

# CALM NEWS

Print post approved PP665002/00001

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

FOREST SCIENCE LIBRARY NOVEMBER-DECEMBER 1996  
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WESTERN AUSTRALIA



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## Gnangara - a park for the future

**GNANGARA Park** — a 50,000 hectare reserve 100 times the size of Kings Park—will be created under an innovative plan by the Department of Conservation and Land Management (CALM).

The park will become the biggest native bushland reserve in any major city in Australia.

Under the plan, CALM will progressively harvest the existing northern pine plantations at Gnangara, Pinjar and Yancheep and revegetate the cleared land.

The 50,000 hectares will include the 23,000 ha of land on which pines currently grow, and a further 27,000 ha of natural banksia woodlands.

Premier Richard Court, who unveiled plans for the park in November, said it would become an area 'for the children of the next millennium'.

"As part of the vision for the Gnangara Park, certain areas will be transformed into a living conservation park for plants that currently are rare and hovering on the brink of extinction," Mr Court said.

"For example, stands of scarlet banksia—the floral symbol of Albany and a species that is under threat from the biological bulldozer we call dieback disease—will be established along with many other rare species.

"Initiatives such as these will provide an enormous seed orchard that can be used to re-establish these rare species in their former habitat.

"Already, seeds from this year's record display of everlasting in the Murchison have been collected and next winter they'll be planted in some of the areas where pines have been harvested.

"As well, species from other parts of Western Australia will be grown so that every day there will be native WA plants in flower throughout the Park.

"These different landscapes will have tremendous benefits for schools, children, residents, visitors to our State and scientists as they will see many different ecosystems from the many different parts of WA."

Mr Court said native animals that once thrived on the Swan Coastal Plain would again have a huge area of natural habitat in which to live.

"Through Western Shield—CALM's predator control program—colonies of animals such as bilbies, echidnas and euros along with many other species that have become locally extinct, will once again abound throughout the Gnangara Park," he said.

Mr Court said when the pines were first established 70 years ago, it was not envisaged that the area around Gnangara would have developed into what it was today.

"In those days, the area was remote—the road from Perth was a winding, sandy track through banksia woodlands," he said.

"But today, the area is only minutes from what is among the fastest-growing regions in Australia.

"The sandy tracks have given way to major transport links such as the Mitchell Freeway and the Northern Suburbs Railway.

"To the north and west, people are living in suburbs that only a few years ago were isolated communities with few amenities. New centres have evolved, and with them have come developments which now are major tourist attractions.

"To the east, communities such as Ellenbrook are rapidly becoming satellites for major centres such as Midland and Wanneroo."

Mr Court said that not only did the plantations develop into a valuable timber resource that supported a number of local industries, they also protected one of Perth's most valuable natural resources—the Gnangara water mound.

"The reality today is that as the timber is harvested, the cleared areas cannot economically be re-established with pines," he said.



The Premier Richard Court showing visitors to Gnangara Park a healthy young bilby. The bilby is one of several species that had become extinct locally, and which CALM's Western Shield Program is re-introducing. Photo by Ernie McLintock

## CALM scores a Premier's award

**ADDING to a steadily increasing tally of honours, CALM recently won the Premier's Award for Provision of Services to Regional Western Australia.**

CALM was also a finalist in the Provision for the Future of Western Australia category.

This year, 86 applications were submitted from 39 agencies.

In its submission, the department cited a number of programs operating in the South West and the Great Southern Region,

which are indicative of the types of projects under way throughout the State.

The Public Sector Management Office developed the premise and criteria for the awards in close consultation with stakeholders in both the private and public sectors.

They had this to say:

"One project which has delighted many Western Australians and visitors to the State in recent months is the amazing Treetop Walk in the Valley of the Giants, the world's only tingle forest. The local

community at Walpole was concerned about the damage being done by visitors to this rare attraction.

CALM responded by building an elevated walkway and boardwalks to make the area more accessible to visitors, while preventing them from trampling the ground around the trees and damaging their roots.

A small entry fee pays for CALM's capital injection at the site, and funds future nature-based tourism projects in the region.

Other services to the Great Southern Region include CALM's work in establishing a commercial bluegum industry and fox baiting round Two Peoples Bay—an initiative which is thought to have brought Gilbert's Potoroo back from the brink of extinction.

Indeed, CALM's Western Shield project, with progress operating right around the State, is the biggest predator control program attempted anywhere in the world.

CALM's services to re-

gional Western Australia have been made more accessible to even the remotest communities through the use of new technology, and in particular a website on the Internet called NatureBase with current information for general viewers and schools."

The Premier's Awards were established in 1996 to recognise and reward the outstanding achievements of agencies and work teams within the Western Australian public sector.

• continued on page 2







# New Penguin Island Research Centre opened



From left, CALM Marine Operations Manager Peter Dans, WMC Managing Director Hugh Morgan, CALM Executive Director Dr Syd Shea and the Premier Richard Court about to enjoy The Penguin Experience. Photo by Ernie McLintock

A NEW research centre on Penguin Island will provide an important base for the further development of environmentally sensitive nature-based tourism activities in the Shoalwater Islands Marine Park.

The WMC Research and Management Centre, is a joint venture between CALM and one of Australia's biggest mining companies, WMC Resources Ltd.

The Centre creates a regional base for marine, island and coastal research, and is an integral part of the Government's plan to create a unique, marine nature-based tourism experience in the area.

Addressing guests at the official opening, Premier Richard Court said Western Australia was fortunate to have some of the world's best coastal and marine environments.

"Most Western Australians lived or worked near the coast and consequently it was a very important part of their lifestyle," Mr Court said.

"There are perhaps few better examples of the sheer beauty of our marine

environment than the Shoalwater Islands Marine Park, with its limestone reefs, seagrass beds, sandy sea floors and numerous islands which provide a diverse assembly of marine wildlife.

"Few capital cities in the world have such a treasure trove on their doorstep."

WMC Resources Ltd contributed \$120,000 towards the project, which is managed by CALM's Swan Region Marine Operations.

"But it is an area that is attracting an increasing number of visitors. Penguin Island alone, has more than 80,000 visitors a year," Mr Court said.

"This presents us with a challenge to ensure that we manage the area for its conservation and recreation values."

Mr Court said the partnership with WMC Resources Ltd would help provide the sound science which was imperative if new management initiatives were to be developed to maintain the ecological integrity of Penguin Island and the surrounding islands and waters.

## Chuditch release - a kick-start to Western Shield

by Mitzi Vance

THE release of 31 threatened chuditch at Lake Magenta Nature Reserve early in November, marked the beginning of success for Western Shield—the biggest wildlife conservation program ever undertaken in Australia.

The release of the chuditch was the first major re-introduction of threatened animals under CALM's Western Shield program.

The chuditch *Dasyurus geoffroyi*, the largest carnivorous marsupial found in WA, used to be widespread and abundant throughout Australia. But the introduction of predators such as foxes and feral cats has contributed greatly to its decline and it can now only be found in limited numbers in the South West of WA.

Executive Director Dr Syd Shea, Chuditch Recovery Team members Keith Morris, Peter Orell and Brent Johnson, and Katanning District Office staff along with students from Pingrup Primary School released the last two of the 31 chuditch early in November.

Dr Shea said the Western Shield program was aimed at redressing this decline and bringing native animals, such as the chuditch, back from the brink of extinction.

"Through successful fox baiting operations at Lake Magenta over the past nine months, a 90 per cent reduction in the number of foxes has been achieved, paving the way for the re-introduction of the chuditch.

"The release at Lake Magenta is part of a detailed recovery plan funded by CALM, the Australian Nature Conservation Authority, Perth Zoo and Alcoa, to improve the conservation status of the chuditch by translocating it to parts of the State that it previously inhabited.



Dr Shea, Katanning District staff and students from Pingrup Primary School look on as Keith Morris gets ready to release a chuditch. Photo by Mitzi Vance

"Extensive surveys of large conservation reserves in the southern Wheatbelt have failed to locate significant chuditch populations and the recovery team decided to maintain at least one population in the region.

"Twenty-nine of the 31 chuditch, translocated from the captive breeding program at Perth Zoo, were released in October and comprised an equal

number of males and females, with at least 25 being under two years of age.

"Extensive post-release monitoring by CALM staff began immediately, and if the translocation and release is successful, a further 20 to 30 chuditch will be released in April 1997."

Dr Shea said Lake Magenta's status as a 108,000-hectare A class nature reserve made it an

ideal site, as it provided the vegetation needed for the chuditch to survive.

"The size, remoteness and relatively pristine condition of Lake Magenta Nature Reserve means it will play a vital role in the re-establishment of plant and animal species in the Wheatbelt region.

"Much of the vegetation on the reserve is mallee or mallee heath on sandy soils, with small

patches of salmon gum woodland in the northern part of the reserve and thickets around Lake Magenta," he said.

"Other mammals present on the reserve include the Mitchells hopping mouse, heath rat, western mouse, ash-grey mouse, brush-tailed possums and quenda."

Dr Shea said the re-introduction of chuditch at Lake Magenta was one of a number of

planned releases of native fauna under the Western Shield program.

"During 1996-97 it is planned to translocate and release a number of species such as the quenda, western barred bandicoot, woylie, malleefowl and western swamp tortoise to a number of sites throughout the State from Peron Peninsula and the southern forest region to Dryandra and Boyagin," he said.



# New book released

by Mitzi Vance

A COLLABORATIVE research project between CALM and the CSIRO has resulted in a publication of international significance.

The publication - "A key to useful Australian acacias for the seasonally dry tropics" - provides a key, enabling 31 of the most commonly used Australian tropical acacias, commonly called wattles, to be easily identified.

Authors Bruce Maslin, CALM senior research scientist, and Maurice Macdonald, CSIRO botanist wrote the book following the success of their research into tabling and categorising Australia's native wattles.

The publication research project was funded by the Australian Agency for International Development and a project by the United Nations in Asia.

CALM Executive Director Syd Shea said the publication of the book showcased to the world the expertise and knowledge of Australia's scientists.

"CALM and CSIRO are pleased to have been a part of this project that will be

of major benefit to numerous conservation, commercial and education organisations worldwide," he said.

"Both Bruce Maslin and Maurice Macdonald have made a significant contribution to the development of a concise and systematic key to native flora identification, conservation and its associated location values."

Dr Shea said *Acacias* represented a vast resource that offered substantial scope for environmental social and economic utilisation.

"Species of *Acacias* from the seasonally dry tropics of Australia are used in 74 countries and cover almost 2 million hectares in plantations," he said.

"Many of these species have the potential to meet demand for fast-growing, renewable resources of wood and other products and are currently being used in commercial, environmental and social ap-

lications worldwide. "For example a number of *Acacia* species such as the *A. auriculiformis*, *A. cincinnata* and *A. crassicaarpa* are important sources of timber and pulp while seeds from *A. colei* and *A. tumida* provide a source of food for humans.

The publication provides users with botanical descriptions for each species, complemented by colour photographs and line drawings. Information on related species and hybrids is also provided.

*Acacia* is the largest group of vascular plants in Australia with about 950 species currently identified.

Dr Shea said taxonomy and plant identification were essential as thorough understanding of population structures and growth cycles were essential for efficient and sustainable use.

The publication "A key to useful Australian acacias for the seasonally dry tropics" is available for \$34.95 from the CSIRO, PO Box 1139, Collingwood Victoria, 3066. Phone (03) 9662 7666.



Tym Duncanson, Manager of CALM Sharefarms, Lower West receiving the Finalist Award from Mr Court. Photo courtesy Greening WA

## CALM Sharefarms, Lower West a finalist in awards

by Deb Booker

CALM's Sharefarms, Lower West was one of three finalists in the Government Section of the John Tonkin Greening Awards, held recently at Government House Ballroom in Perth.

Sharefarms Lower West's entry highlighted CALM's expertise in facilitating various groups of landowners, investors, local businesses and contractors.

The benefits of this union include effecting

landcare improvements and a significant increase in income.

Verity James did a great job choreographing the afternoon, and flamboyantly directing the Premier Mr Richard Court and finalists through the presentation of awards.

(It must take extraordinary self control for her to read the news at night and not articulate the stories with dramatic hand gestures!)

It was moving to hear the stories of people who have spent many years working to revegetate not

only their own farms but also community areas.

All finalists were applauded for reaching the prestigious award presentation ceremony and for their high level of commitment to caring for the environment.

Greening WA's chairman Frank Schaper said that every finalist in the awards was a winner.

"It's heartening that so many people are committed to the environment, some of whom began doing so long before it became fashionable, Mr Schaper said.

"We keep finding such people, which augurs well for the future."

CALM Sharefarms, Lower West manager Tym Duncanson said that attending such events had other benefits—namely, positive interactions with other groups, meeting inspiring individuals and even using the friendly atmosphere to calmly discuss some more sensitive issues!

"Unfortunately we didn't take home the grand prize, but no matter—the experience was inspirational and encouraging," he said.



CALM volunteer Margaret Brims shows technical officer Nicky Robinson and consultant botanist Brendan Lepschi a carefully pressed specimen of the presumed extinct *Scaevola macrophylla*. Photo by Verna Costello

## Commercial wildflower picker numbers on the up and up



During a recent visit to Perth District, Director of Regional Services Chris Haynes, right, inspected a crop of *Stirlingia latifolia* with reserves officer Ken Borland. Photo by Alan Briggs

During spring this year, Perth District experienced a big increase in the number of commercial wildflower pickers.

Currently, the Perth District has 65 licensed wildflower pickers and 10 licensed seed pickers operating within State forest and vacant Crown land.

One of the by-products of CALM Fire's prescribed burning is *Stirlingia latifolia*, a species keenly sought by wildflower exporters to Holland and Japan. About 450,000 bunches, comprising 10-15 stems, of *Stirlingia* have been picked annually within the Perth District.

## Scaevola rediscovered

by Neville Marchant

HERBARIUM specimens of a member of the *leschenaultia* family thought to be extinct have been rediscovered in the Albany Regional Herbarium.

Recently the 13,000 plant specimens, of the Albany Regional Herbarium have been databased and electronically linked to CALM's Herbarium in Como.

A duplicate of a specimen from the Albany Regional Herbarium's

accommodation in the new CALM premises was sent to Perth as part of the vouchering of all of specimens held in regional herbaria.

One of the CALM Herbarium volunteers, Margaret Brims, working on the newly arrived *leschenaultia* family material, made the exciting discovery.

Margaret realised that the material she was looking at was the presumed extinct species *Scaevola macrophylla*, so with barely concealed excitement she asked CALM botanist Brendan Lepschi, if she was

correct. Brendan, who works on rare and endangered collections, confirmed her discovery.

Previously *Scaevola macrophylla* was known only from early historical collections made towards the end of the last century and housed in the Melbourne Herbarium.

Now WA has three more collections made by Eileen Croxford of Albany between 1987 and 1990 from an area east of Albany.

Field work this spring has examined the size of the population to assess its conservation needs.



# Citations presented at centenary celebrations

**PERTH Observatory—Australia's sole remaining State observatory—recently celebrated its centenary at a function where about 250 guests witnessed Premier Richard Court unveil a granite commemorative plaque.**

The guests listened to speeches from the Premier, Environment Minister Peter Foss, CALM Executive Director Dr Syd Shea, and guests from Lowell Observatory, the largest private observatory in the US.

Government Astronomer James Biggs was well pleased with the event.

"The staff have put in a lot of effort during this special year for the Observatory, and it was really satisfying to conduct this formal ceremony with the participation of senior members of the State government—just as it was at our foundation," he said.

"Our guests from the US emphasised the astronomically important location Perth occupies on the globe, and I was really touched by their relaying of a congratulatory message from the

President of the American Astronomical Society on behalf of its 6000 members.

Another novel part of the ceremony was the Premier's presentation of citations to four individuals who had asteroids (discovered by Perth Observatory) named after them in recognition of their contribution to the Observatory's operation.

One asteroid was named Cooke after William Cooke, first Government Astronomer for Western Australia who went on to become Government Astronomer for New South Wales and Professor of Astronomy at the University of Sydney.

Another was named Curlewis after Harold Curlewis, second Government Astronomer for Western Australia who ensured the survival of the Observatory through the hard times of the First World War and the Great Depression.

Administrative assistant Carmel Borg received a great surprise when her tremendous work at the Observatory over the last 16 years was rewarded by the



Left to right, Curtin University Professor John DeLaeter and Observatory administrative assistant Carmel Borg, with Robyn Furlong, and Russell Cooke, all proudly displaying the citations. Robyn and Russell accepted the citations in honour of their grandfathers, Harold Curlewis and William Cooke. Photo by Paul Hutton

naming of an asteroid Carmelmaria after her.

Asteroid Delaeter was named after Western Aus-

tralia's most eminent physical scientist,

Professor John DeLaeter of Curtin University in recognition of his many scientific achievements.

"I feel really privileged that we were able to recog-

nise these special people in this way," James said.

"By international convention it is the prerogative

of the discoverers to name asteroids, and these names are now literally immortalised in the heavens."

## Jim joins CALM from DEP

by Verna Costello

**JIM BURT, has taken up position as marine ecologist at the department's Marine Conservation Branch in Fremantle after six months' long service leave spent in Britain.**

His arrival adds one more staff member to those who have already transferred to the Branch from the Department of Environmental Protection's, Marine Impacts Branch (See May-June CALM NEWS).

Jim graduated from the University of Western Australia with a Bachelor of Science degree in 1981.

After a year working and travelling in Australia and overseas, he completed his Honours in zoology at UWA.

### Scholarship

In 1985, Jim was awarded a Commonwealth and Foreign Council scholarship to study for a Masters in Ecology at London University.

He then spent 2 years working in Pakistan supervising a number of projects relating to the conservation of endangered species, and helped develop mechanisms and strategies to improve the delivery of a nationally integrated conservation program for endangered species.

On returning to Australia in 1988 Jim worked for about a year in fisheries research with the Fisheries Department before joining the Marine Branch at the DEP. He has had more than 10 years' experience in marine science including a year spent in Papua New Guinea.

Jim's experiences in Australia and overseas have given him the opportunity to acquire knowledge in a diversity of areas including: temperate marine ecology of WA; conservation of endangered fauna; design and implementation of biological surveys and monitoring programs; and environmental impacts of the oil industry on WA's marine environment.

He is very enthusiastic about his new role with CALM, which will see a shift in his work away from environmental protection (focused on the management of waste discharges to the marine environ-

ment), toward the broader issues of nature conservation and natural resource management.

"I feel very privileged to be able to contribute to the development of a Marine Conservation Branch in CALM and to play a part at the beginning of a program that will ultimately see the establishment of a world class marine reserve system in Western Australia," he said.

Jim has been married for 10 years to Sue, whose full time career is as 'wife and mother'. They have a daughter, Emma (7) and two sons, David (5) and Jonathan (1).

In his spare time, Jim

likes eating, also meeting people, politics, outdoor activities; particularly fishing, walking and camping; as well as relaxing in front of an open fire, reading and listening to music.

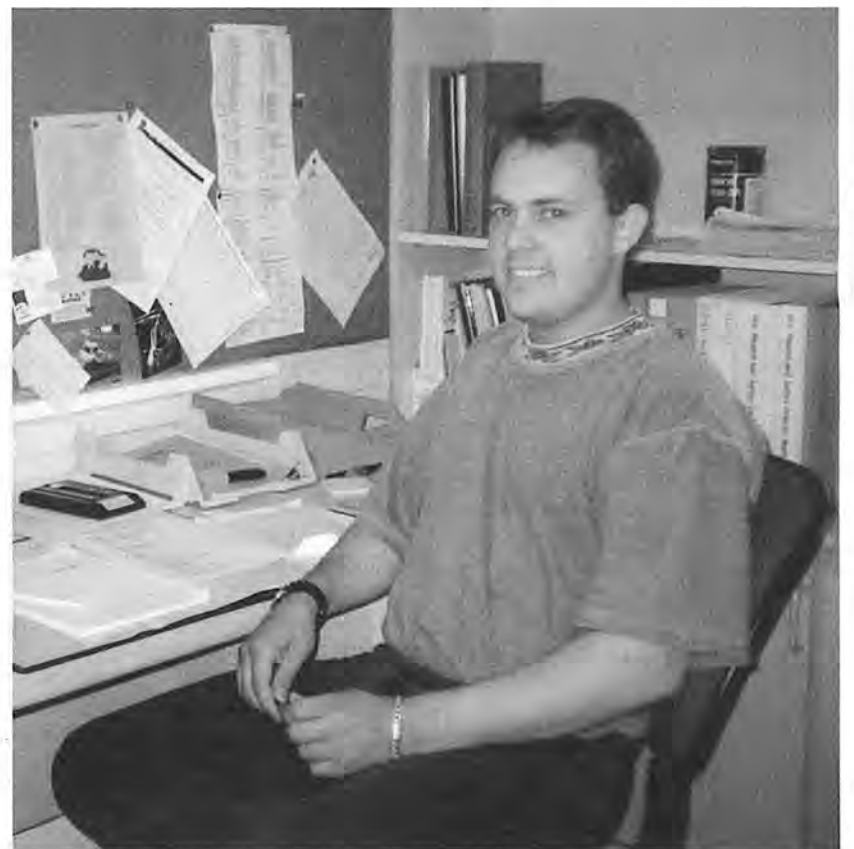
His favourite authors are of the of Tim Winton ilk. However, he is currently reading the Winston Churchill six-volume epic *A History of the English Speaking Peoples*.

His taste in music is wide ranged: "Pretty well anything from the blues or bebop to Beethoven," Jim said.

We welcome Jim to CALM, and wish him many satisfying years with the department.



Jim Burt at his office door. Photo by Verna Costello



Graeme Hobson. Photo by Deb Booker

## Graeme's grit is rewarded

**A COMBINATION of dogged determination and a preparedness to relocate from the security of the familiar to the risk of the unknown has seen former Australian Workers' Union employee Graeme Hobson rise to assistant area coordinator for Sharefarms, Lower West in less than eight years.**

Graeme joined CALM in March 1988, and after completing a Land Management Traineeship Course with TAFE at

Bunbury, he was appointed Perth District reserves management assistant in April 1989.

With his sights set on securing a Bachelor of Science degree, majoring in Environmental Management, Graeme began studying in 1991 at Edith Cowan University.

With a mix of part- and full-time study, leave with and without pay, and with approval from CALM for study leave during working hours, Graeme achieved his goal at the end of 1995.

In October 1995, Graeme accepted a secondment to CALM Sharefarms, Lower West, based at Collie, which necessitated his move from the Perth metropolitan area.

He was recently appointed to the permanent staff.

"Graeme is an example of the kind of CALM employee who doesn't wait for opportunity to knock. He goes out and creates the appropriate climate for it to pursue him," said Sharefarms, Lower West manager Tym Duncanson.

## One for the 'Doomers and Gloomers' "No," they said - "That'll never work!"

**HERE are some statistics for those purveyors of doom and gloom who said it wouldn't work:**

Between September 14, when the Premier officially opened the Valley of the Giants, and Decem-

ber 10, 1996, visitors to the site numbered 77,071, bringing in \$323,952.88 in revenue.



# Where have all the graduates gone?

**W**HEN someone posed the question, "Where are they now?" (meaning graduates of the Field Officer Skills-based Training Course) it was decided to answer with a regular feature in CALM NEWS.

Megan Hughes, herself a graduate, and whose story appeared in the September-October issue, agreed to write about Rebecca Wolstenholme, Greg Evans and John Marshall, with Tammie Reid reporting on Stuart Harrison and Mark Virgo.

One of the constantly recurring challenges during the writing of the stories was pinning graduates down for interview, with the sometimes sudden switching by the graduate from one role in one place to another elsewhere.

Rebecca Wolstenholme, for example, was away dealing with a wildfire, while Stuart Harrison, was urgently called away from an interview on another mission.

We begin with Megan Hughes story on Rebecca Wolstenholme.

**Rebecca Wolstenholme: Located at Moora District** Rebecca was appointed as a conservation officer to implement the management program for declared rare, and poorly known flora in the district

A three-year program, federally funded by the Australian Nature Conservation Agency (ANCA), it aims to ensure the continued survival of endangered populations in the wild.

Rebecca has a Bachelor of Science degree in Environmental Science and in Populations, Resource and Technology from Murdoch University.

Her interest in the natural environment stems from growing up on a farm in the south-west of England, and living on the coast near Perth, where she enjoyed boating and diving.

"During my final year at university, I completed a one-year project, looking at ecotourism, and focusing on tour-boat operators along the WA coast, with the Marine Branch at Hillarys," she said.

"Armed with this background and my degree, I sought a career with CALM because of the diversity of work the department offers.

"My first position after graduating from the Field Officer Course, was as reserves officer for the Merredin District.

"My duties involved the rare flora work, seed collection for rehabilitation projects, and helping with the recreation and tourism plan for the Merredin District, as well as a variety of wildlife tasks."



Marking trees with a giant 'H' for 'habitat' is one of many tasks carried out during the training courses. Seen here are former course participants, from left: Mark Virgo, Greg Evans, Rebecca Wolstenholme, Stuart Harrison and, in the foreground, John Marshall. Photo by Tammie Reid.

At present, Rebecca is implementing the Moora District Threatened Flora Management Plan. This entails the overseeing and endorsement of the recommended management actions necessary to recover the species.

Management includes extensive surveys of the species, notifying land owners of populations, fencing off and marking of the populations, and weed control.

"Moora District is botanically very special. Within the area, three botanical districts merge, the Irwin, the Avon and the Darling, resulting in a high diversity of species," Rebecca says.

"I often work with people other than those in the District office—staff from the Herbarium, for example—as well as WA Threatened Species and Communities Unit (WATSCU), Wildlife Protection Branch and Kings Park and Botanic Gardens.

"There's also contact with people from other government departments such as Main Roads and Westrail, and local government authorities; all involved in the recovery process of rare flora.

"I often communicate with farmers who have rare flora, or the potential for it on their land.

"It's this challenge of communicating effectively with people from such a wide variety of backgrounds that I enjoy, plus the diversity of my works

program. "I like getting out of the office, and as my work requires me to take frequent trips out into the field, it suits me perfectly.

Commenting on the Skills-based Training Course, Rebecca said that the group training sessions at the Dwellingup Centre had been beneficial to her career with CALM.

"Apart from the information we received, it was great for team-building skills, and those who went through it have formed a special bond," she said.

"Our senior trainer, Alan Byrne, and other trainers and guest speakers passed on useful information, and it was a great opportunity to meet staff from different districts within CALM.

"I've already put much of what I've learnt to use at both Merredin and Moora, Rebecca said.

**Mark Virgo: is located at Walpole District, but he is also involved in helping Pemberton District with their Forest Resources Program.**

He spends about 90 per cent of the time in the Forest Resources Program, but has some opportunities to work in other programs, such as nature conservation, where he has recently enjoyed helping Carl Beck with his invertebrate surveys.)

Qualifications: Associate Diploma in Environmental Technology from Kalgoorlie

College. Background: Mark began working with CALM as a leading hand in the Goldfields Region's premises at Kalgoorlie, before applying for the field officer intake. Encouraged by CALM staff at Kalgoorlie, Mark, who was interested in a change and had heard lots of interesting stories about the work that went on in other areas of CALM, was keen to try it out.

At present Mark is responsible for harvesting contractors who are setting up coupes, ensuring the environmental checks are completed, and supervising the operations.

He is also involved in the silvicultural side of operations, under the guidance of Walpole operations officer Donna Green. He has some involvement with road construction and helping out with the district's prescribed burning program, where he has been taking on more responsibility as experience and training accumulates.

Mark says that the challenge of putting the mind to work and getting the paper work and planning right, as well as the field work are what he enjoys most about his work.

"There's a good mix of responsibilities, office and field work, as well as the opportunity to see some new country, and to work in the karri forests," Mark said.

*"Basically, I'm enjoying getting out and applying what I've learnt from the Dwellingup training sessions," Mark*

Commenting on the Skills-based Training Course, Mark said that a lot was condensed into the three-week sessions.

"Obviously the short courses couldn't cover absolutely everything, so it certainly helped that I'd had some field work before the training," Mark said.

"Another advantage is the tremendous spirit of camaraderie when we get together and share experiences with each other, particularly when we've been in similar situations.

"Basically, I'm enjoying getting out and applying what I've learnt from the Dwellingup training sessions, and adding to this knowledge with what I'm learning from the Walpole district staff.

"They're a great bunch of people, who are willing to share their knowledge and expertise."

*"The staff have been helpful, passing on the benefit of their experience, ... made the transition into the job so much smoother." Greg*

**Greg Evans: Located at Manjimup District, but is also involved in helping Pemberton District with supervision of coupe harvesting crews.**

About 95 per cent of his time at Manjimup is taken up with the Forest Resources Program, which includes treemarking, and road construction, as well as CALM fire operations.

The rest of the time, Greg carries out occasional assignments such as implementing trapping, and monitoring animal population levels.

Greg gained his Bachelor of

Science in Forestry at the Australian National University in 1994, Canberra. Before this, he completed one semester of Natural Resources Management at Roseworthy Agricultural College in South Australia, his home State. This was cut short because he ran out of one of life's essentials—money!

To rectify this lack, Greg worked as a 2nd-class machinist with a woodwork machinery company for about three and a half years before undertaking his degree course. He applied for a field officer position with CALM soon after graduating.

Greg enjoys spending the best part of his time involved in the diversity of tasks that go with forest management. Also highly challenging to Greg is fire protection.

About the Skills-based Training Course, Greg says he found it provided an excellent foundation of information on a wide diversity of CALM issues, especially those that related specifically to WA forestry and dieback management.

"The staff down here have also been more than helpful in passing on their knowledge, giving me the benefit of their experience, which has made the transition into the job so much smoother," Greg said.



Left: John Wheeler and Yanche National Park casual staff member Juanita Pola with the koala twins. Photo by Ernie McLintock.



Right: "Psst! I hear this John Wheeler's a soft touch when it comes to caring for koalas." Photo by Ernie McLintock.



**Stuart Harrison:** Located at Dwellingup District, Stuart's main area of work is as a member of the tree-marking and silvicultural team, which is part of the district's forest resources program led by forester Ian Freeman.

Stuart is also responsible for the registration and management of district rare flora and in regulating and supervising the flora industry.

"It's been a busy time with the seed pickers coming in for endorsement and, of course, I'm helping out with the CALM fire program as needed on the Fire Emergency Availability roster," Stuart said.

After graduating as a Bachelor of Applied Science in Environmental Management,

Stuart's main area of work is as a member of the tree-marking and silvicultural team, which is part of the district's forest resources program led by forester Ian Freeman.

CALM seemed to Stuart to be the logical employer for someone with these qualifications and an outdoors person interested in natural resource management. Currently, he is studying part-time towards a Graduate Diploma of Applied Science in Outdoor Pursuits, which means he travels once a week to Perth to attend Edith Cowan University.

At present, significant inroads on time allocated for tree-marking and silvicultural tasks have been made with the recent intense focus on tourism and recreation.

As the district's Bibbulmun Track co-ordinator, much of Stuart's time is spent supervising the work crews and prison crews, assessing and marking the track segments, as well as planning the works and resources needed.

Job satisfaction: It was 5.45 pm when this question was asked and, as if to bring home the point of his answer, Stuart was called

urgently to check a smoke report near a Mandurah nature reserve. His parting reply—made with a huge grin as he hurtled through the door—"The diversity of jobs!"

The Skills-based Training Course: "It was really comprehensive, covering a broad range of subjects, that gave us an insight into the large scope of responsibilities CALM has," Stuart said.

"The programs were conducted well, with the trainers being very approachable and helpful.

"When you list all of the people we came into contact with through the training program, people from all levels of expertise, and include members of our

group of recruits, each with their own particular strengths, we would have more than a score of contacts throughout the Department.

"At all times we were encouraged to feel confident about contacting any one of them, to gain information we may need in any field of expertise."

**John Marshall:** is located at Pemberton District, but sometimes he is involved in forest resource programs in both Walpole and Manjimup districts.

Main areas of work: He is working about 75 per cent of the time in the hardwood business unit associated with timber harvesting of karri and jarrah forest.

The rest of his time is spent working on declared rare flora, burning activities and "anywhere else I might be needed".

John has a Bachelor of Science in Environmental Management from Edith Cowan University, Joondalup

"I grew up in Perth and Bunbury, and have travelled extensively around the State and Australia," John said.

"I worked in my own landscaping business for five years, while I studied for my degree. Once qualified, I felt a career with CALM would suit me down to the ground."

He is now mainly supervising logging crews, planning and implementing harvesting areas, as sector boss at prescribed and regen burns, as well as planning a couple of aircraft burns in the district. One day a week is put aside for declared rare flora work.

"What I enjoy most about my work is the wide variety and the opportunity to get into other fields such as national parks and recreation," John said.

"I really enjoy dealing with people, and the friends I've made. Also the fact that my pay can go in only one direction—up from this level, (Thank God!)."

"The Field Officer Skills-based Training Course is quite intense and there's a lot to take in over a short space of time.

"It's very well organised and implemented, though, and the trainers are very helpful and encouraging to the new cadets. It's also an invaluable way to build lasting friendships, with a great bunch of people," John said.

**Job satisfaction: His parting reply—made with a huge grin as he hurtled through the door—was "The diversity of jobs!".** Stuart

**"What I enjoy most is the wide variety and the opportunity to get into other fields such as national parks and recreation,"** John

## Twins still thriving

**WHILE twin-koala births are not unheard of, this pair is thought to be unique in having survived infancy—the first ever recorded in Western Australia.**

Koalas breed during summer, and females generally produce a single youngster each year.

However, news of the twins' arrival was not released until they had survived the critical first seven months' stage.

Both now look like becoming permanent stars of Yanchep National Park.

To celebrate the birth and survival of the twins, CALM

held a naming competition in conjunction with Radio Lollipop and Princess Margaret Hospital (PMH).

The winner was 12-year-old Tammie Mires of Bateman, who chose the names 'Euca' and 'Lyptus'.

The prize entitles her to a weekend away with her family at Perup Wilderness Lodge (near Manjimup), a set of CALM's Bush Books, plus a Gold Star Pass, which entitles them to free entry to all CALM-managed national parks in WA, and includes a year's subscription to *LANDSCOPE*.



Even a scientist needs a caffeine fix once in a while. With not a syringe in sight, Per Christensen prepares his 'fix' during a break in the interview for this story. Photo by Verna Costello

# Per Christensen 'retires' to a long list of projects

**SENIOR principal research scientist Per Christensen has joined the small group of people opting to strike out on their own. While he has left CALM, he is not entirely lost to us and he will work on a contract basis on several CALM projects.**

These include Project Eden on the Peron Peninsula some work on forest fauna and continuing involvement with *LANDSCOPE* Expeditions.

Per's career with the department has seen him (and by association CALM itself) notch up many significant achievements that have provided him with a great deal of well-justified satisfaction.

His advent into CALM as acting superintendent of research was at the time of the department's formation in 1985. This was preceded by 17 years with the Forests Department, first as assistant district forest officer, rising to research superintendent in 1985, from which position he moved to CALM and its Manjimup Research Centre.

### Solid background

It was at here, that Per's background as both a botanist and a zoologist, as well as a solid working background in forestry, would quickly prove invaluable in researching the relationship between prescribed burning and/or logging and the diminishing numbers of native plant and animal species.

Subsequent to this research, Per was the first scientist to draw attention to the mounting evidence, gathered by him and others, that pointed towards introduced predators, particularly the fox, and not logging and prescribed burning, as the chief cause of the disappearance of

native animals.

Around this time Per floated the idea of establishing fauna priority areas within the forest. The first to be established was at the Perup, where six threatened animal species were found: the woylie (since taken off the threatened list), the tamar, the ringtail possum, the numbat, the chuditch, and the southern brown bandicoot.

### Gazetting reserve

Per was also one of the prime movers in setting up the reserve system in the southern forest. Some of the priority areas have since become national parks and nature reserves, and have been added to.

Another important achievement Per looks on with some pride was the successful proposal to have an area near the Hay River, in the eastern part of the State forest close to Denmark gazetted as a nature reserve. The area later became Mount Lindsay National Park. Other projects, spearheaded by Per include:

**Desert Dreaming**, a project that confirmed suspicions that the cat, as well as the fox, was a formidable enemy of WA native animals.

**Project Eden** on Peron Peninsula, where both fox and cat numbers have been significantly reduced.

**LANDSCOPE Expeditions.** The pilot expedition was so successful, that within six months another half dozen expeditions were initiated.

But what of Per Christensen, before his Forests Department days? His name gives a clue, and you'd be right in surmising that his birthplace might be found somewhere in Scandinavia, and if you thought 'Denmark', you'd

be spot on.

When he was nine years old, his family left Denmark to settle in Kenya, where his parents ran a pyrethrum farm.

Per left high school, immediately after gaining his school certificate, and began work in the Forests department as a trainee forester.

On completion of his training, Per spent three years working on a forest station, and as a research technical assistant, where he became interested in researching *Dothistrona pini*, a serious disease of *Pinus radiata* in areas of very high rainfall. (The area he was working in had a 90-inch annual rainfall.) He co-authored two papers on the disease, and was the main author of a third.

Then came national service training, which was compulsory in Kenya.

In 1963, Per married Helen in Kenya; they then moved to South Africa, where their daughter Catherine was born.

The responsibilities that came with married life and parenthood, motivated Per to attend Rhodes University where he completed a double major in botany and zoology, gaining honours in botany. (Per later added to these accomplishments by completing his PhD at UWA with a thesis on the effects of fire on the woylie and the tamar wallaby.)

In time, Per's breadth of expertise and experience was to cover research on fire ecology and plants and animals, as well as softwood and hardwood silviculture and pathology.

With the increasing uncertainty for Europeans in Kenya and South Africa, the Christensens looked around for somewhere they might bring up a family with a better degree of

certainty. They decided on Western Australia.

The Christensen family arrived in WA, in 1968, and went immediately to Manjimup where Per began work for the Forests Department in karri silviculture and dieback research.

With regard to his career path, Per sees himself as having 'drifted upwards' rather than as a person 'driven' relentlessly by ambition to get to the top of his profession as fast as possible.

### Driving force

"A quest for greater knowledge has always been the driving force for me, and a desire to see results put to some useful purpose. Desert Dreaming, Project Eden, and my input into the reserve system are examples," Per said.

"I've also been fortunate in having staff who are self-starters and themselves interested in a positive outcome.

Off duty, Per is an avid participant in sport; he is a strong swimmer, has taken part in many of the Blackwood marathon relays and played hockey until he was nearly 40.

Family is a high priority with Per and Helen, who have four adult children: Catherine, Jacqueline, Warren and Sheena. They have one granddaughter, Ruby (3), and two grandsons, Dane (2), and Jake (2 months).

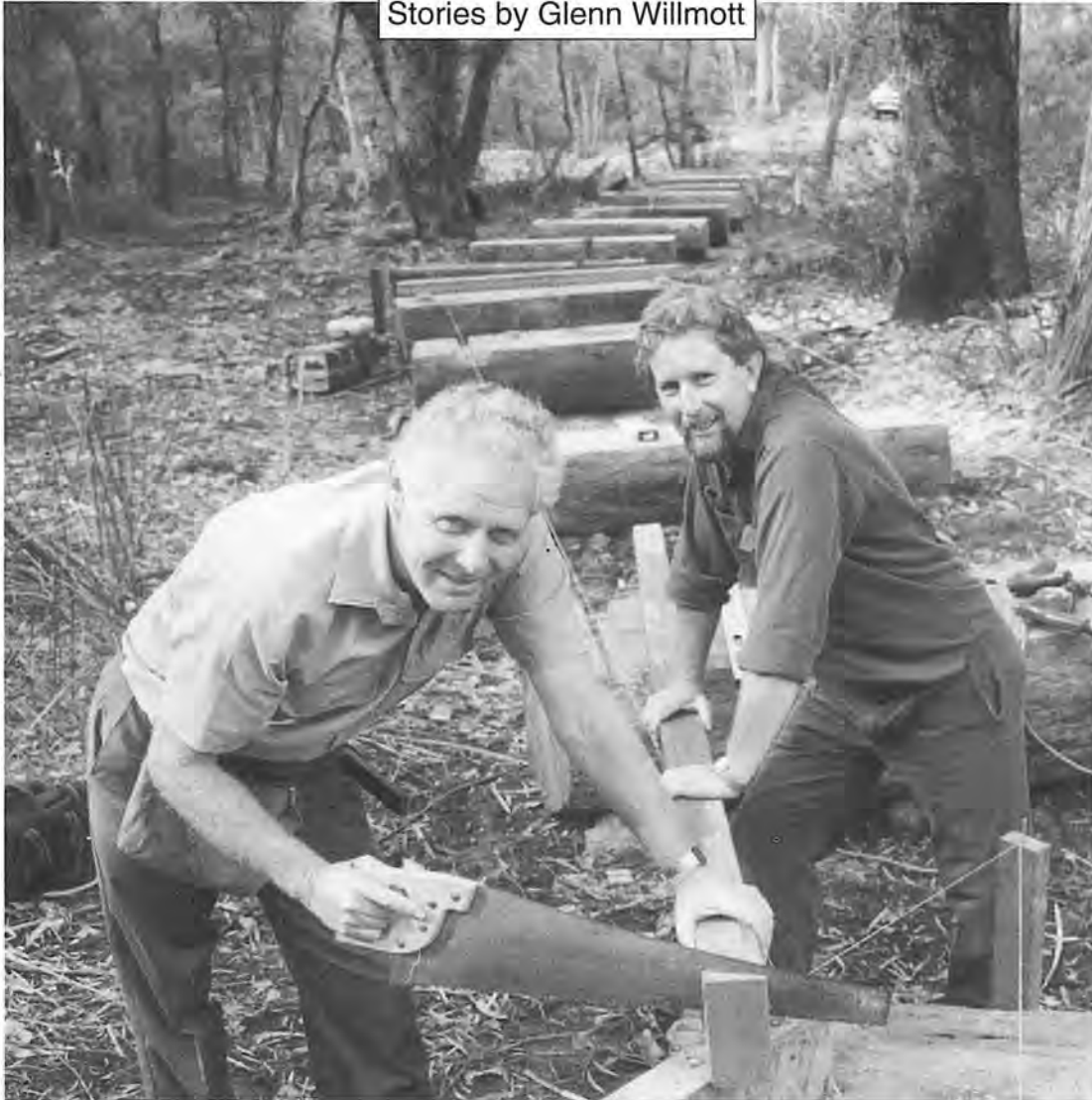
A story as short as this does scant justice to someone with Per's achievements, and those who know him well will, no doubt, wonder about the omissions. But these must await a biographer who is less at the mercy of space limitations.

While Per will be very much missed at CALM, his colleagues and friends wish him every success and happiness in his new venture.



# Bridge, boardwalk, caves and lookout upgraded

Stories by Glenn Willmott



Carpenter Tony King, front, and forest worker Ken Howes, building the Ten Mile Brook Boardwalk. Photo courtesy Margaret River Mail

CALM Margaret River recreation officer Glenn Willmott has provided the following three stories about recent happenings in the area: A Commonwealth Government grant for work carried out at Ten Mile Brook Dam recreation site, protective work on caves, and wheelchair access to Injidup Lookout.

A \$27,000 Commonwealth Government grant has given the Ten Mile Brook Dam recreation network in Margaret River a considerable quality boost. The money has been used in the South West Capes area to construct a 15-metre single log-span bridge over

the Margaret River, and a 75-metre boardwalk over a low-lying area to provide all-weather access.

The money will also be used to provide signage, telling the story of log-extraction methods used in the pioneering and group settlement days.

The new dam and picnic site, about seven kilometres east of the townsite, will now be accessible throughout the year for walkers and cyclists.

A section of the walk and cycle path linking the town and the dam previously became impassable due to the flooding of the Margaret River in winter.

The boardwalk also follows the old railway line that was used for transport-

ing logs in the early part of this century.

"We wanted to create the theme of the old logging railway bridge, so we used logs as bearers to get the required height when spanning the flooded area," said parks and recreation officer Neil Taylor.

The town of Margaret River is growing at a rapid rate, with the coastal environment and the wineries being the main focus for recreation.

This project provides a superior-quality recreation facility in the native forests surrounding the town, and will relieve some of the pressure on coastal recreation sites as well as add a variety of activities for the visitor.



The wheel-chair-accessible lookout at Injidup. Photo by Glenn Willmott

## Greater protection for caves

A RECENT initiative by CALM and the Cave Management Advisory Committee (CMAC) in the South West Capes area has taken the protection of the unique cave environments in Leeuwin-Naturaliste National Park a step further.

Calgardup Cave (about five kilometres north of Lake Cave along Caves Road), which was one of the many caves visited by tourists just after the turn of the century, is today a self-guiding cave (no, the cave doesn't guide itself, but visitors do guide themselves) by following

the following procedure:

To gain access, visitors buy a ticket from a machine at the cave entrance to receive the code that opens the gate.

The cave is open to the public for \$2.00 per visitor.

To ensure the user-pays principal works, a security grille has been installed at the entrance, and the combination lock is changed periodically.

The work at the cave was directly funded by revenue collected from the Cave and Abseiling Permit System.

Two caves in the area have had parking-ticket style vendor machines for more than 18 months now,

and have collectively brought in about \$12,000 in 1995.

Parks and recreation officer Neil Taylor said that the earning potential of the caves was increasing gradually.

"This, in turn, allows us to improve our cave management practices, by funding better infrastructure, research and public education," Neil said.

"What we have achieved at Calgardup Cave will act as a benchmark for other cave protection work in the South West Capes area.

Interpretive signage in the cave is installed to give visitors a better understand-

ing of the cave environment and why it is critical to stay on marked paths.

"We want visitors to enjoy the cave via the marked paths so there's minimal impact on its delicately balanced ecosystem," Neil said.

An abseiling chute has been constructed at the solution pipe entrance to Calgardup Cave, to prevent visitors trampling the sandy slopes adjacent to the pipe hole.

It is hoped the measures will stop the cave from further deterioration by visitors unaware of the vulnerability of the sensitive ecosystem.

## Wheelchair access at the Injidup Lookout

PANORAMIC views of Injidup Bay and Cape Clairault can now be enjoyed from a newly erected \$15,000 wheel-chair-accessible lookout at the Injidup car park.

In previous years Injidup had not been one of the District's favourite areas, with the controversial closing of the camping site in 1994, and constant vandalism to existing facilities.

However, the tide has turned, and surfers and fishermen are returning to the development, where they are now able to enjoy an unrestricted view of the whole bay.

Leeuwin-Naturaliste National Park ranger Bob Rickman said the redevelopment was necessary environmentally as well as being a bonus for the area.

"Sand dunes had eroded

about one metre in recent years because of increasing visitor traffic," Bob said.

"It is also one of the few completed sites with wheelchair access to coastal facilities along the Leeuwin-Naturaliste Ridge.

Universally accessible toilets were completed several years ago, and there will be a new set of steps to the coast as funds become available.

## Jeff's brave battle over

by Merv Smith

JEFF DAVIS, a popular member of the Forest Management Branch staff, passed away on the 26th of August 1996, aged only 40 years.

His death followed a brave fight against cancer.

Jeff began work at the Como office in 1990 with technical officer Pat Collins as his mentor. Jeff helped the three regional Forest Management Branch offices with maintenance of their Forest Management Information System (FMIS) databases.

He was also responsible for the annual update of the plantation area database.

Jeff assisted Pat with the presentation of this data in many formats for corporate management and annual re-



Jeff Davis

port purposes.

In 1994, Jeff was transferred to Kelmscott office, as user support officer, managing the Swan Region FMIS database.

This was at a time when a concerted effort was being made to classify all previously unmapped forest-related data on CALM land in the region.

The capture and valida-

tion of this complex data was an intricate and painstaking manual task that would have tried the patience of most people.

Jeff's ability to pay meticulous attention to detail, together with his easy going nature, stood him in good stead to tackle the task.

He was however, delighted with the Branch's implementation of more up-to-date technology.

Jeff enjoyed life and was particularly interested in travel, poetry and the quirks of the English language.

His passing has left a significant gap in the FMIS within this office, and he will be sadly missed, not only by this section, but by all the staff whom Jeff had helped.

Our sympathy goes out to his parents and his two brothers and two sisters.



Forest workers Mike Innis, left, and Mal Strange installing security grille at Calgardup Cave. Photo by Glenn Willmott



# Research achievement rewarded with CSIRO medal

A CALM team that wrote the definitive work on the plants of the Dampier Peninsula has been awarded the 1996 CSIRO Medal for Research Achievement.

The medal, one of only four awarded each year for excellence in Australian research or research leadership—and the only one awarded to people from outside CSIRO—was presented in Sydney recently.

The team included Kevin Kenneally of the Department's Corporate Relations Division, CALM volunteer botanist Daphne Edinger, and Tim Willing of the Broome Botanical Society.

The medal was awarded for the research leading to the publication of the book *Broome and Beyond: Plants and People of the Dampier Peninsula*, published earlier this year by CALM.

## Glowing citation

The citation that accompanied the award said:

"Broome and Beyond is a thorough, well-presented documentation of the flora of an area of Australia that has been paid little attention before.

"The book had its genesis in 1983 when botanist Kevin Kenneally published a 10-page plant species list for the Dampier Peninsula; 1983 also saw the foundation of the Broome Botanical Society, one of whose

aims was the protection of significant local vegetation.

"Kevin and Society members were acutely aware that the plant list represented a far from complete assessment of the region's then little-known flora.

"Society members began to undertake field trips to collect further plant specimens. Particular targets were ephemeral herbs of the wet season, grasses, remote coastal vine thickets, swamps and claypans.

"They believed it was imperative to meet with Aboriginal elders in Broome and outlying communities to document their often encyclopaedic knowledge of traditional plant uses, before such opportunities were lost forever.

"Diligent fieldwork over a decade by Tim Willing and Botanical Society members—especially Brian Carter, Paul Foulkes, Dave Dureau and John Martin—was enthusiastically shared and supported by Kevin Kenneally and his volunteer assistant Daphne Edinger.

## Data-based list

"Plant specimens were processed and forwarded Australia-wide for identification while the plant list was progressively updated and expanded, using a computer database.

"The results of their painstaking work are now



Kevin Kenneally, Daphne Choules Edinger and Tim Willing with their CSIRO medals. Photo by Irene Ioannakis

available in this high quality book, which was compiled with the help of grants from the Gordon Reid Foundation for Conservation (part of the WA Lotteries Commission) and from CALM.

"It contains descriptions and usages for more than 700 plants together with a wealth of colour photographs.

"The book is being promoted by the Bardi Aboriginal Community as part of their school curriculum, some of its botanical information has been incorporated into a 1996 Australian Nature Conservation Agency publication on wetlands in Australia and it also has contributed material to CSIRO's Interactive Rainforests Key and

the *Flora of Australia*. "*Broome and Beyond* combines the oral botany of Aboriginal-Australian traditional culture with the literate, scientific botany of European-Australian culture, in the spirit of national reconciliation.

"It is an excellent example of cultural interaction with the aim of im-

proving knowledge of our environment."

CALM Executive Director Syd Shea said the Department was particularly proud that recognition had been given to the book's authors.

"It is especially pleasing that the CSIRO medal acknowledges the work of volunteers such as Daphne and members of the

Broome Botanical Society, without whom production of the book would have been all but impossible," he said.

"The medal is also a major recognition of the contribution Kevin Kenneally has made over many years in terms of creating greater public awareness of the diverse and beautiful flora of the Kimberley."

## Bibbulmun update - keeping on target

IN PREPARATION for the summer construction season CALM took on three additional contract staff:

Noel Davenport is filling the role of field construction supervisor, one to which he is eminently suited, given his 20-odd years' experience with forest-based construction projects, both here and in Victoria, and his training as a carpenter.

Annie Keating, our special projects co-ordinator, has a position encompassing tasks as widely varied as establishing data bases, spread-sheets and financial reports, organising our merchandise package and assisting in the preparation of interpretive, marketing and promotional material.

## An old hand

Bob Dixon is an old hand as far as the Bibbulmun is concerned. Bob was formerly with the Ministry of Justice and co-ordinated their involvement in the project until his retirement some months ago.

The Ministry has been, and continues to be involved by providing prefabricated track facilities, which include shelters, picnic tables, and toilets, made and installed by minimum-security prisoners.

by Jesse Brampton

Bob has come to us on a part-time basis to co-ordinate our Corporate Sponsorship Program.

Men from the 13th Field Squadron of Royal Australian Engineers have completed two new campsites as part of a field-training exercise—the first of our new 'Deep South' design shelters at the Blackwood site near Southampton Bridge, and the Palings site, on the Donnelly River.

## A karri bridge

In addition, they have built a unique footbridge crossing the river near the Palings site, using a massive fallen karri as a stringer and spanning almost thirty metres from bank to bank.

Their outstanding work effort included several midnight finishes, aided by generators and floodlights!

The success of this venture brings great pleasure, as it further encompasses a wider involvement in the project, binding 'the track' into the culture of yet another community group.

My particular thanks go

to Dave Lathwell, CALM Kirup, and Paul Marsh and Tim Foley, CALM Manjimup for their assistance.

For two months, Dwellingup District has hosted a construction crew from Karnet Prison and dealt with some severe weather-orientated challenges.

Nonetheless, the Swamp Oak campsite is now almost complete, as is the 30-metre Playvins boardwalk and the Yarragil Brook bridge.

During much of the summer, the crew will be working behind Keith Harris from the District, on Project Kubota, cutting new trails both south and east of the town.

Work continues apace elsewhere in Swan and Central Forests Regions, as we head towards our 'Northern Half' deadline of May 1, next year.

The co-operation between District and Regional staff and crews, the project team, and various external contributors continue to be a hallmark of the project, and bodes well for our efforts to meet these deadlines.

Team spirit cannot be measured in dollars, but if it could the project would be rich indeed!



Rebecca Wolstenholme and Ann-Maree O'Callaghan, ready for action at the Enhancing Farm Habitats Display. Photo by Steve Toole

## CALM display draws big crowds

MIDWEST farmers showed great interest recently in CALM's 'Enhancing Farm Habitats' display at the Mingenew Expo.

Located in Agriculture WA's 'Protecting Our Agriculture' tent, the display successfully highlighted the increasing awareness of the need to integrate nature conservation into catchment and property development planning.

Archimedes, a friendly pet Major Mitchell cockatoo, and Stimp, a sleepy Stimpsons Python created a constant bottleneck of fascinated people around CALM's section.

On show were aspects of Mallefowl conservation, rare flora management, stunning samples of Midwest spring flowers, the decline of native mammals in farming areas, and a fe-

rocious-looking feral cat, secured safely in a cage (OK, so it was stuffed, but it did fool a few people hurriedly passing by).

Regional landcare ecologist for CALM in the Midwest, and main organiser of the display, Ann-Maree O'Callaghan, said that the aim was to visually demonstrate to farmers how diverse and special their farm habitats were.

Ann-Maree, who is working closely with farmers in the Midwest, said that the display highlighted the need to care for remaining farm bush, as it is essential habitat for rare and endangered plants and animals.

Midwest farmers showed great interest in the 'Enhancing Farm Habitats' display, paying particular attention to the numbat and cockatoo species.

With the spring nesting season under way for cockatoos, the display highlighted the delicate relationship between different cockatoo species and remnant vegetation.

The numbat, borrowed from the WA Museum, created confusion among some visitors as to exactly what it was. "It's a woylie," said some. "Nah, it's a chuditch," said others.

This gave CALM staff an opportunity to explain a little of the numbat's life history, the extent of its former range and its importance as Western Australia's mammal emblem.

Moora district conservation officer Rebecca Wolstenholme was also kept busy explaining her rare flora project.

Rebecca's knowledge and communication skills were

constantly put to the test explaining the difference between the extremely rare *Eucalyptus rhodantha* and the more common but similar-looking *E. macrocarpa*.

Geraldton district wildlife officer Kevin Marshall was up to his usual tricks, scaring some and charming others with the Stimpsons Python. One woman screamed so loud and ran so fast when Kevin tried to introduce her to Stimp that the entire Agriculture WA tent was on edge for a few hours!

The ruckus shook Stimp from his winter slumber and sent the up-until-then cuddly Archimedes on a neck-biting binge.

Notwithstanding these events, CALM's display was such a great success, a bigger and better one is planned for next year.



# The Hills Forest gets thumbs up from Ric



Ric Althuizen, left, and Stev Slavin discuss future modifications at The Hills Forest. Photo by Wayne Schmidt

**IF you ask Ric Althuizen what he thinks of the wheelchair facilities at The Hills Forest Activity Centre, be prepared for a glowing report.**

Ric, who carries out the important tasks of assistant budgeting officer in the Budget and Management Reporting section of Corporate Services Division, is a 'wheelie' and a member of CALM's Disability Services Committee, so he was ideally placed to put the facilities to the test.

The amphitheatre, and the showers at the campsite impressed Ric most of all.

"In the amphitheatre, you can sit alongside your friends, rather than being stuck out in front, which is what happens at other entertainment venues," Ric said.

#### Pleasant surprise

"And the showers at the new campsite, which is still under construction, were a pleasant surprise.

"In fact, The Hills Forest Activity Centre as a whole and the overall organisation shows that a lot of thought and sensitivity has gone into the planning, and most people, with varying degrees of disability would be able to join in and enjoy themselves there."

The Hills Forest Manager Stev Slavin said the campsite was designed to have non-segregated full access for people with a range of intellectual, sensory and physical disabilities, including multiple sclerosis and cerebral palsy.

"It's the first in Australia, and will be a model for other campsites throughout Western Australia," Stev said.

#### Full access

"The Hills Forest Activity Centre, Information Office and Resource Centre have all been designed for full access, and they are complemented by ensuring that activities in the Go Bush Program are designed to be enjoyed by a range of users, including those in wheelchairs.

"Ramps allow ease of access throughout the centre, and paths are to be laid around it and the adjacent campground, so that wheelchair and other less mobile visitors can move out into the neighbouring forest and enjoy it with ease."

CALM NEWS readers will soon be hearing more from CALM's Disability Services Committee, which plans to run workshops in providing for the needs of people with disabilities.

## Seedling production up

WESTERN Australia will further cement its role as the premier nursery of the nation's tree-planting industry as it steps up its seedling production to meet the increased opportunities for tree crops on the State's cleared farmland.

Advances through genetic selection and plant propagation techniques, and partnerships with private nurseries, will enable CALM to lift its capacity from 25 million plants a year to 40 million over the next three years, making it one of the biggest tree nurseries in the world.

Environment Minister Peter Foss said CALM would use the best genetic material from its tree-breeding program and the latest advances in propagation

techniques to produce 'elite' trees and increase the rate at which genetic gains were made available to tree farmers.

"For example, maritime pine and bluegums will be produced from genetically superior cuttings from 'mother plants' as well as the Department's seed orchards," he said.

"These mother plants are grown in hedges and kept pruned at a height of around 400 mm. This produces a bushy habit with many shoots to provide the cuttings.

"CALM will plant 126,000 maritime pine mother plants this spring. These plants will produce trees with 40 per cent greater volume growth than unimproved maritime pine stock.

"At the same time, a new generation of mother plants will also be produced, using controlled pollination techniques. The genetic gains from these plants will result in a more than 70 per cent improvement in growth.

"This will be of immense benefit to farmers in the intermediate zone with rainfall of between 400 and 600 mm a year who will be able to plant rapidly-growing maritime pine for timber production and to combat environmental problems such as rising water tables and the resultant salinity.

The department had leased an additional 20 hectares from a neighbouring farmer in Manjimup which would be used to produce seedlings.



Lotte Lent, left, and Karen Shaddock, right, show WA Naturally manager June Ellis the new Visitor Interpretation Manual, which they and Gil Field researched and wrote.

Photo by Verna Costello

## Gold Serif Award



LANDSCOPE, CALM's quarterly magazine, added to its laurels recently when editor David Gough and Director of Corporate Relations Ron Kawalilak received the Australian Gold Serif Award for their work on the magazine.

A Silver Serif was awarded to Advance Bank for their magazine Innovations.

Presented by the Society of Business Communications and the Australian Institute of Professional Communicators, the 1996 Serif Awards attracted a record number of entries from every State and Territory.

The citation with the award to LANDSCOPE said:

"The entry was simply a knockout. The judges were bowled over by this publication."

Ron Kawalilak and David Gough with their Serif Award Certificates

## New Visitor Interpretation Manual now available

by Lotte Lent

**EVER wondered how to design an interpretive sign, write an interpretive plan, develop a radio drive trail, or make the best use of an interpretive consultant?**

Well, you're in luck. CALM has recently published the *Visitor Interpretation Manual: Guidelines, Standards & Practices for Managing Recreation & Tourism*.

Initiated and developed by the Visitor Interpretation Section, the text was reviewed and edited by CALM staff and consultants working in the interpretive and environmental management field.

The result is a state-of-the-art publication, including guidelines for developing an interpretive plan, text for a display, a visitor centre prospectus, a consultant's brief, as well as templates for signs, and listings of current consultants.

The manual is written for interpreters, graphic designers, planners, and recreation and tourism managers, as well as consultants. It is an excellent reference volume for shire councils,

museums, and conservation agencies.

Contained within an attractive cloth three-ring binder, the manual includes two computer disks (for either Apple Mac or IBM compatibles) with templates of various management and interpretive signs and interpretive planning and development forms.

The manual retails for \$50 and is available from CALM's shop, *WA Naturally*, at 47 Henry Street, Fremantle.

For further information, contact the Visitor Interpretation Section at Como on (09) 334 0581.





A hands-on affair. From left Ken Dean, Gerrie Hayden and, second from right, Mark Ugle of the Southern Aboriginal Corporation (SAC) join Environment Minister Peter Foss, (centre) and CALM Executive Director Dr Syd Shea at a signing ceremony for the joint maritime pine plantation project between SAC and CALM.

## Staying alert, driving safely, getting home

By Linda Gilbert

**AN alert driver is aware of all that is happening around the vehicle, is able to think clearly, reacts accurately and as a consequence is under little or no stress.**

However, there are times when even minor ailments such as headaches or a cold can interfere with a person's ability to concentrate on, and take in, the behaviour of other road users.

Such a driver does not see as clearly and effectively, is more likely to miss warning cues, judgement is less reliable and reactions slower.

Many serious and fatal crashes are caused by drivers falling asleep at the wheel.

The actual extent to which fatigue contributes to the traffic crash picture is probably much higher than statistics indicate, because long before the driver actually becomes drowsy, fatigue can seriously impair driving ability—often referred to as 'inattention'.

The onset of fatigue frequently coincides with the onset of darkness, when visibility is greatly reduced and the risk of traffic crashes is high, even for the alert driver.

### Plan for travel

It is important that trips should be planned to avoid long hours of driving, that extend into the hours of darkness, particularly after a normal working day.

Weariness is likely to be felt more seriously when driving during the normal hours of sleep.

To delay the onset of fatigue, the vehicle's interior should be well ventilated, the driver should stop at frequent intervals and have a walk, so as to exercise limbs and stimulate blood

circulation. Small drinks of coffee, tea or water may be taken, but alcoholic drinks must be avoided.

Once fatigue has taken hold, nothing can improve a driver's concentration, there is only one thing a driver can do—**stop**—and take a complete break from driving.

If there is no co-driver, sleep is the only answer.

### Tell-tale signs

A driver is becoming drowsy if:

- the eyelids feel heavy
- daydreaming,
- traffic situations are mis-judged,
- vehicle speeds vary for no apparent reason,
- an overtaking vehicle causes surprise or alarm,
- the vehicle wanders to the road verge or over the centre line,
- there is a feeling of being cramped, and 'the fidgets',
- continual yawning can not be prevented,
- rash decisions are made due to impatience.

### Remember

A trip should be planned to include a good night's sleep beforehand.

If possible, a trip should start early in the day, and should not proceed into the night. Chances of crashing are much higher at night.

Regular breaks should be taken, getting out of the car and exercising, staying overnight in a town are wise moves.

If possible, the driving should be shared.

Maintain regular meal times—eating properly will ensure proper rest breaks.

Alcohol must not be consumed before driving or during rest breaks.

And remember, once fatigue has set in—

**Sleep is the only cure**

## Farm forestry provides long-term investment opportunity for SAC

**THE biggest Aboriginal resource agency in the State's South West is turning to farm forestry to help with landcare and provide an alternative long-term investment for future generations.**

The Southern Aboriginal Corporation has begun a two-year program in partnership with CALM to establish more than 500,000 maritime pine trees on almost 400 hectares of Ngullah Mia, a 5500-hectare farm run by the Corporation near Wandering.

Over the life of the 30-year plantation project, the Corporation would receive approximately \$1.1 million (in today's dollars) as its share of timber revenue from the trees.

The plantation is part of the Corporation's aim to provide benefits to Aboriginal people over the long term.

The pines have been strategically planted in blocks ranging from 2.5 to 45 ha so that the farm gains the landcare benefits such as lowered water tables without disrupting existing farm operations.

Environment Minister Peter Foss visited the farm recently where SAC chairman, Mr Mark Ugle and CALM Executive Director Dr Syd Shea formally signed a lease agreement between the SAC and CALM's Maritime Pine Sharefarms unit.

Mr Foss welcomed the Corporation's decision to diversify into farm forestry, particularly using a species such as maritime pine.

"Much of the recent emphasis on farm tree crops has focused on hardwoods such as bluegums in the higher rainfall zone or oil-producing mallees in the

drier wheatbelt areas," Mr Foss said.

"But, the intermediate zone where the rainfall ranges from 400 mm to 600 mm, has a tremendous potential in terms of wood-fibre production and using tree crops to help overcome environmental problems such as rising water tables and the resultant soil and stream salinisation."

Mr Foss said research by CALM had shown maritime pine could grow in the poorer soils that were not suitable for radiata pine or bluegums.

"As a result of 40 years of selective tree breeding, CALM's maritime pine strains can achieve growth rates of up to 16 cubic metres a hectare a year on good sites.

"This is quite a remarkable performance given the

rainfall in the eastern wheatbelt.

"Maritime pine produces a versatile timber, suitable for value-added products such as veneers, sawn timber, fence posts, power poles and panel products.

"Appearance-grade timber can be used for furniture and other joinery."

The plantings were being established under CALM's Maritime Pine Sharefarms Unit.

The unit was formed last year using compensation payments made for urban development in the Gngangara plantation at Ellenbrook north of Perth.

Members of the SAC carried out tree planting tasks on 260 ha this winter and would establish a further 130 ha under pines next year.

The trees were planted two metres apart in rows three metres apart.

Mr Foss said nearly 1000 ha of maritime pines had been established under sharefarming agreements with CALM in the past two years, and interest by private landowners was increasing.

"The 400 to 600 mm rainfall belt encompasses around 2.5 million hectares of farmland that is suitable for the species," he said.

"By integrating these trees into existing farm operations, rather than huge, continuous plantations, it would be possible to establish as much as 500,000 ha under maritime pines.

"A tree-planting program of this size would have enormous landcare benefits across a big tract of country.

"It also would provide farmers with a sizeable economic return over the 30-year life of the plantations."

## Erica Scott calls it a day

**ON October 31, former principal personnel officer Erica Scott officially retired from CALM.**

Erica was principal personnel officer for the whole of her period at CALM, which began in 1987, and was well known to most of CALM's staff.

After a pleasant luncheon with her colleagues from Human Resources Branch and a few select guests, Erica was guest of honour at a function held at Como late in the afternoon of her last day.

The large number of people who turned up to wish Erica well was testimony to the respect and affection in which she was held.

After a farewell speech from Human Resources manager Cliff Gillam on behalf of the Branch and Erica's friends at Como, Executive Director Dr Syd Shea also spoke warmly of Erica and her highly-valued service to CALM.

Erica's speech in response traced, with humour, her career in the public service and highlights of her time at CALM, not the least of which was her meeting with and eventual marriage to Alan Scott, a former HRB manager and long-serving employee of CALM and its predecessor the Forests Department.

Dr Shea presented both Erica and Alan with a pair of Valwood-crafted occa-

sional tables as an enduring memento of their time at CALM.

Regional manager John Watson, one of many who made the time to be present to wish Erica a happy and fruitful retirement, said, "It was a really moving occasion with excellent speeches all round!"

All at CALM wish Erica well in retirement, and once again express thanks for the excellent service and reliable professionalism which were hallmarks of her time with the department.

*Erica Scott responds to glowing speeches in her honour, with a pensive Cliff Gillam in the background.*  
Photo by John Watson





# Big Brook Relay celebrates its first decade



David (Doc) Meehan geared up to run the 10th Big Brook Relay. Photo by Tammie Reid

It was the 10th anniversary of the Big Brook Relay, and the biggest one ever, with 20 teams registered (although Dwellingup is yet to pay up).

As usual, much mirth and competitive spirit was on display, with two Crawley teams keenly taking part, three groups of Woodvale hopefuls and the far afield Midwest mob all out in force.

Saturday 16 November dawned with showers and high winds, but good luck prevailed to keep the whole day dry.

Not so lucky were Mal and Natalie Grant of Albany whose canoe was blown from their car roof, as they set out on their Pemberton journey. We're still not sure who actually tied the thing on!

This year's winners were the imaginatively named Woodvale Team One, which demonstrated great athletic skills to narrowly defeat the Swan Region Team, with Manjimup Science and Information Division team, aptly named 'The Rotters, Buggers and Burners', coming in third.

## Derriere award

The prestigious 'Derriere Award' was proudly received by the Midwest Team whose members vowed to return next year, keen to bestow the highly polished toilet seat trophy to the 1997 losers.

Another highlight saw Pemberton District organise and then win the tug-of-war for the first time ever (even though the event is termed The Pembi Challenge).

Of course, the whole thing was rigged, as was proved when Dwellingup organised and then won the volleyball competition.

Many teams are now calling their 1996 efforts a training run

by Tammie Reid

for 1997, so start your training program now and keep November 22, free for another CALM karri forest reunion.

David (Doc) Meehan was presented with a Big Brook Life Membership (which entitles him to absolutely nothing) in recognition of his dry, cutting-edge humour and tireless dedication to hassling people around springtime each year, by fax, phone, carrier pigeon, or any other state-of-the-art method of modern communication, to get them along to the Relay.

It was an award that was well deserved, and thanks must go to all CALM people in Perth who worked with David to set up such an enjoyable day.

Special mention must also be made of Rod Annear who played a major role in making the day a great success.

Rod returned from long service leave and housebuilding to co-ordinate a children's activity program so successful that it is to be incorporated in future Big Brook Relay programs.

As for the Dinner celebrating the relay's first decade in existence (known by some as the Decad(ent) Dinner, that too was a huge success, with 25 attending and seven staying overnight to enjoy a full weekend of the legendary CALM camaraderie.

Next year for sure CALM will book out the Camp School facilities and run a Saturday night dinner.

Whether they stayed for just the day, or the whole weekend, all agreed that the 10th Brook Relay was a great family event.

See you there next year!

## No rising from its ashes for this phoenix

CALM Kelmscott displays officer Michael Phillips is dwarfed by the ten-metre tall display at The Hills Forest Activity Centre.

The display, a phoenix bird, was built by English artist Phil Bews, one of the many contributors to a spectacular Fire Sculpture Evening.

The phoenix was ignited after dark, along with several smaller sculptures created by the Claremont School of Art and Midland TAFE College.

This dramatic scene was played out to the full-throated sound of 200 Hills Choir voices, and music and dance presentations by students from local primary and high schools.

According to Macquaries Dictionary, the Phoenix was: "A mythical bird of great beauty, the only one of its kind, fabled to live 500 or 600 years in the Arabian wilderness, to burn it-

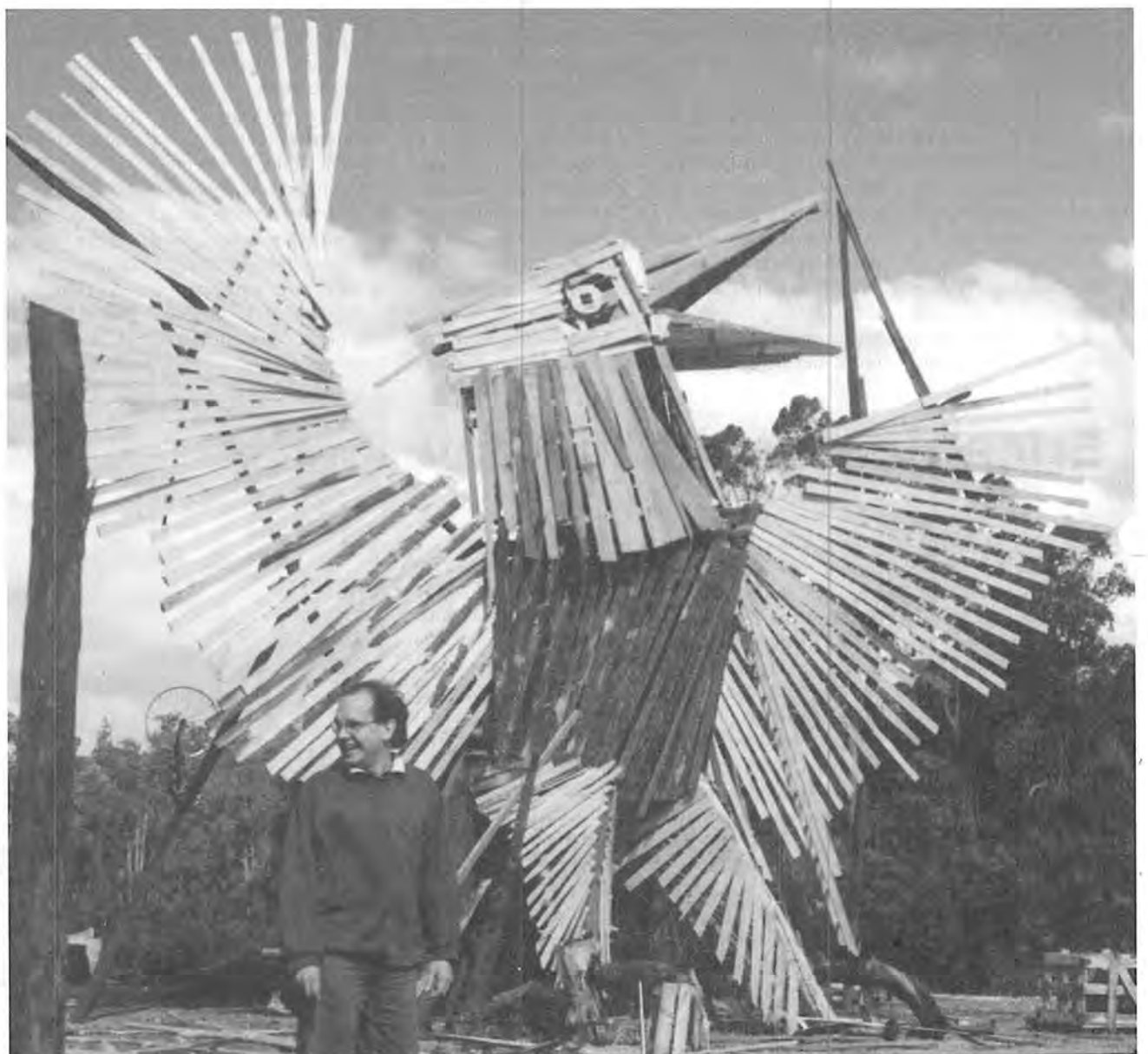
self on a funeral pile, and to rise from its ashes in the freshness of youth and live through another cycle of years (often an emblem of immortality.) A person or thing (of peerless beauty or excellence) that is restored after death or destruction."

The phoenix on display at The Hills Forest was used to symbolise forest regeneration.

While we know the forest regenerates, we regret to say that the phoenix set alight at The Hills Forest still gives no sign of its resurrection!

Sponsors of the Fire Sculpture Evening were Arts WA and Healthway Eat More Fruit and Veg, and was developed by CALM and the Mundaring Arts Centre.

CALM provided materials for sculptures, (tools, nails and so on), as well as five staff and 10 volunteers to handle the parking and ticket collection.



CALM Kelmscott displays officer Michael Phillips with the fire sculpture. Photo by Larisa Vanstien