultaneously.

The new V.P.M.S. has been in operation since March 1989 and from all reports has been well accepted by all users across the department and credit must here be given to all the field staff for their support.

— FINANCIAL  
SYSTEMS SECTION

# Diamond celebrations

## ADVENTURE TRAIL NAMED

Manjimup's Diamond Tree Forest turned 50 years old last month, CALM celebrated the occasion with a birthday party and naming of an adventure trail.

Local preschoolers and their mothers joined in the celebrations south of Manjimup.

Southern Forest Region's regional manager Alan Walker and CALM general manager Roger Underwood addressed the crowd. Roger said the Diamond Tree Forest was a living example of what CALM was trying to do in forestry management in WA.

He then introduced Pemberton tree feller Jim Fox, after whom the adventure trail through the forest had been named.

He described Mr Fox as one of the district's pioneers and said he had a close association with the forest.

Mr Fox talked about the history of the forest which

he worked in about 50 years ago and then cut the ribbon to open the Jim Fox Adventure Trail.

### DIAMOND TREE

The first karri fire lookout tower in the State was the Big Tree west of Manjimup, opened in 1938.

By 1952 there were eight similar tree towers.

The Diamond Tree Tower was built in 1941 to take the place of the Big Tree which closed in the same year.

The tower stands 51m above the ground and differs from other lookout towers as it is supported by the tree's branches.

The tree was first "manned" in 1942 on high fire hazard days by a typist from the Forests Department office in Manjimup.

Before it closed in 1978, smoke from fires could be detected as far away as the Yeagarup Dunes, some 40km to the south-west.



Tim Foley shows some pre-schoolers around the Jim Fox Adventure Trail.



Jim Fox



Alan Walker

## WHAT'S NEW

The following documents have been recently produced by Public Affairs and are available from Stores Branch, Como.

0023 Mundaring Bushwalks.

0683 Dryandra State Forest.

0139 John Forrest National Park.

0700 Boyinaboat Reef Underwater Nature Trail (reprint).

0722 Pemberton Bush Walks.

0727 The Chuditch.

0721 CALM in the Metropolitan Area.

0719 Moora Wildflower Drive (RCC Penny Hussey).

0459 Cape Range National Park Charles Knife / Shothole Walk Trail.

0724 Nuytsia — Vol. 7 No. 1 1989.

0728 WURC News — Furniture from Forests.

0723 WURC Report No. 10 Roadside Manual (RCC Penny Hussey).

0730 CALM Briefing Paper 4/89 — Workers' Compensation.

0572 Information Sheet 3/87 Tree Planters Guide (Reprint).

## Conference acknowledges crisis

Rotorua, New Zealand was the venue for the 13th Commonwealth Forestry Conference recently.

Executive Director Dr Syd Shea attended the conference which attracted more than 220 delegates from 33 countries its theme being "Forestry: A Multiple-use Enterprise".

New Zealand Forestry Minister Peter Tapsell stated in the closing address that the rate of deforestation in most tropical countries of the Commonwealth was increasing and was

more serious than previously predicted and that Commonwealth foresters were playing a key role in tackling this global crisis.

Mr Tapsell said the Tropical Forestry Action Plan, initiated by foresters four years ago, addressed the fundamental social, technical and institutional causes of tropical deforestation.

In addition to reversing the crisis of poverty facing local communities in tropical countries, the application of innovative and socially sensitive forestry practices would ensure the

maintenance of biological diversity and reduce the Greenhouse Effect.

The Conference unanimously endorsed a proposal to ask the Commonwealth Heads of Government, who will be meeting in Malaysia this month, to initiate Commonwealth action on the Tropical Forestry Action Plan and the Greenhouse Effect.

Robin Cutler, the NZ Chairman of the Conference and Secretary of the Ministry of Forestry said a constant theme throughout the Conference was the im-

portance of community participation in forest management.

The conference highlighted the exciting initiatives in both technical and social forestry that have the potential to reverse the increasing rate of forest destruction.

Commercial logging is not a major cause of forest degradation compared to agricultural clearing, forest grazing and wildfires.

Delegates were happy to hear how the introduction of agroforestry, new tree species and site preparation

techniques had rehabilitated degraded forests and provided for the essential needs of the local communities.

The conference concluded that sustainably managed forests could become biological factories providing a multitude of products from rare pharmaceutical chemicals to timber, while at the same time ensuring the conservation of plant and animal species.

At the invitation of the Malaysian Government, the 14th Commonwealth Forestry Conference will be held in Malaysia in 1993.

## LYAL GUTHRIE RETIRES

After 30 years' service, Lyal Guthrie has retired from CALM.

Lyal, who joined the then Forests Department in 1959, was first employed by Alan Hill as a forest workman.

After five years he progressed to grader driver, where he remained for about five years.

During this time he spent

many weeks with Jock Smart pegging roads in Lewana and Folly pine plantations.

In 1969, Lyal obtained his mechanics ticket and began work in the Nannup District Workshop, where he stayed for 20 years.

Lyal developed a love of tinkering with chainsaws and has become a self-taught expert.

His skills in diagnosing problems, repairs and in tuning chainsaws will be sorely missed.

Although Lyal is retiring from CALM, he will be kept busy on his Hereford cattle farm (one of the original farms from the Group Settlement days), along with a bit of fishing and perhaps even repairing a chainsaw or two in his spare time.



Lyal Guthrie (right) and Keith Pears.

## 1991 Churchill Fellowships for overseas study

The Churchill Trust invites applications from Australians, of 18 years and over from all walks of life who wish to be considered for a Churchill Fellowship to undertake, during 1991, an overseas study project that will enhance their usefulness to the Australian community.

No prescribed qualifications are required, merit being the primary test, whether based on past achievements or demonstrated ability for future achievement.

Fellowships are awarded annually to those who have already established themselves in their calling. They are not awarded for the purpose of obtaining higher academic or formal qualifications.

Details may be obtained by sending a self addressed stamped envelope 12 x 24 cms to:

The Winston Churchill Memorial Trust  
218 Northbourne Ave, Braddon,  
ACT 2601.

Completed application forms and reports from three referees must be submitted by Wednesday 28 February 1990.





## Bushfire research experiments

During the next few months CALM will host visiting scientists engaged in bushfire research at both national and international level.

A team from the CSIRO Plant Industry Division will participate in the fire research programme underway in the Stirling Range National Park.

Team members are Malcolm Gill, Ed Pook and Peter Moore.

They will join forces with CALM staff from Manjimup Research Centre and

Albany District to conduct a series of experimental burns with the aim of understanding how shrubland fires behave under different fuel and weather conditions.

Detailed measurements of fire shape and spread rate, flame characteristics and intensity made during each burn will provide the basis for a fire behaviour guide applicable to mallee-heath fuel types.

While in the south-west, the CSIRO researchers will also spend time with other Manjimup Research staff

reviewing the results of the recently-completed biological survey of the Walpole-Nornalup National Park.

Bushfire research will take on an international perspective later this year with a visit by Marty Alexander from the Canadian Forest Service.

Marty has more than 10 years' experience researching the behaviour of fires in conifer forests in Canada and the US.

He is in Australia for two years to undertake a Ph.D study of fire behaviour in

exotic pine plantations and will be based at the ANU in Canberra.

During his time in WA, Marty will inspect plantation fire management operations, review existing experimental data and meet staff engaged in fire protection.

Further information about the visits by either Malcolm Gill or Marty Alexander is available from Lachie McCaw at the Manjimup Research Centre on (097) 71 1988.

# SOUTH COAST FIELD TRIP TO NULLARBOR

An extended field trip to the Southern Nullarbor section of the South Coast Region was recently made by regional manager John Watson, planning officer Ian Herford, Esperance district manager Klaus Tiedemann and Esperance/Dundas ranger Phil Gray.

The group travelled from Esperance to Eyre via Norseman, paying visits to the Cocklebidy group of caves in the Nuytsland Nature Reserve.

This included a check on the surface doline of Pannikan Plain Cave, scene of last December's freak flood which trapped a party of cave divers and film crew underground.

The night was spent at the RAOU Bird Observatory at Eyre.

Issues affecting Eyre were discussed and local inspections undertaken next morning.

The following day the party travelled from Eyre to Madura and spent the rest of the day with the managers of Moonera and Madura stations discussing various issues and inspecting the surface doline of several major cave systems on Madura Station.

On day three similar dis-

cussions were held with the manager of Mundrabilla Station. The party also inspected the Chowilla — Abrakurrie group of caves, Weebubbe Cave near Eucla and Eucla National Park.

The next day the group travelled from Mundrabilla to Balladonia via the Baxter Cliffs section of Nuytsland Nature Reserve and Toolinna Cove. A brief visit was also made to Balladonia Station.

On the final day the group travelled to Mt Ragged in Cape Arid National Park to check foot-path condition and collect visitor data from the summit log book.

The group returned to Esperance via Deralinya and Parmanago Road as roads to the south of Mt Ragged were impassable due to flooding.

The field trip enabled group members to gain a good insight into some of the concerns of the pastoralists with regard to increasing cave use and the management of dingos.

CALM will increase its management presence on the Nullarbor augmenting existing patrols by the Esperance district wildlife officer with regular visits by the Esperance/Dundas ranger and other staff.

— JOHN WATSON



By

TANYIA MAXTED

## Whale's struggle for life fails

Perhaps it was a no-win situation from the start; a day old pilot whale orphan stranded on a beach.

Certainly the media gave the calf a slim chance of survival, although, as the West Australian reported, the mercy dash by CALM's supervising wildlife officer Doug Coughran may have saved her life.

Doug assessed the calf's condition and when the rest of the pod could not be located (by helicopter, courtesy of Channel Seven),

successfully relocated the 1.8m mammal by car to Atlantis Marine Park.

Continuously walked and supported in a small pool, the calf suckled from a bottle and teat containing a cream and milk powder mixture. Her condition seemed stable, then deteriorated, then stabilised again.

CALM's marine mam-

mal consultant Nick Gales told Perth viewers on the 6pm news: "Where there's life there's hope" and volunteers continued to flood onto the park's roster to walk and feed the baby whale.

The stranding was one of two whale incidents involving CALM wildlife officers over the long weekend.

Doug — who was supposed to be on leave — had also been called out on the Sunday to search for an injured humpback whale that had collided with a Rottneest ferry.

The whale was not found. A meeting between chief wildlife officer Dave Mell and representatives from ferry company Boat

Torque and the Department of Marine and Harbours managed to change the course of ferries during the whale season to avoid another collision.

Meanwhile at Atlantis, the baby calf began refusing feeds and at 9.45am on Friday she died — five days after being stranded.

She simply stopped breathing after feeding erratically for 18 to 24 hours.

The calf's body was taken to Murdoch University for an autopsy.

On Channel Seven that night the baby calf led the news — the orphan whale that had "won the hearts" of Perth people had lost her battle for life.

## RARE ORCHID POPULATION FOUND

A new population of the rare Purdie's donkey orchid has been discovered by CALM forester Les Robson.

Nearly 600 flowering plants were recently found after a routine autumn burn on an A class reserve east of Peel Inlet.

It was previously only known to exist in seven sites

on the Swan Coastal Plain at Pinjarra, Armadale, Canning Vale, Harvey and Anketell.

The Pinjarra population occurs on an area of crown land, soon to be declared a nature reserve to protect the orchid and other plant species.

A CALM research pro-

gram is presently underway on the Canning Vale population, which numbers about 1300.

Developers of the two sites at Canning Vale where the orchid grows have provided funds for a four year research program to be run by CALM.

A wildlife management program is being developed to ensure the orchid's long term survival.

Under this, research may assist in relocating the orchid to a suitable site. At the same time it will be propagated at Kings Park and Botanic Gardens and

the material may also be used to establish a new population.

Purdie's donkey orchid flowers through September to early November, peaking in mid-late October.

It only flowers in spring following a summer or early autumn burn.



RAOU Warden, Ian Ashton and CALM Esperance District Manager, Klaus Tiedemann, near Eyre Bird Observatory, Nuytsland Nature Reserve, South Coast Region. Photo: John Watson.

## Mundaring kept busy

CALM'S Mundaring office was a hive of activity last month with Rally Australia and the Bibbulmun Walk.

Both events coincided on Saturday, September 16.

Eleven stages of the rally were held within the district that day — five within the Forest Disease Risk area.

District manager Peter Keppel said his district's responsibility was to ensure the rally was performed within CALM's environmental policies and guidelines. This meant road selec-

tion, upgrading, and reconnaissance and on race days, the washdown of 600 vehicles — 390 on race day.

Rally vehicles had to be washed down in a maximum time of two minutes, as this was the maximum time allotted to competitors.

Resources used were: three officers, 14 forest workmen, one mechanic, nine high pressure-low volume pumps, two water tankers, three sets of portable vehicle ramps and two sets of floodlights and generators.

The rally used the Mundaring Weir headquarters and Fred Jacoby Park as a spectator area for four race stages.

This saw about 2000 vehicles flood into the settlement and park area in the morning and late afternoon (total about 4000 vehicles).

To park these vehicles, it was necessary to open up the large grass areas in Jacoby Park for parking, with little damage to vegetation.

To assist in rally organisation, the district office was used as an outpost to rally

headquarters and a results collection and dissemination centre.

Six staff members were involved in spectator control and overall co-ordination of rally activities.

On the same day the 10th anniversary Bibbulmun Walk began at Kalamunda. The walkers spent the weekend in Mundaring district, assisted by Len Talbot and in radio contact with district headquarters.

Len presented an interesting talk to the walkers about local history, the landscape and forest.



Rally Australia vehicles are washed down after leaving dieback risk areas.





ABOVE: A day's work is never finished... Research Scientist Keith Morris doing the paperwork by gaslight.



Dragon Lizards were found in abundance on Three-Bay Island.



Rare and endangered - the sub species of the Stokes Skink found on Baudin Island

# SHARK BAY - NATURE'S GIFT TO SCIENCE . . .

## Shark Bay is under the microscope.

Scientists are probing everything that flies, swims, crawls or grows to determine the extent of the area's natural features.

It's part of the Shark Bay Region Plan which aims to conserve the unique flora and fauna while enabling the area's economic development to continue.

For the scientist Shark Bay continues to turn up the unexpected.

The King Skink, whose previous known range ended at the Abrothos Islands, has turned up in zoologist Keith Morris's trap on Three Bay Island in the Freycinet Estuary.

And further north on Baudin Island a rare sub species of the Stokes Skink has been found to be thriving.

A recent survey of the small islands in Freycinet Inlet - the first ever to be undertaken - has extended the known range of many other well-known lizards.

The islands have also shown to be important bird breeding sites. Ospreys, Caspian Terns, Bridled Terns, Crested Terns, Pied Oyster Catchers, Pacific Gulls, Silver Gulls, and Wedge-tail Shearwaters were breeding on the islands.

The Kestral, Zebra Finch, Welcome Swallow, Rock Parrot and Quail were also sighted.

But the news is not all good. The common house mouse is established on Three Bay Island and is competing against native species for food.

It is even a threat to some of the smaller geckoes which were half eaten when found in traps with the mouse.

Further north, Bernier and Dorre Islands have been found to be the home of four native mammals - the Western Barred Bandicoot, the Banded Hare Wallaby, the Burrowing Bettong and the Shark Bay Mouse - which are unique to the mainland.

And the Reticulated Hare Wallaby survives only in a small area of the Tanami Desert besides at Shark Bay.

CALM botanist Jenni Alford said she is not surprised by the diversity of animals in the area.

She said the overlap of two of the State's main vegetation types - the

Story: RICHARD GRANT  
Pictures:  
The West Australian

wattle dominated vegetation of the north, and the eucalypts of the south - provide habitat and food for a diverse range of animals.

In all 10 species of mammals, some rare and endangered, 98 species of reptiles and more than 100 species of birds have been recorded in the area.

One of the strangest and most recent is the Sathill frog which lies buried in the sand dunes of Edle Land. It emerges to feed only in the rain or when there is heavy night dew.

Marine biologists are proposing a marine park to cover part of the water around the islands. This will protect the human-dolphin relationship at Monkey Mia, as well as the social structure, habitat and home range of the pod of some 300 dolphins known to be in the area.

A marine park will also protect Shark Bay's 10,000 dugongs, believed

to be one of the largest and most secure populations in the world.

The herbivorous mammals' feeding grounds, the seagrass banks which cover about 4000 square kilometres of the bay's seabed and are the largest in the world, are vital to the area's ecosystem.

Large populations of Green and Loggerhead turtles that nest on the remote northern beaches of Peron Peninsula and Dirk Hartog Island also feed on the grasses.

A host of smaller animals - like molluscs, crustaceans and invertebrates - find food and shelter in the seagrass.

It has also been found that the levels of saline water in Hamelin Pool where the largest number of stromatolites in the world are found.

These ancient calcareous structures that scientists say can tell us about the beginning of life on earth depend upon the unusual environmental conditions that exist in Hamelin Pool.



Technical Officer Jenni Alford ... collecting samples and getting a suntan.



ABOVE: Three-Bay Island's resident Osprey protects its nest.

LEFT: CALM's Bob Bromilow caught these Dragon Lizards in a pit trap.



Keith Morris and Bob Bromilow recover a net used to trap reptiles.



District Manager Ron Shepherd examines the carcass of a juvenile dolphin found on Faure Island.



Keith Morris can't hide his delight in finding what is believed to be a King Skink on Three-Bay Island.



## Bob by name, Kojak by fame

Move over, Kojak, here comes Bob.

You may have seen the recent Daily News article featuring Record Branch's Bob Mitchell contesting the final of the Mt Lawley consistency singles event against former international bowler Steve Sroy.

Bob played well but was overwhelmed by an awesome display of percentage bowls by Sroy who won 150-92.

Under the concept used in the event, points were awarded to the four closest bowls on each end — four for the first, three for the second, two for the third and one for the fourth.

A common sight at his local bowling club, Melville, Bob's lollipop sucking scored him the nick-name "Theo Kokak".

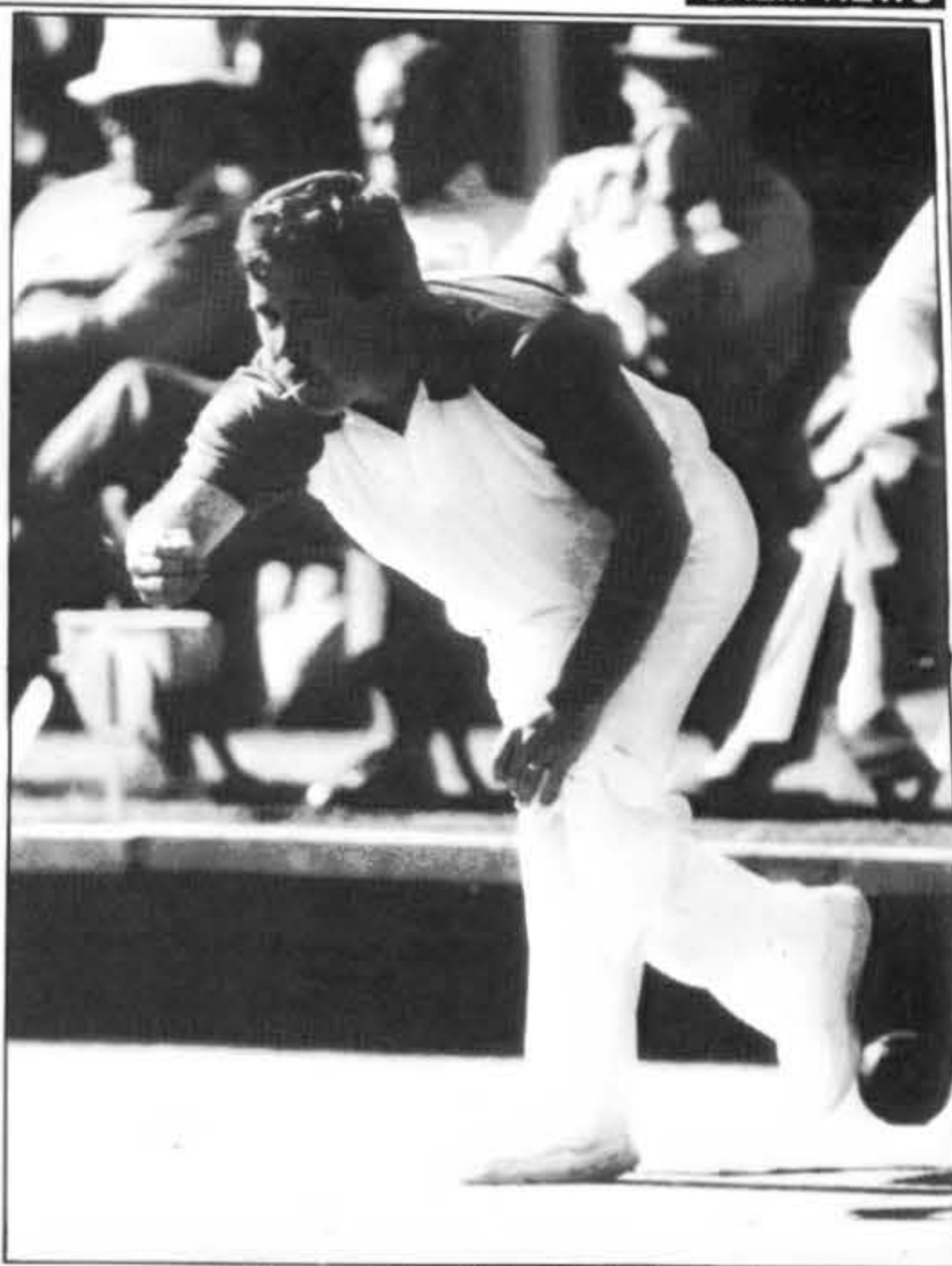
The lollipops replace the tar sticks that he once consistently consumed. In 15 years of bowling, Bob has

notched up an impressive list of achievements including being selected in the State squad and coming an equal third in the State triples.

Even his 15-year-old son, David, has a set of bowls and occasionally, has a roll-up with his dad.

Another oar in the water — so to speak — for Bob is his dragon boat racing in which he recently competed in numerous events, overseas.

Well done, Bob  
— JAMIE SMITH.



Lollipop sucking Bob Mitchell in action.

## JARRAH INVENTORY A TECHNOLOGY LEADER

### TURTLE SOLUTION FOUND

A fishy solution has been found for the eggs of the endangered Western Swamp Turtle.

For the eggs to survive, they have to be kept at a constant temperature and not moved for three months.

This proved to be a problem for the Perth Zoo, as the critical time of a pregnant turtle ready to give birth approached.

After a broadcast appeal on 6WF and Eagle Radio failed to come up with a suitable solution for incubating the eggs, things became desperate until George Kailis of Kailis Fish Markets offered to donate insulating panels from the old fish markets.

### Constant

These panels will enable the eggs to be kept at a constant temperature.

There are only about 40 Western Swamp Turtles left in the world.

CALM, Perth Zoo and Dr Gerald Kuchling, researcher at the University of Western Australia, with financial support from the World Wildlife Fund and Commonwealth Government, are working together to ensure the Western Swamp Turtle does not become extinct.

CALM's new jarrah inventory using large scale aerial photography is as advanced as any in North America," claims Paul Biggs.

As officer-in-charge of Ground and Air Surveys at CALM's Bunbury Inventory Branch, Paul recently returned from five weeks in Canada and the USA where he investigated the operational use of large-scale aerial photography for resource estimation.

He visited three organisations in Canada that use twin camera booms similar to those used in WA — the difference being that Canadians have theirs mounted longitudinally instead of transversely on helicopters.

This method offers advantages in aerodynamics but may cause problems with photo measurement if

the cameras do not fire simultaneously.

Four organisations have used a single camera system, backed-up with a laser or radar altimeter and a tip/tilt recorder.

This arrangement can be used in a fixed-wing aircraft that is cheaper than a helicopter and adaptable to a wide range of scales and flying heights.

The instruments are expensive and require a high degree of skill to operate.

CALM's twin camera traverse boom systems avoids the problem of camera synchronisation and complex instrumentation and our satellite navigation using a GPS receiver is a first for this type of photography.

All the organisations Paul visited expressed interest in CALM's method of operation.

CALM's integration of inventory data with land information using the Geographic Information System (GIS) is a further feather in CALM's cap.

Paul also presented a paper to a symposium "State of the Art Methodology of Forest Inventory" in New York State.

The paper outlined the major achievements of the jarrah inventory: GPS navigation, camera modifications, wood quality assessment and geographically linked inventory data.

The trip to Canada was part of Paul's Ph.D research with the University of Melbourne and was funded from his Forestry Post Graduate Research Award and a grant from the Maxwell Jacobs Fund.

## Flora in spotlight

The south-west was the setting for the recent filming of a television program on Australia's flora.

Entitled "Under Southern Skies", the 13 part series will take a positive look at the beauty of Australian flora examining various ecosystems and people's use of flora in such things as medicines, native bush tucker, agriculture, horticulture and even suburban gardens.

Australia's forests, alpine environments and the red centre are spotlighted and the series introduces people involved with each subject, exploring the many natural phenomena of the plant world.

While in WA, the crew filmed in Fremantle where local timber has been crafted into fine works of art including musical instruments.

Other segments included the karri timber industry at Manjimup, the tingle wood

By

KEN ATKINS

forest at Walpole-Nornalup National Park and the Small Tree Nursery at Munglipup.

The program will present foreign audiences with a fascinating insight into the uniqueness of Australian flora and will make local audiences aware of the vast natural beauty available on their doorstep.

A second Japanese film crew filmed segments on poison bushes and salinity at Lake Taarblin and around Lake Toolibin at Highbury, south of Narrogin, for a documentary series to be shown in Japan.

After leaving Narrogin the crew looked at sand plain country and natural salt lakes around Lake Grace before heading for the Fitzgerald River National Park.

The series will screen here in a year's time.



## Timber production course at Collie

With jarrah forests and pine plantations close by, Collie was the ideal location for a timber production training course held during September.

Forty young CALM officers involved in timber production were given an update on the State Timber Strategy, Silviculture of both Hardwood and Softwood Forests, Log Products and Specifications and LOIS (the computer system that handles the commercial side of Timber Production).

The course was held over three days at the Collie Federated School of Mines and split into three half days of theory and three half days of practical exercises in surrounding forests, plantations and at the Worsley Pole Dump.

Course co-ordinator John Clarke said the current State harvest of soft and hard wood was 1.9 million cubic metres of logs per year from State forest and pine plantations.

"The revenue generated from this production is currently around \$70 million per year," he said "so we are training our officers to harvest the forest in the most efficient way possible to sustain the yield."

The schools were also joined by Fred Lindberg, Ernie Bechelli and John Maddams from WA Forest Industries Training Council (WAFITC).

Fred and Ernie demonstrated, very impressively, some of the latest techniques in safe tree felling.

This is the first formal course on the subject of Timber Production for CALM officers and was brought about by the huge changes in the way forest production is managed following the release of the Timber Strategy in December 1987.

Participants attended from all forest regions and districts as well as CALM's Albany office.

## ARCHIVES REVEALS SEED HISTORY

Earlier this year the Kalgoorlie Regional office received an unusual request from the Premier's office.

Peter Dowling was due to speak in Israel to mark the anniversary of a major reforestation exercise using many Australian eucalypts — mainly WA species from the Goldfields — and details were required to prepare his speech.

Brian Paddick from the Premier's Department had worked on the Kalgoorlie Miner in the 1950s and 60s and recalled running stories on huge amounts of seed being collected for export.

He contacted former Kalgoorlie forester Bill Brennan who was responsible for

most of the seed collection.

Bill contacted CALM's Kalgoorlie office. The request — how much seed of which species was collected by the Forests Department, Kalgoorlie, from 1950-1970 for export to Israel, Morocco and other overseas destinations?

We checked the archives which, apart from dust, contain most of the Department office files since the 1920s.

We located the historical seed collection files and extracted the relevant information. It surprised us all and is of historical interest.

Collection of plant seeds commenced with the establishment of forestry in the

Kalgoorlie's seed collection history — detailing the region's important role in overseas afforestation using eucalypts — has been uncovered by CALM staff. Goldfields regional manager Ian Kealley writes about a piece of WA history which, until recently, was gathering dust in Department archives.

Goldfields.

By 1930 there was an increasing interest in the eucalypts of the arid interior with promotion by the Forests Department and the Forests and Timber Bureau in Canberra.

The 1940s saw the establishment of a forestry nursery in Kalgoorlie growing species from seed collected locally and an increasing supply of seed sent to the Forest Department seed store at Como.

Archive records show that from 1945-57 the

Forests Department exported 112kg of bulk seed and 1205 packets of seed to 48 countries.

Up to 80 separate species were involved. The main areas for export were Morocco (42kg, 44 species), Israel (27kg, 35 species), South Africa (7kg, 50 species), Pakistan and Argentina.

At the same time, seed collection in the Goldfields was increasing.

In 1953 there was a Food and Agriculture Organisation (United Nations) fore-

stry tour which included the Goldfields and resulted in a large increase in demand for seed from Mediterranean countries.

From 1950-1968 the Kalgoorlie office supplied 725kg of seed from 104 species, including 69 eucalypt species and 35 others.

The majority of the seed was collected to satisfy orders from the Forests Research Station at Rabat, Morocco, although exports to other countries continued.

Initial demand in the '50s

was for a range of species — mainly eucalypts.

It eventually settled to include *E.salmonophloia*, *E.brockwayii*, *E.torquata*, *E.salobris*, *E.stricklandii* and to a lesser extent *E.dundasii*, *E.flocktoniae* and *E.woodwardii*.

In some years up to 20 kg of seed from one species was supplied.

As Goldfields eucalypts have fine seed yielding up to 1000 trees per gram, collection was not easy and the potential number of trees supplied enormous.

Seed was extracted from manually collected capsules.

Some collection was made from the woodline cutting areas, others in-

involved locating suitable trees and either falling or pruning to obtain capsules.

Goldfields eucalypts are unique as they are ideally adapted to low rainfall, grow to large sizes and are suitable for arid area reforestation.

These attributes were recognised by early foresters who promoted the species and supplied seed as required.

Interest in Goldfield species for rehabilitation continues today.

CALM officers still collect seed, although some demand is satisfied by commercial collectors and no doubt from overseas plantations.



## CALM NEWS



Contractor Peter Glass (left) and Mike Tagliaferri inspect dead sandalwood pieces.

# Sandalwood is a growing industry

By Mike Tagliaferri

Sandalwood is a shrub with the botanical name of *Santalum spicatum*.

Exported to lucrative Asian markets, it is used in powdered form to make incense sticks for religious ceremonies.

A low profile industry of substantial value, supervising sandalwood operations is an integral part of a CALM officer's duties in the Goldfields region.

Forest officers supervise the field operations of sandalwood contractors over an area that covers 100 million hectares of the State.

Supervision involves extensive bush travel and camping out for lengthy periods, often under adverse conditions.

This travel incorporates other activities such as reserve inspections, extension and advisory work,

seed collection and liaison with other land holders.

Sandalwood harvesting areas are allocated to contractors by CALM officers responsible for regular inspections to ensure contractors comply with the conditions of their sandalwood licence.

At present 2,000 tonnes of sandalwood is exported, 1,800 tonnes from vacant crown land and pastoral leases and 200 tonnes from private property.

Extremely efficient in terms of utilisation, 65 per cent of what is harvested is deadwood.

A recently completed resource assessment, involving officers from Goldfields region and Inventory branch has established an industry life in excess of 30 years.

Employing about 70 people including CALM staff,

contractors and sandalwood company employees, the industry also has spin offs into research projects and the craft wood industry.

Under the Sandalwood Conservation and Research Project (SCARP), \$1 million was allocated to fund the acquisition of viable pastoral leases with sandalwood and ecological conservation values as resources.

This funding included research into the establishment of sandalwood plantations in the wheatbelt and Ord River areas and the appointment of a research officer to collate and publish the results of sandalwood research carried out in the past 15 years.

Involvement in the sandalwood industry for CALM officers in the Goldfields is complemented by being able to view and experience a diverse range of natural environments over a large area of the WA.

## TREE SEMINAR PLANNED

The Australian Institute of Agricultural Science is organising a one-day seminar, "Trees — Everybody Profits."

The aim is not only to highlight the environmental benefits of planting trees, but also to discuss alternative tree crops and to critically examine the potential income benefits for land owners.

Speakers will include Agriculture Department director Norman Halse, Greening Australia National President David Bennett, a representative of the mining industry and officers, from the departments of Agriculture, Conservation and Land Management and the Water Authority.

The seminar will be held

in December at CALM's Training Centre at Como.

Those attending will receive lunch, morning and afternoon teas and a copy of the proceedings.

The seminar is open to everyone interested, but lease register early as places are limited.

To confirm your place call the WA Department of

Agriculture on (09) 368 3711.

Registration of \$25 (\$15 for A.I.A.S. members) made payable to A.I.A.S. may be forwarded to: Mr Peter Arkell, c/- WA Department of Agriculture, Baron Hay Court, South Perth WA 6151.

Fees may be paid on the day.

VISTAT program seeks information on the use and activities of visitors to CALM lands.

The data is collected primarily through traffic counters and observation sheets completed by field staff as they go about their daily duties.

This information is vital if CALM is to make informed decisions on the management of its lands for recreation.

CALM has an obligation to provide recreational opportunities which satisfy public needs while at the same time safeguarding the environment.

VISTAT is now gathering momentum.

To date 84 traffic coun-

ters have been distributed to regions throughout the State.

Neil Taylor of central region has also managed to unearth a number of counters from the early days of the Department and has pressed them into service.

A large amount of information has already been received by the Policy and Extensions Branch from districts throughout the State and the flow is increasing.

Happily the feedback loop has now been completed for much of this data.

Seamus Mullholland from the Policy and Extensions branch has set up a program on an IBM PC which will store and analyse

traffic counter readings.

He has spent the last month tapping in the information received so far and sending back graphs and summary tables to each district.

By now anyone who has sent in traffic count data should have received this information back.

The next goal is for regions to be able to put their information directly into the Department's main-frame computer.

Trevor Morgan, head of Computing Branch, has developed a program to do this and is currently ironing out the bugs from the system and preparing a user manual.

# WEST CAPE HOWE USERS WORKSHOP

More than 60 people attended a "Park Users Workshop" held to discuss West Cape Howe National Park last month.

The workshop, part of the community involvement program for the Draft Management Plan for the park, was held at the Woodbury-Boston Environmental School just outside Albany.

South Coast Region planning officer Ian Herford convened the workshop and was delighted with the response.

"We had people representing 14 different user groups," Ian said "and one of the positive things that came out of the workshop was a greater appreciation on everyone's part of just how many interests need to be considered in the plan."

Opened by South Coast Regional Manager John Watson, the workshop began with short talks and question sessions from group representatives.

This set the scene for a valuable information day that highlighted issues of concern.

Slides were shown and a discussion followed that helped participants focus on major management issues in the park.

Following lunch (Woodbury Boston School), participants broke into six groups to complete two exercises.

Assisting as group leaders were district manager Kelly Gillen, rangers Martin Lloyd and Peter Morris

from the South Coast Region, senior landscape officer Richard Hammond from Recreation, Landscape and Community Education Branch and technical officer Matt Cavana from Planning.

A brainstorming session generated lists of issues requiring consideration.

The six most important issues were prioritised as: (1) dieback; (2) information; (3) fire management; (4) visitor facilities; (5) access provisions; and (6) rehabilitation.

"We expected issues like access, rehabilitation and dieback to be of concern," Ian said "but it's good to see such value placed on information as well."

Each group was given one of the six issues to consider in more detail and to

state the management objective in dealing with it and then develop strategies to achieve the objective.

"I was impressed with the depth of thought and innovation put into the exercise. Group findings were reported to other workshop members and it was pleasing to sense a bond developing between everyone during the day despite the diverse attitudes and opinions present."

Concluding remarks were given by Richard Hammond, who, with Ian Herford and Martin Lloyd make up the West Cape Howe planning team.

The workshop results have been summarized and will be released as a summary document shortly.

The draft plan should be available for public comment early next year.

## Promotional campaign

by Steve Murnane

Following the launch of the final management plan for Yanchep National Park by Premier Dowding on September 29, the Government launched a major two-week promotion campaign for national parks in WA.

The campaign involved TV and newspaper advertisements and general promotions providing a great opportunity to further raise public image of CALM and its staff.

Nowhere in WA is the diversity of our parks more evident than in the south-west which is why well known actor Andrew McFarlane features in several TV commercials extolling the virtues of three of our south-west parks — the Shannon, Lane Poole and Leeuwin-Naturaliste.

The Greenline mentioned in the commercials is a tele-

phone number the public may call for further information on national parks.

Manned by CALM staff, it attracted more than 800 calls from people who were prompted by the commercial.

Having manned the Greenline several times, I was interested to discover that many people had never heard of these parks and were curious to know where they were.

They were all impressed with their beauty and showed keen interest in finding out their whereabouts so they could visit them with their families.

Clearly the advertising worked by raising peoples awareness of places they never knew existed, places they wanted to find out about and visit.

There are 54 national parks in WA each with its own special plants and animals and its own impressive features and individual character.

## VISITOR INFORMATION STATISTICS

After a trial period in Head Office it will be ready for use.

Although analysis to date has only covered traffic data, the VISTAT concept encompasses all types of information describing visitor use of CALM lands, entry fee and camping fees, commercial activities and so on.

It is envisaged that analysis will be extended to these areas in the near future.

If you have such data sitting in a corner of your office which no one has showed interest in since it was collected, give Seamus a call.



Pemberton's Colin Hunter recording traffic data at Gloucester Tree.

## Pow camp history under scrutiny

It's difficult to imagine that the Second World War had any impact on the peaceful forest around Dwellingup.

Until recently, few people knew of the existence of the Murrinup Prisoner of War Camp, only four kilometres west of the town.

The camp was opened in 1943, held up to 1200 Italian and German prisoners and covered some 15ha of forest near the former milltown of Murrinup which was destroyed by fire in 1961.

The camp provided rural workers and firewood cutters for many Government agencies, including the Forests Department and helped to alleviate the severe labour shortage during the war.

### Escapes

It was well guarded and, although some escapes did occur, camp rules were fairly stringent until the war ended in 1945. By August 1946 all prisoners had been repatriated and the camp dismantled.

CALM Dwellingup has rekindled interest in the camp through the local media and work is currently underway to uncover this remnant of the past.

Although now overgrown, many foundations and other features are recognisable. When uncovered, they are identified by perusing old army maps and documents. Eventually, signposts and information shelters will be erected.

Once completed, this historical walktrail should provide an interesting and unusual attraction for visitors to Dwellingup.





Director of Forests Peter Hewett and Colliie assistant district forest officer Drew Griffiths proudly show their Bibbulmun plaques.

The Bibbulmun Walk '89 — a 622 kilometre walk along the Bibbulmun Track from Kalamunda to Walpole organised by CALM — finished earlier this month. Thirty-five people began the Walk from Perth on September 16 — their numbers swelling to 46 as they walked into Walpole on October 16.

The event, coordinated by Colliie assistant district forest officer Drew Griffiths, was run as a package holiday with transport, accommodation and food contracted to a private tour operator.

Many CALM staff contributed to the Walk's success as it passed through their districts along the way.

At the presentation of walkers' certificates, both Drew and Director of Forests Peter Hewett were presented with Valwood plaques for their contribution to the Walk over the past 10 years, Peter organising the first event in 1979.

TANYIA MAXTED joined the Walk on the last 18 kilometres through the Walpole Nornalup National Park.

# Triumphant end to Bibbulmun walk

It's nearly 8am as the bus pulls over and walkers — most in their 50's and 60's — clamber out and begin to stretch and check their packs.

One woman greets me and tells me how wonderful the walk has been, despite the rain encountered on most days.

This day is perfect, however, and I'm one of two new walkers to complete the last leg.

Drew Griffiths and other CALM staff have been fantastic, I'm told. As other walkers approach me I'm welcomed and told of similar praise for CALM. (I then reveal my identity to those who ask where I heard about the walk ... did I really drive from Perth just to walk the last day?).

Walpole assistant district forest officer Andrew Morton welcomes everyone and reviews the day's route. Drew is on hand again and the walkers cheer as we leave the "support crew" and the walk begins.

The first hour is to be walked in silence. As I pass through the two human counters (who record our numbers at each start), the walkers in front have filed

off into the bush, some carrying sticks adorned with coloured streamers.

The track widens and suddenly the brightness and glare is lost as the karri crowns join overhead, the air a little cooler.

The carved message stick that has been carried from Kalamunda is passed along and a fellow walker explains that it was carved by Ken Colbung and will be presented to the Manjimup Shire on our arrival at Walpole, along with a commemorative plaque.

They don't dawdle, these Bibbulmun walkers. The average age is 58 — the oldest walker is 72, the youngest 32.

There are a few rest points along the way as everyone snacks and drinks a little of their water ... some catching a few minutes sleep.

We pass Nuyts Wilderness and stop for a moment to inspect the new swinging bridge and information stand.

At Tinglewood — half way up the longest hill — we catch sight of the Nornalup Inlet and the sea. Then it's back into the shade of the tingle and karri trees as we turn right to

head into national park again.

Along the track Drew has marked (by drawing with a stick in the sand) the number of kilometres left to walk.

In one place he writes that this is the last hill — but after negotiating a couple more no one will believe him.

At lunch we're joined by Peter Hewett and Wayne Schmidt who have driven down for the finish to present certificates and celebrate 10 years of Bibbulmun Track walking.

Drew gathers the group to introduce the CALM visitors. Then a walker recites a poem about his fellow

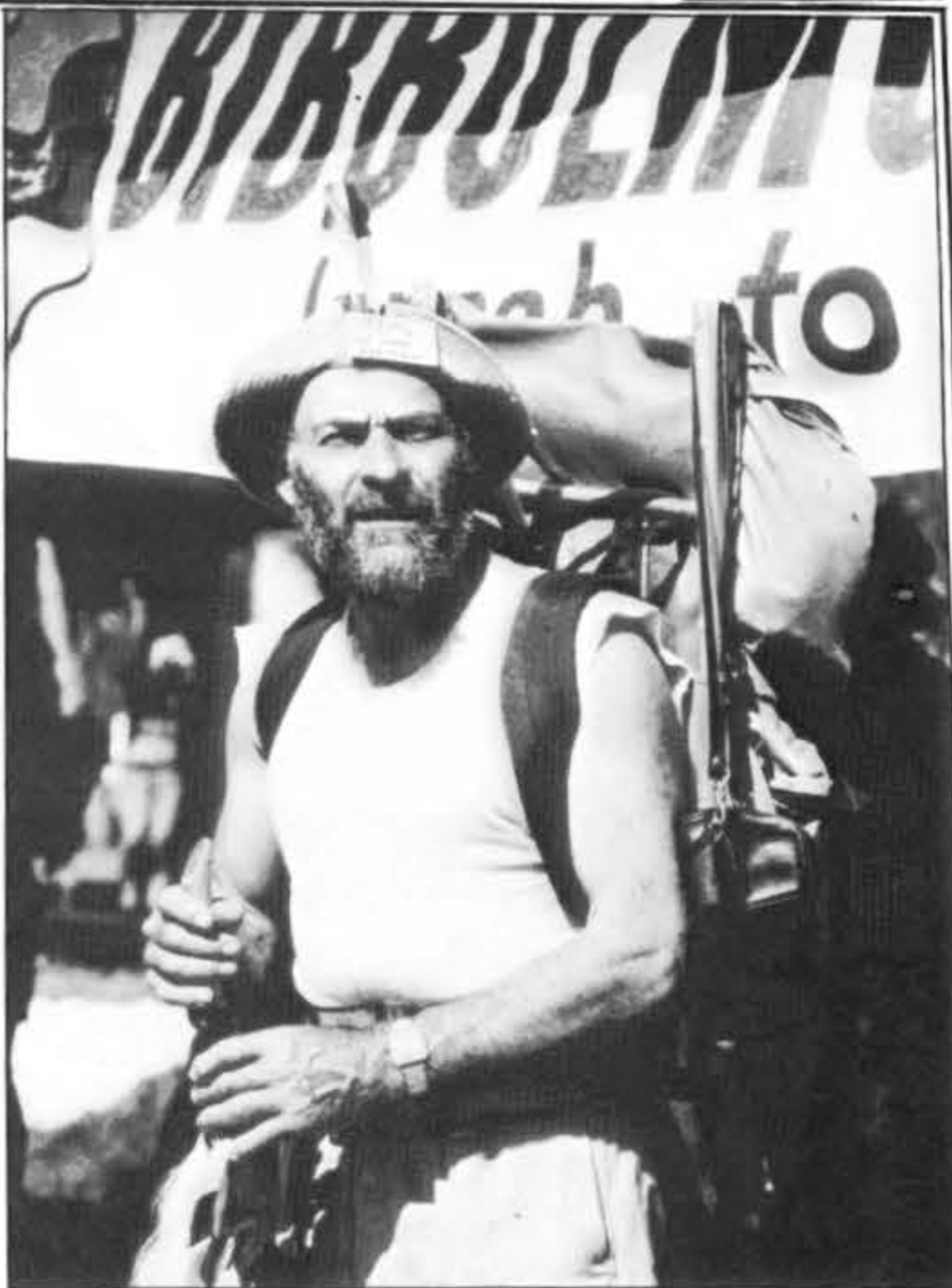
walkers and it's off again — five kilometres to Walpole through the low, open bush past clumps of kangaroo paws — their flower spikes nearly six feet tall.

After 2pm the walkers emerge from the bush, cross the South West Highway for the last time and head for the Walpole Pioneer Cottage.

Tears flow for some as they realise how far they've walked.

Many will return to walk the track again, hopefully bringing friends and family.

I photograph them against the CALM Bibbulmun sign — "from jarrah to giants" before the presentations and afternoon tea.



Jim "The Mad Axeman" Freeman — a seasoned Bibbulmun walker.



The first walkers arrive at Walpole's Pioneer Cottage.



Norma and Max Walsh presented Manjimup Shire representative Penny Jewell with a commemorative plaque from the Kalamunda Shire.



It's a long way to Walpole ... but it's worth it.

## CALM NEWS IS GOOD NEWS

If you know of an interesting project or event happening in your area, please let us know.

Send in your story forms — or a disk containing your proposed article — to CALM News editor Tanya Maxted.

For photographs we can supply black and white film and arrange to have it processed.

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

Call Tanya or Steve at (09) 389 8644.

## MECHANICS NIGHTMARE

I was recently called out to O'Brien's Four Wheel Drive Centre in Geraldton to remove a 1.5m python from under the bonnet of a Suzuki that had been brought in from a farm at Greenough for repairs.

The vehicle was awaiting repair work for several days before the mechanic had time to look under the bonnet.

The python had decided to spend the winter curled

up in the corner next to the battery.

Naturally the bonnet wasn't open for long and the mechanic refused to work on the vehicle until the reptile was removed.

After the python was removed and photographed I then used the specimen for educational talks on pythons at local primary schools that afternoon before releasing the healthy reptile along the upper reaches of the Chapman River east of Geraldton. — KEVIN MARSHALL

