

# CALM NEWS

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DEPARTMENT OF CONSERVATION  
AND LAND MANAGEMENT  
WESTERN AUSTRALIA FEBRUARY 1994

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT



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## CALM tackles burning issues



A flask of the chemical compound conocurvone takes pride of place before (left to right) Executive Director Syd Shea, Environment Minister Kevin Minson and Amrad Corporation Ltd General Manager of Business Development Barry Moore at the agreement signing ceremony. Behind them is a poster showing the molecular structure of conocurvone. Photo by Verna Costello

### World exclusive conocurvone contract

AN HISTORIC agreement to help conserve the State's native flora through the development of the pharmaceutical drug, conocurvone, has been signed.

In a joint announcement, Premier Richard Court and Deputy Premier Hendy Cowan said the agreement could bring the State more than \$5 million for research and conservation work.

Environment Minister Kevin Minson and Executive Director Syd Shea signed the contract with AMRAD Corporation Ltd.

AMRAD, an Australian company, has been allocated a world-exclusive licence by the US National Cancer Institute to develop conocurvone as a pharmaceutical drug.

The compound, which is derived from a smoke-bush plant found only in Western Australia, has

by Caris Bailey

shown promising results in initial tests for a treatment for the HIV virus.

Mr Court said although testing was only in its early stages, the agreement meant far more than royalties from any fully developed drug.

"What is so important is that the agreement ensures the involvement of WA scientists in the research work and it brings private sector investment for nature conservation," Mr Court said.

#### Significant precedent

"This agreement sets an internationally significant precedent and opens the way for other countries to benefit from their natural resources."

CALM has formed a

research consortium, including chemists, ecologists, biologists, virologists, horticulturalists, medical researchers, botanists and remote sensing specialists, to develop conocurvone to a marketable product.

The consortium, which is chaired by CALM's Director of Science and Information, Jim Armstrong, includes scientists from the department, WA universities and the government's Chemistry Centre.

The consortium has already made significant progress in studying the active chemical, its location and concentration in the target plant species.

An improved method of extracting the compound has also been developed and the group's work has enabled CALM to lodge six provisional patents since the middle of last year.

Mr Cowan said the recently amended CALM Act clearly affirmed the State's sovereignty and intellectual property rights in its wildlife.

"There have been too many examples of other countries reaping the benefits from our natural resources - just look at how many eucalyptus products Australia now imports," he said.

Mr Court said the CALM/AMRAD agreement did not mean others in the community would be denied all access to the smokebush and other plants under investigation.

"Aboriginal people, for example, certainly won't lose their access to bush medicines," he said.

"Far from locking up the resource, CALM can now ensure that all West Australians benefit from its use."

Continued page 6

THE outcome of the current independent review of the Department of Conservation and Land Management's fire management policy is critical to the security of the native hardwood forests and towns and properties in the South-West, according to CALM Executive Director Syd Shea.

"Even if the tragic events in New South Wales a few weeks ago had not occurred, the review also is particularly timely," he said.

#### Hazard level

"WA's South West has the world's highest bushfire hazard level because of its climate and tall forests that generate tonnes of highly flammable fuels and every year there is the potential for severe wildfires to break out."

The review was set up by Environment Minister Kevin Minson in line with the Ministerial Conditions for CALM's new forest management strategy.

It is headed by former Lower South West MLC Sandy Lewis.

Other members are UWA Associate Professor of Plant Ecology Dr David Bell and CSIRO's Bushfire Research Unit Principal Scientist, Mr Phil Cheney.

Dr Shea said it was possible to design and implement a system that would largely prevent the occurrence of big, intense and life-threatening forest wildfires.

But he warned against complacency and downplaying the critical role of prescribed burning in lessening the hazard of such wildfires.

"Opposition to prescribed burning is directly proportional to the time since the last catastrophic wildfire," he said.

Dr Shea said the opponents of prescribed burning had been mute in recent weeks.

"But before the NSW conflagrations, CALM had been subjected to a sustained attack by representatives of the volunteer conservation movement who described

CALM's fire management policy as an 'annual ritual that must stop'," he said.

"Another claimed the degree of protection from CALM's prescribed burning program was minimal and fleeting and that it carried severe ecological and economic impacts.

"However, not one shred of scientific evidence was produced to justify these claims."

Dr Shea said CALM recognised that people had a right to voice their views on the Department's activities.

"But, I have a responsibility to alert the broader community to the fact that the often vitriolic campaign has seriously affected our capacity to manage the bushfire threat," he said.

"It is difficult to sustain enthusiasm for this arduous and hazardous task when some members of the community take every opportunity to denigrate the practice and the people who undertake it."

He said CALM was not just a bushfire control agency.

"We are responsible for the sustained management

of the State's ecosystems and we would be betraying our legislative responsibilities if we undertook fire management practices that harmed those processes," he said.

"CALM's fire management practices continually are modified as more information becomes available but we are not prepared to change because of claims that are based on ideology and ignorance."

Dr Shea said he was proud of the Department's bushfire control record.

Because CALM was an integrated agency, this has been achieved at a cost of about \$3 million a year.

"But the level of bushfire security in the South West of the State has declined to unacceptable levels and will continue to decline if action is not taken," he said.

Dr Shea said that while the Department acknowledged the superb contribution of the volunteer bushfire brigades, it was critical that the broad community understood and supported fire management and the steps taken to lessen the hazard wildfires posed.

### Cape Arid addition

A BLOCK of land surrounded by Cape Arid National Park, 120 km east of Esperance, will be added to the park.

"This is the most important addition to the conservation estate in the south coast area for many years," CALM south coast regional manager John Watson said.

"The land can now be managed as an integral part of this magnificent park."

The block was bought by the Government earlier this month from a private owner.

"In 1976 the EPA Red Book recommended that the Government purchase the property, known as Gabtoobitch, for inclusion in Cape Arid, but at the time the family was

reluctant to sell," Environment Minister Kevin Minson said.

"It has been in the hands of the Crocker family since granting of the title early this century and I am delighted that the family gave CALM first option to purchase."

#### Important

The purchase was considered important for management reasons.

The only access was through very poor tracks in the national park, which are waterlogged for much of the year, so the risk of spreading dieback on these tracks was significant.

CALM will ensure that the historic significance of the site is maintained.



The NSW bushfire tragedy has had at least one positive result — it has made all of us realise that it is easy to become complacent.

Each year we face a potential hazard equal to what NSW faces every 10-15 years. We are being penalised for our success previously in major bushfires in Western Australia for more than 30 years.

You may have noticed that we have been trying over the past several weeks, through the media, to emphasise how extreme the bushfire threat is to the general community. I hope we have had some success, but unfortunately community awareness (and media attention) is inversely proportional to the time since the last major bushfire catastrophe.

Also unfortunately, there is a small section of the conservation movement which is running a deliberate and hypocritical campaign to denigrate CALM's fire control strategy and the people who implement it, including the thousands of volunteers from the bushfire brigades. I don't think anybody really has an appreciation of the ferocity of fires in the bush until they have experienced them.

I am sure the people in CALM who fight the fires and carry out the prescribed burns are not complacent and feel that they are forgotten.

I want to assure everybody in the Department, and particularly those at the 'pointy end' of fire control, that I know we have to get more resources and I am working on achieving that goal.

For what it is worth, I also want you to know I appreciate what an excellent job you are doing and I do worry about your safety.

There are many people who contribute to the success of our fire control program. Unfortunately, we have lost a person who made a major contribution for many years.

I will always remember Jean Collins' strong reassuring voice coming over the radio during many bushfire emergencies. Her death is a great loss to CALM. Jean was a great person who gave strength to many of us when things were tough.

Dr Syd Shea, Executive Director

## STAFF NEWS

### Appointments

**Harry Hercock**, Administrative Assistant, Pemberton; (promotion from Department of Agriculture). **Marian Barnard**, Officer, Bunbury; **Sharon Gilchrist**, Officer, Kalgoorlie.

### Promotions

**Mike Fitzgerald**, District Manager, Merredin; **Tony Sutton**, Planning Officer, Wheatbelt Region, Narrogin; **Peter Mapson**, Computer Programmer, Crown Law Department.

### Transfers

**Neil Taylor**, Parks and Recreation Officer, Busselton; **John Carter**, Senior Reserves Officer, Mundaring; **Tim Mitchell**, **Geoff Rolland** and **Mark Giblett**, Area Coordinators, Albany; **Barry Jordan**, Field Manager Sharefarming, Albany; **Terry Goodlich**, Ranger-in-Charge, Shoalwater Islands; **Sandra Van Brugge**, Coordinator Publications Section, Department of Environmental Protection; **Neil Worrell**, Area Coordinator, Albany; **Wayne Burton**, Area Coordinator, Esperance.

## CALM NEWS — FEBRUARY 1994

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# CALM and private enterprise pacts

**PARTNERSHIPS involving private sector investment in Western Australia's conservation estate were invaluable in developing the State's nature-based tourism industry, Premier Richard Court said recently.**

Mr Court said upgrading facilities in national parks and reserves in conjunction with private investors would generate profits that could be re-invested in conservation management.

Examples of these partnerships were the refurbished restaurant at Matilda Bay and new leases for four caravan parks — Coalmine Beach in Walpole; Hamelin Bay in the Leeuwin-Naturaliste National Park; Logue Brook Dam in Harvey and Waroona Dam.

### New investment

Collectively, these represented new investment totalling \$5 million.

"This investment reduces the demand on Government funds by making profits that can be used to cross-subsidise other programs, especially nature conservation," Mr Court said.

"It also means CALM staff can spend more time

with visitors as the commercial operations also extend to day-to-day activities such as grounds maintenance and rubbish collection."

The Premier said CALM currently spent \$20 million a year on tourism and recreation programs across the State, but the actual return was just \$1.5 million.

"The question is whether taxpayers will continue to meet the difference, especially when there is enormous pressure for Government funding in other areas such as schools and medical services," he said.

Mr Court said the lessees of the Matilda Bay Restaurant had spent \$2.5 million upgrading the complex, and a further \$1 million would be spent over the next three years.

CALM was preparing a master plan for the 20 hectare reserve following the release of a management plan earlier this year.

The master plan would outline improvements to the reserve in keeping with the fact that it had been a popular attraction for almost 100 years.

"The plan will maintain the beautiful simplicity of

the area and will reflect the various periods of the reserve's evolution over the past century," the Premier said.

"When the draft master plan is released this year, the public will be invited to comment before it is finalised, so that the facilities reflect the wishes of the people."

Mr Court said Matilda Bay was a model that would show the private sector how they could invest

profitably in conservation. "The Government particularly welcomes the investment by the private sector in the caravan parks," he said.

"Investment in these types of activities is not something in which the Government should be involved directly.

"Rather, Government should facilitate private investment that will generate funds for conservation programs."

Mr Court said the lessees would spend more than \$2.5 million on upgrading the parks. Works would include more campsites and caravan bays, chalets, cabins and other facilities.

"These partnerships also will build on Western Australia's tremendous natural advantage and encourage further nature-based tourism opportunities in regional areas," he said.



Concept plans for the Matilda Bay Reserve on the Swan River foreshore were unveiled by Premier Richard Court at a function at the Matilda Bay Restaurant just before Christmas. The Premier took time to inspect the restaurant which has been upgraded under a special leasing arrangement with CALM. Here he discusses the plans with restaurant manager Warwick Lavis.

Photo by John Hunter

## Public comment sought for plan

by  
Nigel Higgs

**A DRAFT management plan for the internationally-important Yalgorup National Park has been released for public comment.**

The Yalgorup lakes are part of the Peel-Yalgorup system and recognised under the Ramsar Convention as a significant wetland for migratory waterbirds.

### Living fossils

The lakes, which include Clifton and Preston, are habitat for shelducks, musk ducks, black swans and migratory waders. Lake Clifton also has "living fossils" — stromatolites and thrombolites.

The draft plan was prepared by the Department of Conservation

and Land Management on behalf of the National Parks and Nature Conservation Authority.

It was released by Murray MLA Arthur Marshall at a function at Martin's Tank Lake camping ground on December 21.

The park, that runs along the coast from just south of Mandurah to Myalup, has high conservation, scientific study and education values.

The park's stands of tuart and peppermint trees are in very good condition and areas have been identified as possible sites for reintroducing native animals such as the ring-tail possum.

The park is popular for birdwatching, bush-

walking, picnicking, sightseeing, camping and photography.

### Restricted areas

Boating and other water-based activities are confined to restricted areas of Lake Preston.

It will play an increasing role in providing recreation activities in a natural setting as Mandurah and other centres grow.

Key management issues include horse riding, weed control, feral animals, water quality, catering for visitors' needs and the consolidation of the park's boundaries.

The park is almost 13 000 hectares, and stretches along 55 km over five different parcels of land.

Consolidating the park and making it more continuous will increase its viability for conserving flora and fauna.

It is proposed to add areas of State forest east of Old Coast Road to the park as well as local government reserves with high conservation values.

There is concern that nutrient levels in Lake Clifton might be increasing, threatening the stromatolites.

The draft plan elaborates on State and local government policies that restrict drawing down groundwater levels and maintains fringing strips of

native vegetation to filter nutrients from reaching the lakes.

The proposals also cover walk tracks, vehicle access and visitor facilities such as lookouts and camping sites.

The plan has been released for public comment for two months.

### Submissions

Submissions should be sent to the Executive Director, Department of Conservation and Land Management, PO Box 104, Como 6152.

Submissions should be marked attention Plan Coordinator, Yalgorup National Park Draft Management Plan.

## LETTERS TO THE EDITOR...LETTERS TO THE EDITOR...LETTERS TO THE EDITOR

Dear Dr Shea

Thank you for your expression of support and offer of assistance during the recent bushfire crisis.

We were overwhelmed by the support and assistance offered from a variety of sources, but

particularly from our sister agencies interstate. I look forward to being in a position to reciprocate at the appropriate time.

In the event, we believe we have been very fortunate in that the damage and impact on our forests have been contained to a very reasonable level considering the risk and extent of fire. In excess of 100 fires burned (but not necessarily started) on State forest, covering an area of about 90,000 hectares.

Preliminary estimates suggest severe damage (crown fires) is restricted to perhaps as little as 15 000 hectares. We lost only 50 hectares of softwood plantation, of

marginal value, while about 110 hectares of eucalypt plantations were burned, mostly at low severity.

Many fires on State forests were quickly contained, as a result of the efforts of our well-trained and experienced permanent staff, along with excellent cooperation from local and interstate bushfire crews. The hazard reduction burning carried out in recent years, coupled with reasonable access to most areas of State forests, contributed to this early containment.

By far the most unfortunate outcome has been the injuries sustained by one of our employees who suffered severe and

extensive burns when his vehicle was overwhelmed, and subsequently destroyed, while he was responding to a call for assistance. He is a trained and very experienced fire-fighter and survived by maintaining the self-discipline to stay in the vehicle for as long as he was able. We look forward to his speedy recovery.

Thank you again for your support. I am sure there will be lessons for us all, as events are documented, analysed and enquiry reports are completed.

Kind regards  
H Drielsma  
Managing Director, State Forests of New South Wales

Dear CALM (Pemberton),

We have just returned from a week in the forests. We actually stayed at the Pemberton Caravan Park. We were out every day.

The reason I am writing is to tell you all down there that we want to thank you for the work you have done.

Everywhere we went (nearly all the forests) the facilities were there.

We know it is your job to do these things but still thank you. Loved the Big Brook Dam, the tram ride — all of it was lovely.

Sincerely  
Mr & Mrs F & S Davies  
Balga  
PS: The Tourist Bureau is also very good.



## Accident-free 3 years by 60 staff = award

STUART Hunter, the mechanic-in-charge at Dwellingup is pictured above as he updates the safety statistics recording more than three years worked by more than 60 people without a lost-time accident.

Stuart and his staff at the workshop were recent monthly award winners in recognition of their undertaking, without incident, a heavy workload of maintenance and repairs.

### Ready for anything

This meant machinery and vehicles were kept in readiness for any fire situation that occurred - and there were many!

Stuart said he was proud of the workshop team's performance.

"It's been more than 15 years since we had an accident in our work environment," Stuart said.

"We make sure we maintain good house-keeping; all gear and equipment in its place and in top working order.

"Motor mechanic John Downey and I are volunteer ambulance officers so we're both trained and able to assess likely risks and hazards. "We are always communicating with each other and watching out for hazardous situations."

At present, John Chapman completes the workshop team, working as a trade assistant to Stuart and John, at other times carrying out forest workman duties at fires.

John has been a safety representative for six years and also maintains the fire equipment and services all vehicles, pumpers, portable pumps and generators.

Stuart also pointed out that only CALM staff, trained in using the

equipment, are based at the workshop.

"By maintaining a safe work environment, we reduce the pressure on ourselves when there's an emergency," Stuart said.

### Commitment

"Sometimes we must provide workshop services out in the forest but we have the same totally committed attitude out there as we do back at Dwellingup Headquarters.

"We also rely on the experience and knowledge of the overseers and crews, because they know the forest situation - it's their working environment - and they help us by being on the look-out for hazards.

"I firmly believe in the team approach to safe working conditions."

• Photo and story by Tammie Reid

## To absent friends ...

A WRYLY amusing postscript to the *Food for the fighting fit* story at top right of this page, was that recipients of the awards presented by the Nannup Health and Safety Committee were called urgently to fight a fire at 11.00 am - and missed both the luncheon and the presentation.

The other three fire-fighting crews, however, were more than willing to consume their colleagues' share of the luncheon and to bask in the reflected glory of their awards.

The Best Team Award for 1993 went to CALM Nannup logging crew, comprising: Frank Colyer,

Jack Kenbeek, Phil Spencer, Martin Scantlebury, Mark Graves, Jaron Creasey, Brad Ellis and Carl Beck.

The Best Individual Award went to overseer Raymond (Muscles) Marlow.

Both Best Team and Best Individual Awards were won on a monthly points system voted on by a committee which awarded points from one to ten for the team or individual who developed a new workable safety procedure.

At the end of 12 months the monthly points were added together and the team and the individual

with the highest number of points won the appropriate awards.

Four special commendations went to Steve Winfield, Robert Buckley, and brothers Brian and Keith Pears, who were there to receive their awards.

The day's program included videos on safe farming practices, featuring popular Australian rules football identity Barry Cable, and safe lifting techniques (feet apart, knees bent, and so on).

Mandy Davies of the Bridgetown Cancer Foundation spoke on skin cancer and the importance of putting the slip, slop, slap slogan into practice.

# Food for the fighting fit

by Carol O'Reilly

A SAFETY Awards Day in December gave Nannup district office staff an opportunity to put all they had learned about healthy nutrition into effect.

The buffet meal, voted highly satisfying and sustaining for all participants, included dips with sour cream rather than cream cheese, and without the preservatives, artificial colouring and flavouring found in most commercial dips.

Instead of biscuits, vegetable sticks comprising celery, carrot, broccoli and cauliflower were offered.

Advantage was taken of the seasonal stone fruits and melon varieties available locally.

A pleasant discovery was that healthy eating is cheaper than the conventional lunch menu, and it is hoped the trend will eventually permeate everyday eating habits, both in and outside the workplace.

One tiny sin was committed - Christmas cake, but it was a very fruity cake, so everyone quickly absolved themselves of the accompanying guilt!

The buffet was a follow-up on the lunchtime demonstration a few months earlier by Busselton Health Department promotions officer John Colquhoun and the publication of *Fueling up to Fight Fires*, by the Health Department's South West Regional dietitian Carol Turner.

less fat, less protein, more carbohydrate and more variety, and emphasising cereals (including bread), vegetables, salads, fruit and reduced quantities of fresh or frozen meat.

If possible, forget the chicken and chips!

Already prepared, packed and frozen meals are recommended to be taken in insulated containers direct to the fire-

fighters, as each must be provided with a substantial, balanced meal every five hours.

Cold water is the ideal choice to prevent dehydration.

After the December luncheon the Nannup Health and Safety Committee presented the safety awards (See *To absent friends ...* below left).



Clerical officers Emma Higgs (left) and Carol O'Reilly 'viewing the victuals' at the Nannup health luncheon. Photo by Phil Spencer

## In memory of Jean Collins

by Gerard van Didden

THE boundless energy and vitality that so characterised Jean Collins will be among the many good memories treasured by all who knew her, long after her passing.

Jean was only 58 years old when she died at home, after a valiant battle with cancer, on December 16, 1993. Throughout her life she managed to pack in a breadth and depth of experiences accomplished by few and only dreamed of by others.

She believed that life, however brief, was for living.

Jean married farming contractor Arthur Collins at St Stephen's Presbyterian Church, in Applecross in 1955 and the couple moved to Narrogin where they raised their family of three sons, Lance, Duncan and Norman.

It is now more than 17 years since Jean started her career as a clerk with the Forests Department at Narrogin in October 1976.

John Humphreys was the district forester-in-charge at that time and Jean quickly made a name for herself with her efficiency and cheerful demeanour.

The story goes that visiting officers en route to Narrogin would be asked

Arthur moved into contract lawnmowing, while Jean transferred into the Fire Protection Branch. Jean quickly slipped into harness and proved to be a tireless and efficient worker.

Over the next 10 years those who worked with her were encouraged by her support, enthusiasm and friendship.

In recognition of Jean's increasing level of responsibility, carried out with competency and enthusiasm, she was reclassified to Level 3 administrative assistant in

December 1991.

Outside work, Jean enjoyed her family and outdoor activities, including aerobics, swimming, camping and exploring in the family's four-wheel drive.

In spite of her deteriorating health, Jean and Arthur were determined to make the most of life and embarked on a twelve month touring holiday around Australia, returning in late November 1993.

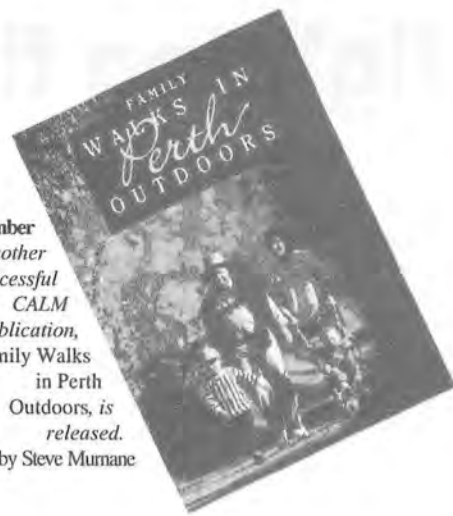
Jean will be sadly missed by all who knew her and our sympathy goes to her family in its loss.



The late Jean Collins. Photo courtesy The West Australian

# DEPARTMENT OF CONSERVATION NINETEEN NINETY T

December  
—Another  
successful  
CALM  
publication,  
Family Walks  
in Perth  
Outdoors, is  
released.  
Photo by Steve Mumane



## January

- Unscheduled marine mammal strandings continue as a crab-eater seal (which is a bit of a misnomer as it lives on krill not crabs), normally found on the pack ice in Antarctic waters, is found on a Mandurah beach.
- A wildfire is brought under control by CALM officers and volunteer Bush Fire Brigades in Roleystone.
- An abandoned stolen car is set alight causing destruction of about 80 hectares — most of it through sheoaks and banksias — in the Neerabup National Park, north of Wanneroo.
- For the second year in succession, CALM postpones a burn in tingle forest in Walpole-Nornalup National Park, rescheduling it for autumn in the hope of better weather conditions.
- CALM wildlife officers come to the rescue of an injured wedge-tailed eagle found with a clipped wing and a leather collar fitted to one leg, the apparent legacy of a failed attempt by someone to train it for falconry purposes. Being unable to fend for itself, the bird was doomed to a lingering death from starvation.
- Arson suspected in Yalgorup National Park as smoke from four separate fires is spotted. More than 50 hectares are burnt out.
- Friday January 29, a rockhopper penguin from the sub-Antarctic, which stranded on the south coast, is released in the waters off Albany.



January — Technical officer Rick Giles helps volunteer Helen Williams measure transpiration of jarrah leaves with a porometer.  
Photo by Barb Giles

- CALM volunteers help staff with research to more fully understand how jarrah forests tolerate drought.

## February

- Another sub-Antarctic visitor — this time an emaciated furseal which strayed to Yanchep and recuperated at Underwater World, is released at Augusta.
- A crocodile warning for the Kimberley region is issued by CALM following flooding in the area.
- Bushfires burn through Stokes National Park, 80 kilometres west of Esperance. The fires, started by lightning, burn out more than 8000 hectares including part of the historic Moir Homestead, jointly managed by CALM and the National Trust.
- CALM scientists examine the values of an enormous Kimberley mudflat, inhabited by wading birds, mangroves and saltwater crocodiles, to see if it should be incorporated into a conservation reserve.

- Environment Minister Kevin Minson announces the rediscovery of *Tetraria australiensis*, a sedge previously thought to be extinct. The sedge was found by CALM botanist Greg Keighery while surveying remnant bushland east of Mundijong.
- Firefighters from CALM, armed with just hand tools, fight to stop a fire in the Nuyts wilderness area of Walpole-Nornalup National Park.
- Young Aboriginal people are given the chance for hands-on experience in nature conservation projects, thanks to a program funded by CALM and jointly developed by the department and Aboriginal groups and communities.
- Shell Beach, a unique stretch of coastline about 150 kilometres long at Shark Bay, is gazetted as a conservation park.
- CALM's Director of Science and Information Division Jim Armstrong calls for a public apology from the President of the Conservation Council of WA regarding allegations of censored scientific papers.

## March

- The first day of the month sees CALM firefighters battling yet another wildfire burning about 15 kilometres north-east of Wanneroo.
- A new underwater nature trail is established in Marmion Marine Park. The trail, at Little Island, is the second in the park following the opening of the first at Boyinaboat Reef.
- Sharks are thought to have attacked Monkey Mia's famous dolphins twice in less than a week. Following an initial attack on three-year-old Finnick, an 11-week-old calf disappears. This is not an unusual occurrence, as research at Monkey Mia suggests that at least 50 per cent of newborn dolphins are taken by sharks over the summer months.
- *Managing Your Bushland*, which provides comprehensive guidelines for managing remnant bushland, is released. Launched to coincide with Landcare Month, the book offers advice on controlling problem plants and animals, regenerating bush, appropriate use of fire and managing wildlife habitats.
- A suspected outbreak of botulism or algal poisoning at Lake Toolibin, claims the lives of hundreds of water birds.
- March 10, and CALM's wildlife operations receive a significant boost, with the launch of *Pseudorca II*, a twin-hulled vessel just under eight metres long.
- A powerful blow from a harpoon-like instrument claims the life of 38-year-old dolphin, Serena. Serena, in an advanced state of pregnancy, is found dead in Leschenault Inlet.
- Western Australia's first cockatoo amnesty produces a good response with 100 phone calls from the public and several cockatoos, including white-tailed black cockatoos, galahs and a Major Mitchell, are handed into the department.

- Two Peoples Bay Nature Reserve, east of Albany, is proposed as a national park.
- Malleefowls are discovered in WA's south east forests for the first time in more than 40 years.
- Environment Minister Kevin Minson releases five new koalas, including the first males of the new breeding colony, flown over from Kangaroo Island in their new home at Yanchep National Park.
- Environment Minister Kevin Minson announces a four-member committee to advise on the safe, sustainable level of native forest harvest for the next 10 years.

## April

- The theme of Seaweeek 1993, *Cleaning Up Our Coast*, has volunteers turning up to collect and remove litter from the shorelines of the islands off Rockingham.
- Environment Minister Kevin Minson visits Ningaloo Marine Park during Seaweeek to see the annual whale shark migration. Tourists from around the world have come to see the whale sharks, which are protected under the Wildlife Conservation Act.
- *Go Bush*, a series of bush activities offered to the public, enters its fourth year.
- Damage and degradation of facilities at Injidup, in the Leeuwin-Naturaliste National Park leads to the closure of its overnight camping there. CALM is committed to substantial upgrading and repair work of the popular recreation site.
- April 13, and a \$60 000 shipment of West Australian sheoak furniture, leaves for Italy. This is an important milestone under the 1987 Timber Strategy — where the emphasis was on the need to add value to WA timbers and to make the best possible use of this unique resource.
- CALM appoints well-known local identity Sam Lovell as Aboriginal tourist development officer for the Kimberley region.
- A two-year biological survey and fox control program, aimed at protecting populations of chuditch, southern brown bandicoots, mardos, brush-tailed phascogales and carpet pythons, is announced for the Hills Forest.
- Problems caused by big numbers of aggressive seagulls in the metropolitan area are targeted in a joint plan by CALM, local authorities, Rottnest Island Authority, Perth Zoo, Murdoch University and the RSPCA.

## May

- Volunteers working in environmental areas as diverse as marine turtle research, wildlife rehabilitation and cave management are honoured by Environment Minister Kevin Minson. More than four million volunteers Australia-wide provided essential services to the community such as firefighting, running emergency services and caring for injured wildlife.



June — After 10 years' intensive research, CALM principal research scientist Bryan Shearer and Technical officer Richard Fairman identified the chemical compound phosphonate to help fight dieback disease. Richard, pictured above, uses a hydraulic injector to treat a banksia.  
Photo by Peter Ramshaw, courtesy *The Australian*

- The Yanchep koalas are named Matilda, Acacia, Swag, Bindo and Banjo, following a competition to name the new arrivals from Kangaroo Island.

## June

- Delicate mountain bells and orchids, unique trapdoor spiders and the abundant honey possums of the Stirling Range National Park feature in new CALM book, *Mountains of Mystery*, launched by Environment Minister Kevin Minson, in Albany.
- The *LANDSCOPE* Conservation Visa Card — launched in Forrest Place. Whenever the card — featuring a numbat on the front — is used anywhere in the world the R & I Bank places a percentage of the money spent in a trust fund to be used to protect the State's endangered species. CALM recovery plans already in place for endangered species have led to dramatic increases in population numbers.
- Television personalities Peter Holland, Yvette Mooney, Christina Morrissy and Greg Pearce join CALM rangers in giving away more than 5000 tree seedlings to mark Arbor Day 1993 on June 11. The trees were given away at several major shopping centres in Perth and Bunbury. The seedlings were some of the record 18 million grown at CALM's Narrogin and Manjimup nurseries in 1993.
- Phosphonate is lauded by Environment Minister Kevin Minson as a safe and effective method of controlling dieback disease in areas of high value.
- Executive Director Syd Shea announces that CALM researchers will study the effect of fox predation on red-tailed phascogales in nine Wheatbelt reserves. Foxes are thought to be the main culprit in the disappearance of this, one of our rarer and most attractive animals.
- A new management plan prepared by CALM is introduced to ensure wild boronia is not over exploited. Most of the blossom harvested is sent to the eastern states, where oil is extracted for use in food flavouring and flower sprays are gathered mainly for the local market.
- Executive Director Syd Shea tells the Northern Australia Development Council conference in Exmouth that WA's north can generate an extra \$100 million a year from nature-based tourism. He says properly managed nature-based tourism is an essential partner in achieving the department's conservation mission.
- Vacant SECWA-owned land east of Collie is announced as the site of a hardwood plantation in an innovative agreement between SECWA, CALM and Hansol Pty Ltd, a major Korean forest product company. The plantation is the first stage of a \$30 million agreement by Hansol to plant 10 000 hectares of bluegums in the South West over the next 10 years.



August — Environment Minister, Kevin Minson and Director Syd Shea after the Minister launches Forest Awareness Week on Tuesday, 2.  
Photo by Verna Costello

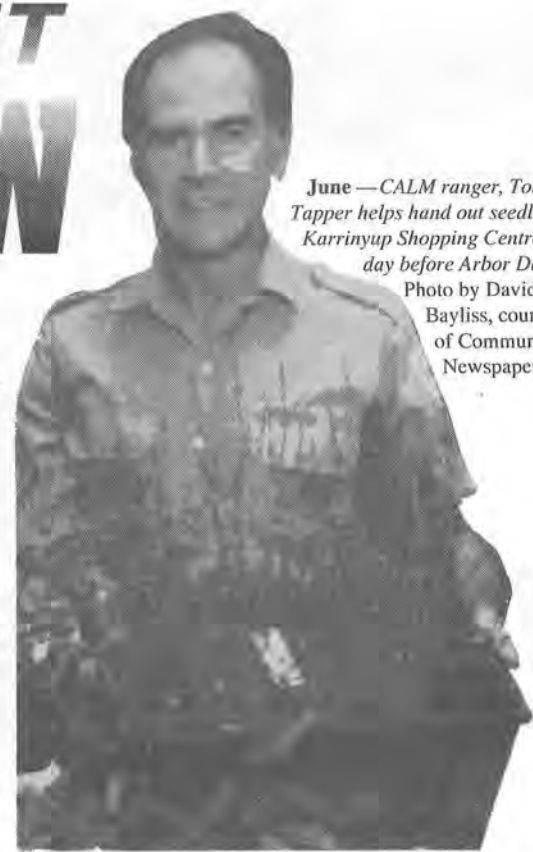
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# ATION AND LAND MANAGEMENT Y THREE in REVIEW



June — CALM ranger, Tony Tapper helps hand out seedlings at Karrinyup Shopping Centre, the day before Arbor Day. Photo by David Bayliss, courtesy of Community Newspapers

## July

- Yanchep National Park hosts a celebration of Aboriginal culture coinciding with National Aboriginal and Islander week from July 5 to 11.
- A two-metre saltwater crocodile is captured in Lake Kununurra. It is the first confirmed sighting of an estuarine crocodile in the lake since the diversion dam was built 30 years previously.
- Executive Director Syd Shea welcomes the conservation movement's endorsement of CALM's tree plantation strategy. The report, released by the Western Australian Forest Alliance, picks up on the work CALM has undertaken in the past 10 years to stimulate the development of hardwood plantations.
- The Hills Forest project, less than 40 kilometres from Perth, reaches a further milestone in its development. A 1.5 kilometre Weir View Walk taking in views over Mundaring Weir, split rail fencing and wooden decking around a King Jarrah tree are completed following a 26-week joint venture between CALM and Westrek.

## August

- *Kangaroo Paws and Catspaws*, written by former CALM senior research scientist, Stephen Hopper, is added to the growing list of quality CALM publications.
- Following the report of an advisory scientific committee, Environment Minister Kevin Minson sets the annual timber cut from native forests. The Minister also announces that WA is well ahead of schedule to reach its 30-year target of 124 000 hectares of tree plantations on public and private land by the end of the century. 108 800 hectares are now under pines and Tasmanian bluegums.
- Feral cats are targeted in a new \$60 000 program aimed at protecting WA's wildlife. Feral cats and foxes were the biggest threats to the State's small native animals.

## September

- A new boat tour that gives visitors an Aboriginal perspective on Geikie Gorge National Park in the Kimberley begins operating. The five-hour tour, a joint venture between the Ingunaya Aboriginal Corporation of Fitzroy Crossing and CALM, provides a more intimate glimpse of the park through the eyes of the traditional owners of the gorge.
- The State budget is brought down including CALM's allocation of \$121.2 million. These funds allow for the continuation and development of a number of projects to develop new export market opportunities. Premier Richard Court states that WA has a tremendous natural advantage in its diverse environments and unique wildlife.
- Wood Utilisation Research Centre (WURC) Open Day is held.
- General Manager Roger Underwood delivers the opening address at the *Landscape Fires '93* conference hosted by CALM and the Bush Fires Board in Perth, stating that fire is the single most controversial and demanding issue facing land management agencies in Australia.
- A new nature-based tour, which gives visitors hands-on experience in helping forest managers find out more about WA's wildlife, is launched in the South West. Called the Nannup Forest Experience, the tour is a

collaborative effort between the Nannup Tourist Centre and CALM and includes a night-time display of wildlife in natural surroundings.

- *LANDSCOPE* makes a clean sweep of WA's prestigious Alex Harris Medal awards for environmental writing. The winning article was written by Chief Wildlife Officer Dave Mell and co-author John Wetherell of Curtin University's School of Biomedical Science, *To Catch A Thief*, about DNA fingerprinting aimed at disproving claims by unscrupulous bird breeders that they can breed rare species of cockatoos. *LANDSCOPE* editor David Gough is commended for his article on breeding programs to improve pine trees in WA. Wildlife officer Trevor Walley and WA Museum head of anthropology Peter Bindon also receive a commendation certificate for *Hunters and Gatherers*, an article on the use of plants and animals in the south-west by Nyoongar Aborigines.
- A man dies as his 14-year-old son drives him on a mercy dash back to Collie after a tree he was illegally cutting down in the Lane Poole Reserve near the King Jarrah Track, falls on him.

## October

- Premier Richard Court launches a \$5 million public and private sector project to upgrade Yanchep National Park.
- General Manager Roger Underwood says the Conservation Council's claims concerning prescribed burning programs in the forest are grossly misleading and do not acknowledge the vast amount of scientific research into fire and its impact on the environment.
- Claims by the Conservation Council President, Beth Schultz, of a 'new' ecological disaster in the jarrah forest near Jarrahdale are nonsense, claims Environment Minister Kevin Minson. The small area of forest was in fact recognised more than 10 years previously as being an area subject to mass collapse as a consequence of *Phytophthora cinnamomi* infections.



September — Stores Officer, Neil Moore, peruses the Spring 1993 issue of *LANDSCOPE*. Photo by Verna Costello

- Two men appear in the Perth Court of Petty Sessions for sentencing in relation to charges of taking forest produce without a licence. The two are given community service orders totalling 280 hours instead of \$6 000 in fines. CALM staff spent two weeks and employed careful detection techniques to nab the men.
- The facilities at Penguin Island in Shoalwater Bay near Rockingham are re-opened following substantial upgrading during winter.
- A draft management plan for the Monkey Mia Reserve in the Shark Bay World Heritage Area is released for public comment.
- *Lookouts of the Karri Country*, written by former long-time Warren district identity and local Member of Parliament, Dave Evans, is published by CALM. The book covers the evolution of using trees as lookouts and is sprinkled with anecdotes that give an insight into the skill — and sheer courage — of the men who climbed 60 metres above the ground to lop the tree crowns and build the tiny cabins.
- Manjimup district employees notch up 12 months without lost time from accidents.

## November

- As part of the Earth Caretakers environmental education program sponsored by CALM, 31 visiting Malaysian children discover the basic ecological concept of energy flow from the sun to plants and animals.
- The Supreme Court rejects accusations that CALM withheld information from the new forest management plans. Mr Justice White also rejected what he called "sinister implications" made by the South West Forest Defence Foundation.
- The future of a permanently-based spotter plane in the Eastern Hills is brought into question following a break-in.
- Legislation ensuring that financial benefits from chemicals derived from native plants flow to WA is introduced and later passed in the State Parliament. It covers the development of the promising new drug from a WA plant which could combat the HIV virus.
- Premier Richard Court announces details of an historic contract for the purchase of six WA designed and built Eagle X-TS aircraft as CALM fire spotter planes.
- Cabinet endorses a strategy to form park councils and advisory committees involving Aboriginal representatives for the Purnululu National Park near Halls Creek in the

Kimberley and Karijini National Park in the Hamersley Range in the Pilbara.

- The open season on birds causing damage in farming and pastoral areas is extended for three species of parrot.
- Five numbats are flown from Perth to an Adelaide sanctuary in order to re-establish the animals in South Australia where they have been extinct for 60 years.
- One of Australia's biggest native wildlife recovery programs is announced — CALM plans to boost Operation Foxglove to cover almost 500 000 hectares in the northern jarrah forest. Controlling fox numbers will help ensure the survival of native animals under severe threat from the predators and will also allow species which have become extinct locally to be reintroduced.
- CALM fire crews, with help from local brigades, Alcoa and the State Emergency Service fight two fires in the Dwellingup area.
- Holey Fin, mother and grandmother to many Monkey Mia dolphins, gives birth to another healthy offspring.
- Manjimup Regional Herbarium opens.
- CALM signs an agreement with the Oji/Itochu companies of Japan and the Hansol company of Korea for the department to manage massive tree planting projects which will result in a \$90 million investment over the next decade.
- An ambitious plan to promote the Kimberley as a nature-based tourism destination — with associated benefits for local business and residents — is adopted by tour operators. Developed by CALM and the Tourism Commission, the Ibis Aerial Tourist Highway is now being marketed.

## December

- Environment Minister Kevin Minson announces plans to construct a boardwalk to protect Shark Bay's unique stromatolites at Hamelin Pool.
- *Family Walks in Perth Outdoors*, featuring a walk for every week of the year, is launched at Star Swamp.
- A second calf is born to Nicky, one of the Monkey Mia dolphins and the second birth in less than a week. Nicky is the daughter of Holey Fin, who gave birth just days earlier.
- CALM builds a new boardwalk and boot-cleaning station in Stirling Range National Park to keep Mondurup Peak free of dieback disease.
- CALM officers go spotlighting at Port Hedland in an effort to confirm crocodile sightings in the area.
- Environment Minister Kevin Minson announces an independent three-person panel to review CALM's prescribed burning policy, with invitations for written public comment.
- A draft management plan for the internationally-important Yalgorup National Park is released for public comment.
- December 22 and an historic agreement is signed to help conserve WA's native flora, at the same time allowing the development of a new pharmaceutical drug for the possible treatment of AIDS.
- Premier Richard Court announces agreements with CALM and private operators at Matilda Bay Restaurant, Logue Brook, Waroona, Hamelin Bay and Coalmine Beach caravan parks. The agreements mean major private sector investment in tourism infrastructure at these sites.
- Strong, north-easterly winds cause concern for firefighters in Shannon National Park. In a matter of hours, their fears are allayed as southerly winds allow edge burns to be effectively carried out. Nevertheless, the fire which was started by lightning, claims more than 13 000 hectares of bushland.
- December 31, the last day of another difficult, yet active year for the department. The main news for the day is the discovery of what appears to be an oil slick at Ningaloo Marine Park. The band of discoloured water turns out to be an algal bloom.



November — Left to right: Director Itochu Australia Perth Mr Kosaka, CALM Executive Director Syd Shea and Project Manager Gary Inions and Albany Plantation Forest Company of Australia Pty Limited's Managing Director Mr Kenji Kanda.

Matilda, following a... vals from



Environment Minister, Kevin Minson and Executive Director Syd Shea after the Minister launched the National Awareness Week on Tuesday, 24 August. Photo by Verna Costello

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# Woodvale Open Day

by Grant Pearson

PEOPLE living near CALM's Wildlife Research Centre at Woodvale were given a chance to see the Centre for themselves one Sunday early in December.

The Open Day saw about 100 people, representing 35 families, visit the Centre's Ocean Reef Road premises between 11.00am and 3.00pm — a mere four hours.

The visitors inspected the building and displays and learnt about research projects from Research Centre management and scientists.

Questions came thick and fast, and gave staff an indication of the high degree of interest their 'neighbours' had in the work being done by CALM and at Woodvale in particular.

An unscheduled visit from a young boobook owl, sheltering in the rafters of the Centre's verandah, to get away from the attentions of a gang of ravens, aroused great curiosity and raised comments on the importance of nature reserves such as Woodvale as habitat for wildlife.

Visitors were shown that, like the owl, many species of native birds, reptiles and mammals find refuge in the 39 hectares of largely undisturbed jarrah and banksia woodland on the Woodvale Reserve - a secure remnant of native vegetation in the northern metropolitan area.

## Guided tour

A guided tour showed visitors through one of the laboratories, the main purpose of which is to provide a work base for scientists working in the field throughout Western Australia.

No animals were being held for observation and study at the time and visitors learned that, apart from the laboratories for about 50 staff, there are offices, a seminar room, library and workshop.

Visitors also learnt how zoologists, botanists, ecologists and wildlife managers from CALM's Science and Information

Division and WA Threatened Species and Communities Unit carry out a variety of work programs including scientific research and conservation projects involving:

- the conservation of threatened animals such as the numbat, western swamp tortoise, quenda, chuditch and Shark Bay mouse;
- the conservation of threatened plants;
- the effects of different fire regimes on plants and animals in many parts of the State;
- the conservation of wetlands and waterbirds;
- studies aimed at conservation of marine turtles;
- the distribution and conservation status of plants and animals within national parks and other reserves and on other categories of land.

The public's response was so enthusiastic that another Open Day is planned for spring 1994.

Anyone wanting further information can telephone (09) 405 5100 during office hours.



Ranger Mike Churches shows visitors one of the Wildlife Research Centre's Open Day displays. Photo by Verna Costello

## Doug wins Rotary award

ONE of CALM's most high-profile employees is well-known for such activities as rescuing beached dolphins, monitoring boating to ensure the State's unique whale sharks are not disturbed and even apprehending smugglers of our wildlife.

Now, supervising wildlife officer Doug Coughran has been recognised by the Rotary Club of Como with a 'Pride of Workmanship' Award.

The award is part of Rotary International's program to recognise excellence and good service in the workplace.

However, the last time Rotary's Como Branch gave anyone this particular award was 10 years ago.

Cleve Main, a prominent Rotary member who

works with the Department of Agriculture and liaises with Doug on a regular basis, was instrumental in bringing about the award.

"There is no doubt in my mind that the quality of Doug's work is of a high standard," Mr Main said.

### Goodwill

"From personal observation, I know his attitude to public relations and education has engendered considerable goodwill and understanding by the members of the community he encounters on an almost daily basis."

Dave Mell nominated Doug for the award, making the following comments:

"Managing the interaction between people and

wildlife is a challenging task which is characterised by many competing or conflicting demands.

"Doug liaises with members of the public, over a range of areas including whale and seal strandings, nuisance and dangerous fauna, industry representatives (whale watch and whale shark viewing) and members of Government agencies.

"His communications skills in the field and his fair and friendly attitude results in very positive feedback and achievement of objectives.

"He sets a very high standard, manages difficult circumstances well and is a dedicated and professional operator."

Doug was pleasantly surprised to receive the

award.

He had no prior knowledge of the nomination and was simply invited to a Rotary meeting to give a speech on managing wildlife.

## Fire and water hottest topics

**BUSHFIRES at this time of year keep many CALM staff busy, but summer also brings increased pressure to bear on other CALM operations.**

Marine parks, for example, where staff have been kept on their toes throughout a busy year, know no let up as the 1993-94 summer season rolls on, with thousands of people flocking to metropolitan marine parks to swim, dive, fish and go boating.

Pictured are Swan Region Marine Operations Manager Peter Dans (left) discussing plans for the day with ranger Dave Burton, before setting off recently in CALM's marine parks vessel *Gandara* from Hillarys Boat Harbour. It turned out to be a long, hectic day.

Keeping track of an apparently sick shark languishing in the shallows, and trying to shepherd it out into deeper waters away from swimmers, turned out to be the day's priority.

Normal patrol duties gave way to warning divers and beach users of the shark's presence and keeping the Surf Lifesaving Association and the Department of Transport (formerly Marine and Harbours) supplied with up-to-the-minute reports on its whereabouts - all while taking calls that came thick and fast throughout the day from the media.

Swan Region Marine Operations staff are kept busy on a diverse range of issues, including enforcement matters such as the recent reef poisoning incidents in Marmion Marine Park. Patrols with Fisheries inspectors have been increased in an effort to curb the practice.

Recreation management and nature conservation issues are closely linked. There are ongoing investigations into reports of boat owners installing illegal moorings in the Shoalwater Islands Marine Park.

Monitoring of flora and

fauna values that have led to marine parks being declared is also an important role.

This summer's activities include dive surveys to determine inshore reef populations and mapping of reefs in both Marmion and Shoalwater Islands

Marine Parks. Meanwhile, what happened to the sick shark? It beached itself just before dark when a recreational fisherman triumphantly claimed it as his catch of the day.

• Photo and story by Verna Costello



Doug Coughran and his Pride of Workmanship Award. Photo by Carolyn Thomson



## World exclusive conocurvone contract

From page 1

The CALM/AMRAD agreement provides for:

- the rapid production of conocurvone, while the plant resource from which the drug is obtained is protected and conserved;
- cost recovery funding by AMRAD for the con-

sortium's work and research funding so that other WA smokebush species with potential pharmaceutical properties are protected, evaluated and developed. The first payment of \$1.15 million was made at the recent signing ceremony.

- significant royalties to be paid to the WA community from the sale of developed pharmaceutical products;
- the establishment — at no cost to taxpayers — of the full range of facilities needed to initiate a pharmaceutical infrastructure for WA.



Above: A mardo (left) and chuditch (right) are just two of the species commonly caught at Batalling State forest since a successful fox control program by Collie District. Photos by Carolyn Thomson.

Right: Brent Johnson measures a juvenile bungarra. Photo by Jenny Daniels.

# Partnership a boost for forest animals

STAFF from Collie District and researchers from Woodvale are jointly investigating the impact of prescribed burning on vertebrates in the jarrah forest near Collie.

by Brent Johnson

assistance with fire ecology research and a joint project began in November 1992.

The project began after a successful fox baiting program by district staff in forest blocks east of Collie.

The scientific data and findings will be used for planning and management within Collie District, and could be applied throughout similar areas of jarrah forest.

Research into this program by CALM researcher Keith Morris showed that native fauna increased dramatically.

From day one it has been a co-operative undertaking by the district and Science and Information Division.

As a result, Collie forest officers Rob Brazell and Brad Barton identified the need to study the effects of district operations on fauna and develop management plans for these and other areas.

At times in the past, research studies have been carried out with minimal liaison between local staff and researchers.

Principal research scientist Gordon Friend was approached for

This is not the case in Collie where initial reconnaissance, establishment

and subsequent sampling has involved personnel from both Woodvale and Collie.

Many students, graduates and other interested people have also participated in the study as volunteers.

## Hands-on

The rostering of AWU workers and field officers to help researchers has given district staff the chance to get 'hands-on' experience and gain an understanding of the nature and importance of research on community ecology.

This rotation of staff has provided a valuable pool of expertise on a local level.

As well as benefiting this particular project, the co-operation has increased awareness about native animals and their habitat

requirements throughout the district.

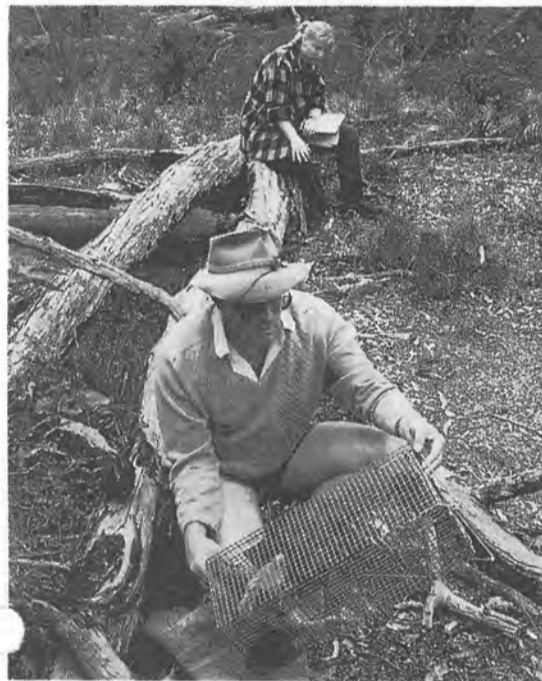
The district is now planning a series of prescribed burns in the study area that fit in with both the district's management objectives and researchers' requirements.

Protection of all sites both before and after the burns is also catered for in this planning.

This district commitment to provide staff, logistical support and accommodation on nearby Maxon Farm has created an environment of teamwork and co-operation.

It is a good example of integration within a multi-disciplinary organisation such as CALM.

It is a case of recognising an important need and pooling resources to achieve a common goal.



Left: Principal research scientist Gordon Friend checks a trap, while volunteer Alison Sampey records data. Photo by Carolyn Thomson

Below left: Brent Johnson and Ross Sturgess from Collie District examine a bungarra during trapping in Batalling forest. Photo by Carolyn Thomson

Below right: Gordon Friend checks the eartag of a young brushtail possum. Photo by Carolyn Thomson

Right: Researcher Brent Johnson resets a trap while a volunteer records data and forest ranger Rob Brazell from Collie District weighs a brushtail possum. Photo by Deborah Banks courtesy of the Collie Mail



Red-tailed skink



# Overalls say it all

DWELLINGUP health and safety representative Peter Jones and protection officer Peter Burton have become a great hit with fire crews by organising eye-grabbing CALM identification for their overalls.

This was achieved with the use of 100 mm high CALM identity lettering in 50 mm reflective strips and all CALM dwellingup fire-fighters who wore the uniforms at a recent burn stood out, day and night, with striking colours — a great safety and welfare innovation for all men and women at the fire front.

It all began a couple of years ago when Peter Jones noticed that fire crews from other organisations wore distinctive overalls, making it easy to see who they belonged to (Bush Fires Board, State Emergency Services, and so on).

Peter also noticed that the media often reported those organisations whose names were displayed on overalls and CALM was

by  
Tammie Reid

missing out on an opportunity for a high community profile, particularly via television. "A lot of people have no idea that CALM plays a key role in protecting the community from fires; they just think this role is carried out by local brigades and town fire departments," Peter said.

## Safety aspect

"More importantly, there was the safety aspect because the lettering stood out a mile in the dark and was highly visible during the day."

It took Peter about two years to get something in place for CALM, and it needed quite a few trips to Perth in off-duty hours.

"It had to meet departmental standards and be approved by the uniform committee," he said.

"Then Jasons, the company that supply the

day-night reflective tape, had to track down a new supply of ink that could be permanently stencilled onto the tape.

"This ink had to come from the USA and there were problems in getting air freight clearance because it was listed under hazardous chemicals.

"There's no problem, however, with the ink reacting to heat or being a hazard to wearers.

"It's been worth it and we've now got exactly what we want — even the mechanics are covered except they have 'MECH' under the CALM name.

"And for the people who choose not to wear the overalls we put the green and white reflective strips on their safety helmets."

The plan now is for all future departmental fire overall issues to include this identification.

For further information, please phone Peter Jones or Peter Burton on (09) 538 100 or fax (09) 538 1203.

Great going, guys!



With backs to camera to show off the eye-grabbing CALM name on their overalls are Peter Jones (left) and Kevin Ashcroft. With them, left to right, are: Terry Glidden, Jim Pratt, Barry Ashcroft, Keith Harris, Merv Burt, Ray Jarvis, Alf Allen and Lloyd Wren. Photo by Taryn Linning

## Foxes wait while bush blazes

by  
Nigel Higgs

AS THE sun rose over the jarrah forest surrounding Dwellingup a few weeks before Christmas, CALM's local office staff awoke knowing that within hours Environment Minister Kevin Minson would arrive to announce the expanded Operation Foxglove.

Kesner's Swamp, north west of the townsite, was to be the site of the announcement and all five television stations had indicated they would be sending crews.

CALM staff Tammie Reid, Taryn Linning and Alf Allen had arranged to put on a CALM-style morning tea complete with damper and billy tea.

Mike Dillon and Mike Tagliaferri were to bring in a brushtail possum and a mardo.

A few hundred metres above the forest, CALM pilot Russell Palmer had begun his fire-spotting run.

Little did the staff know that by lunchtime, they'd be fighting fires as the thermometer climbed to 36°C and high winds blew from the north-west at 26 km/h.

Tammie Reid picks up the story:

It all began when mill workers burning bark debris alerted us that the

fire had escaped.

The flames zipped over the bark and into grass on the edge of the mill site.

Within 40 metres, the flame height raced from half-a-metre to almost the tops of 10 metre high jarrahs.

It was in dirty bush that was probably unburned for at least 10 years as it was difficult to include in the town protection burns.

## Gutter fires

Within minutes, gutter fires threatened three houses but quick action by Brian Smith and his crew, supported by John Postans' great machine operator skills, helped contain the blaze.

At the peak of the fire 49 fire-fighters from CALM Dwellingup, volunteer brigade units from Dwellingup, Coolup, West Murray and North Dandalup and units from Murray Shire were on the scene.

Within two hours the fire was contained and

damage was restricted to a mill landing loader and 80 cubic metres of stockpiled second and third grade jarrah logs.

Meanwhile, pilot Russell Palmer radioed a smoke report in Lane Poole Reserve.

A heavy duty unit was on patrol to keep watch on the area of the reserve that had been control burned nine days before.

Another fire crew was despatched to check it out but had to return because the fire in town had broken out and had the higher priority in terms of life, property and value.

The winds picked up and the fire accelerated, driven by strong NNW winds.

## Fuel loadings

It hopped over a road into 15-year-old unburned forest with fuel loadings around 20/tonnes/ha.

More heavy machinery had to be brought in and when the fire had died down, they moved in to attack the head fire.

Pumper units consolidated the bare earth fire

break and a drop in wind to just 8km/h allowed them to tackle the head fire.

Units came from CALM Dwellingup, Harvey and Jarrahdale with heavy machinery from Alcoa.

The SES gave catering support and set up roadblocks. Bibbulmun track was closed.

The fire was contained at about 6pm and crews worked through the night and into the next day mopping up.

Mike Tagliaferri, who was incident controller, summed up the day: "It just goes to show how you have to be on the alert all the time.

One moment you're hearing about how CALM is going to out-fox the fox, the next moment you have a firehose in your hand trying to save houses."

CALM Dwellingup manager Keith Low said the crews did a terrific job in difficult circumstances.

"They really were blow-up conditions but because we were prepared, and we work as a team, we could prevent the fires from destroying houses and burning vast tracts of forest," he said.



Gary Kravainis checks his incendiary machine before take-off. Photo by John Evans

## Firing bombs to fight the fires

INITIAL trials to ignite two areas of karri regrowth, using a Bell 206 Jetranger helicopter, were successfully conducted last November at Pemberton.

It was the first time that CALM had used a helicopter for this purpose.

CALM had previously used a twin-engined aircraft on a karri regrowth burn, but it proved far from ideal for the purpose.

The helicopter was fitted with a new incendiary machine designed and constructed by CALM fire equipment development officer Gary Kravainis from Bunbury.

The machine proved to be perfect for the task, far out-performing the older incendiary machine that

had been in use for a number of years.

CALM Southern Region protection officer John Evans said that the helicopter was an ideal vehicle for igniting specific areas as it could maximise production at an economic cost when weather and fuel moisture conditions were ideal.

## Unsafe for crews

"Two areas of 20-year-old karri regrowth were burnt — one commercially thinned and the other unthinned," John said.

"The unthinned areas were particularly dense with a thick scrub understorey, far too dense and unsafe for crews to light on foot.

"Walking lanes have to be bulldozed to allow access on foot, if the areas cannot be lit from an aircraft.

## Difficult, expensive and undesirable

"It's a difficult, expensive and undesirable operation as significant damage may be done to future crop trees but if we use a helicopter we can avoid using bulldozers.

Therefore the use of the helicopter is very cost effective.

"The pilot was highly skilled and experienced at this type of work, having been involved in Tasmanian forest burning operations.

"He was able to drop incendiary capsules within five metres of the place desired.

"It's vital that operational techniques to prescribe-burn karri regrowth stands be developed to ensure their protection from damaging wildfires."

CALM navigators Leon Price and Garry Stanger were very impressed with the helicopter's high degree of visibility, mobility and comfort.

The helicopter had also been used to ignite burns that would normally be done by the twin-engined aircraft.

It was found that because of its manoeuvrability, it could compete in terms of cost with these aircraft.

## A three-day bushfire at Shannon-D'Entrecasteaux

A MAJOR wildfire started by lightning on December 27 burnt out 13 000 ha, mainly in the Shannon and D'Entrecasteaux National Parks.

The fire was located in the Pingerup block about 30 km north of Walpole, between the Broke Inlet and South Western Highway.

Because of the fire and suppression operations, the highway had to be closed to public traffic for four days until declared safe to reopen.

The fire was first detected by CALM spotter aircraft pilot and crews, and bulldozers from Walpole and Manjimup were quickly despatched to attack the fire.

The fire was in a 'no planned burn' area that had been unburnt for 15 years.

Despite valiant ef-

orts for nearly four hours, fire-fighters were forced to withdraw at 9.00pm when a north-easterly wind strengthened.

Operations officer Greg Mair said that this caused a rapid and dramatic increase in fire behaviour, putting lives at risk.

The fire began travelling at about 800 metres an hour and became impossible to contain in the difficult forest terrain.

Because of this, a backburn operation was mounted along the highway as soon as the wind turned north-west.

Day and night shifts continued over the next three days until the fire was contained and safe.

Regional coordinator John Evans said that everyone involved put in an outstanding effort.

"Nearly 200 people were involved during the

operation," John said.

"There were crews from almost every forest district plus Albany and a number of Bush Fire Brigade volunteers helped our crews.

"State Emergency Service volunteers from Manjimup, Nannup and Busselton staffed road blocks around the clock for three days while the highway was closed — a great contribution."

Six bulldozers, a large loader and a grader were also used. A helicopter proved invaluable in the provision of detailed up-to-date information on hopovers and hotspots in areas where it would have been impossible to use a spotter aircraft.

Mopping up and detailed aerial and ground patrols continued for several days after the fire was contained to ensure no escapes.