



Conservation News

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DECEMBER 2005

World faces major extinction of WA plants, says CALM Executive Director

CALM Executive Director Keiran McNamara told Australian and international scientists, and CALM staff, that the world faces a major extinction of WA plants.

"The threats include salinisation, dieback, climate change, weeds and grazing by introduced animals," he said at the official opening of the *Advances in plant conservation biology: implications for flora management and restoration* symposium in Perth recently.

Keiran said of the world's 270,000 known vascular plants, 34,000 species have been listed as threatened.

"However, it has been estimated that between 60,000 and 100,000 plant species may be threatened worldwide," he said.

He told those attending the sym-

by Sue McKenna

posium that the threats in WA were as severe as those in many other parts of the world.

"WA has about 10,400 species of native vascular plants, with an unknown number yet to be described, and contains about 50 per cent of Australia's known flowering plants, ferns and cycads," he said.

"It has more than 2500 threatened, rare and poorly known flora, approximately eight per cent of the world's total, making WA one of the major centres for threatened flora in the world."

Nearly 80 per cent of the plants found in the South West Botanical Province, south-west of a line from Shark Bay to Israelite Bay east of

Esperance, were found nowhere else in the world.

The botanical province is listed as a world biodiversity hotspot.

"A biodiversity survey of the WA agricultural zone found that around 450 plant species were threatened by rising water tables and salinity," Keiran said.

"It is estimated that more than 3000 of the 5710 described plant species in the South West Botanical Province are susceptible to dieback."

Keiran said the national and international research on global warming suggested that south-west Australia would have decreased rainfall and temperature rises.

Another threat was habitat fragmentation.

"We need to understand these threats at the landscape level, and

how that understanding can lead to an integrated and more strategic approach to biodiversity conservation and management," Keiran said.

He said there needed to be an understanding of the relationship between fire and weeds to conserve and manage WA's flora across the wheatbelt, the coastal plains and large degraded areas of rangelands.

More than 200 people from all parts of the world attended the symposium, organised by CALM and the Botanic Gardens and Parks Authority.

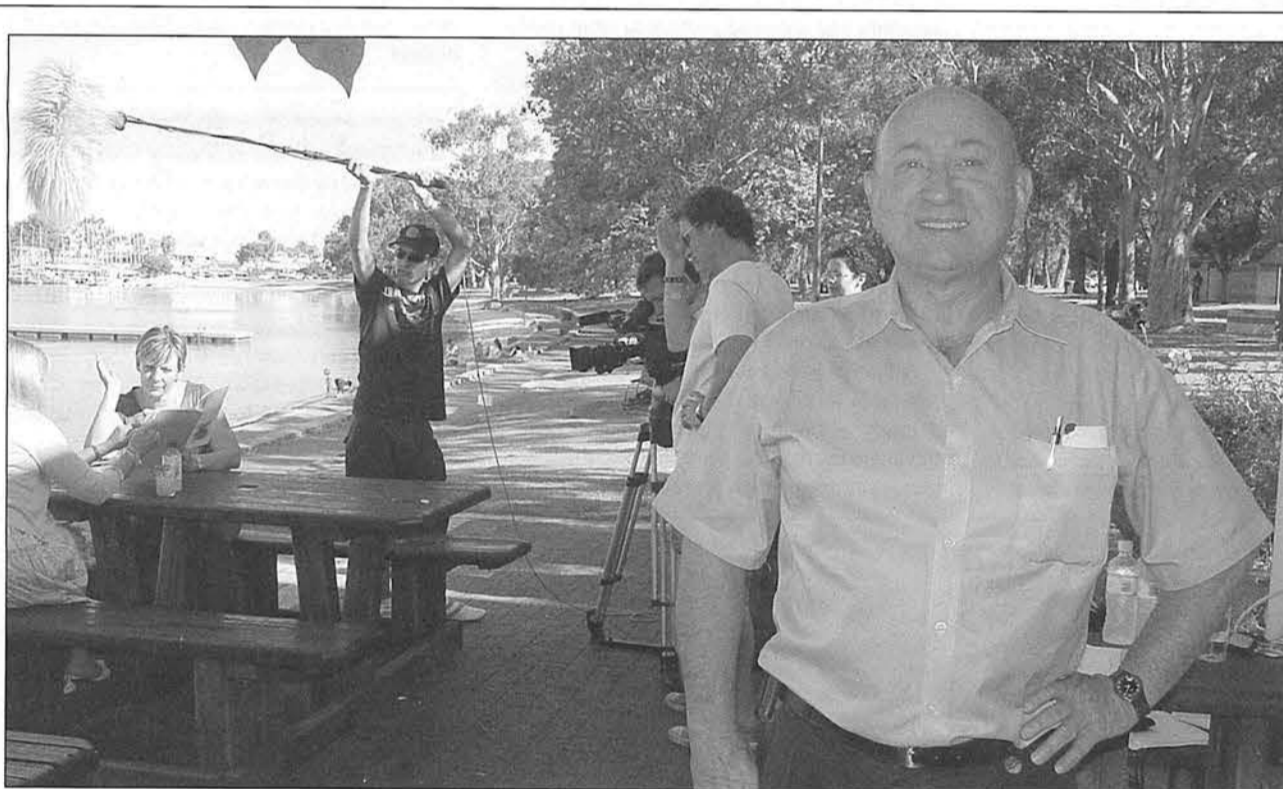
"It was very well received," said CALM's Senior Principal Research Scientist, Dave Coates, who chaired the organising committee comprising CALM staff Leonie Monks, Andrew Crawford, Shelley



CALM's Executive Director Keiran McNamara.

McArthur and Joanne Smith, and Botanic Gardens and Parks Authority Staff Kingsley Dixon and Deanna Rokich.

Papers presented at the symposium will be published in a special edition of the Australian Journal of Botany in 2006.



John Hunter oversees the filming of a BBC documentary concerning Maryon Stewart's latest book on women's health, *Beat Menopause Naturally*, on Matilda Bay Reserve in Crawley. Photo - Rhianna King

Bird flu: A risk to Australia?

by Rhianna King

WHILE the world braces for a possible pandemic of avian influenza, or 'bird flu', evidence suggests that Australia's native species and its migratory birds are not at immediate risk.

There are various strains of largely benign bird flu among Australia's birds, but the strain that is spreading throughout Asia is called H5N1.

CALM Senior Research Scientist, Allan Burbidge, said it was unlikely that migratory birds would carry a strain of bird flu to Australia that would infect birds here.

"The risk is when a person enters Australia carrying a strain of bird flu that has crossed to humans and then infects other people, but that hasn't yet happened. There would be some risks to wildlife if infected birds were brought into the country," Allan said.

"This makes it necessary for Australia to be really strict about its quarantine without banning the importation of birds completely. This would only encourage trade on the black market, which is obviously not controlled by quarantine at all."

Allan said that bird flu was more common in waterfowl, such as ducks and geese, than waders and Australia received mainly migratory wader birds.

"Even though the migratory birds travel to Australia along the East-Asian/Australian Flyway, which passes through South-East Asia, they travel relatively quickly, stopping in only a few places along the way, so this limits the places that they could contract the disease.

"The distance and strenuousness of the migration would mean that unhealthy birds wouldn't make it anyway."

Allan also said that the spread of the bird flu was more common in domestic poultry because of the high density living conditions and the likelihood of contamination from faecal matter. Domestic birds did not often come in contact with migratory birds so it was extremely unlikely that the virus would spread from Australian birds to humans, he said.

"Risks will inevitably be slightly higher for ornithologists who handle migratory birds as part of their research, but they are already aware of the risks and any necessary precautions they need to take.

"Organisations such as Birds Australia are working with other agencies to research and prevent H5N1 reaching our country," he said.

Feature films and nature programs build CALM's image

THIS year, CALM received more applications than ever from international filming companies wishing to shoot feature films and documentaries on CALM-managed lands.

It seems more and more people are getting the opportunity to see WA's natural wonders from the comfort of their lounge rooms and cinemas.

CALM Public Affairs Officer, John Hunter, who received and processed about 200 filming permit applications in 2005, said about one third of applications were from companies overseas.

"The rest of the world is only just discovering what we've got here in WA," he said.

"Over the years, we've had applications for all sorts of productions, from standard tourism-type documentaries to full-

by Rhianna King

fledged movie productions.

"Part of the world-famous QANTAS advertisement, featuring children singing, was filmed in Karijini and Wolfe Creek Meteorite Crater Reserve is even the namesake for a feature film. One year, we even had a full symphony orchestra being filmed while performing in the Pinnacles at midnight."

John said the rate of filming by local and national companies was also steady, with iconic areas like Shark Bay, the Pinnacles, Ningaloo and the Bungle Bungle Range being the most popular.

"CALM will always be busy with filming permits because we manage the

majority of the State's best tourist venues," he said.

John said it was necessary for an application to be made by filming bodies that planned to shoot on areas within CALM-managed lands and waters.

"These applications are then forwarded on to the Districts and relevant community groups with the aim that filming is done with the knowledge and approval of local staff and Indigenous groups," he said.

"Where fees are charged for dramas and advertising projects, the resultant revenue goes back into the park's maintenance accounts. But, in some cases, the compensation from these projects is the community service and public relations value they bring to the image of the Department and the State."

Working Together

I will begin this final Conservation News column for 2005 by thanking all staff for your dedication, enthusiasm and contribution this year, the 20th anniversary of CALM's establishment.

Once again it has been a busy and demanding year right across the Department's broad range of activities. While last year finished with a flurry of new national parks in the south-west forests, and new and extended marine parks, this year has been more one of consolidation and ongoing delivery of our core functions.

Nevertheless, there have been a number of highlights – our performance in the January fires; the rollout of our expanded visitor facilities program in parks; the Government's go-ahead for the new biodiversity science centre and herbarium; release of the draft Good Neighbour policy; the strengthening of Western Shield; and the initiative to deploy conservation employees from the south-west to assist in projects elsewhere in the State.

Across these and all other areas, I believe CALM staff can be proud of their contribution to conservation and to the community of our State.

Together with the Minister for the Environment, Dr Judy Edwards and my colleagues on the Department's Corporate Executive, I would like to extend to all our staff, Conservation Commission members and staff, Marine Parks and Reserves Authority members, and our many volunteers and partners, my best wishes for a happy and safe Christmas and New Year.

Keiran McNamara
Executive Director



Dieback – the biological bulldozer

TAKE a look at the plant on the right – the endangered mountain dryandra (*Dryandra montana*).

Dieback is driving it to the brink of extinction. Less than 50 plants exist on the mountain tops of the Stirling Range National Park – and they're found nowhere else in the world.

A seed orchard has been established under the direction of CALM's Threatened Flora Seed Centre to increase the number of plants.



The seed orchard site, with the Albany rare flora recovery team. Pictured in the front row (left to right) were Anne Burchell (Porongurups), CALM Assistant Conservation Officer, Renee Hartley and CALM Threatened Flora Officer, Sarah Barrett, and back row (left to right) Merle Bennett from Ravensthorpe, CALM Land for Wildlife Officer, Sylvia Leighton, Judy Giles from Mt Barker; Linda Strahan and Sue Osborne from Ongerup, and CALM Senior Research Scientist and Manager of CALM's Threatened Flora Seed Centre, Anne Cochrane. Photo – Sarah Comer

Dieback threatens more than 3000 species and subspecies

WORK by CALM scientists Bryan Shearer, Colin Crane and Anne Cochrane published in the *Australian Journal of Botany* shows that *Phytophthora cinnamomi* dieback is threatening more than 3000 species and subspecies of plants in the South West Botanical Province – Australia's only global biodiversity hotspot.

The botanical province stretches from Shark Bay to Israelite Bay, east of Esperance, extending to the west coast. It is full of ancient flora and relict species found nowhere else on Earth.

Dieback is particularly aggressive in the south coast region around Albany. In the Stirling Range National Park, 1517 plant species are threatened by dieback.

Dieback is a soil-borne pathogen spread by water and root to root contact, killing the plants by forming lesions on the roots and

by Dave Coates and
Sue McKenna

stem, destroying both.

The potential long-term impacts of dieback involving broad-scale habitat loss and the extinction of numerous plant species have been dramatically described on a number of occasions. In a joint publication of the Dieback Consultative Council and the World Wide Fund for Nature, dieback was referred to as the 'biological bulldozer'.

CALM models show that in the year 2181, there will be very few areas of the South West Botanical Province that remain free of dieback.

In the jarrah forest region, north of Preston River, 784 plant species are now threatened by the disease, with another 1313 being threat-

ened in the Swan Coastal Plain.

The presence of dieback also causes a loss of habitat for fauna, changing the vegetation structure and reducing protection from predators. It also causes a loss of food resources.

In the past 15 years, the fungicide phosphite has been successfully used to reduce the spread and impact of dieback in small infested areas such as the Bell Track in the Fitzgerald River National Park and sections of the montane heath communities in the Stirling Range National Park.

It can be applied to trees through injections in the trunk, or aerial or ground spraying of whole plant communities.

Although phosphite has proved to be successful in localised control of the disease, particularly in threatened plant populations and threatened ecological communities, there is increasing recognition that further research is

needed to improve knowledge in relation to soils and rates of spread, susceptibility and alternative methods of control that may lead to more effective management of this devastating disease.

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Saving lives in an hour and a half

by Rhianna King

Three contingents of brave CALM staffers went to save the lives of their fellow countrymen and women last month... by donating blood.

The 14 staff members, organised by CALM Senior Prosecutions Officer, Peter Pennings, travelled by mini bus to the donating centre in Perth where they donated just under half a litre each.

The blood donations, which would have been thoroughly screened, could have been used to make up to 13 different products, including transfusions.

"It is so important that people donate blood because people literally die without the blood that is donated," Peter said.

"It only takes an hour and a half or so in total every three months, which is really not a big ask."

Red Cross Registered Nurse, Sharon Gibson, said they relied on the commitment of workplace coordinators for their support.

"With Christmas coming up it is especially important that people donate blood," she said.

"Platelets only last for five days so we are always looking for new donors."

People between 16 and 70, who are fit and healthy and fulfil a range of health and lifestyle criteria can donate once every three months. Group donations can be organised. For more information, contact Peter Pennings on 9334 0287 or by email (peterp@calm.wa.gov.au).



Peter Pennings donates blood under the watchful eye of Red Cross Nurse, Sharon Gibson. Photo – Rhianna King

Twenty years ago this month... December 1985



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IAN SOLOMON (left), Steve Strachan, Alyn Yates and Peter Collins (obscured) sort out knotting during the south coast Search and Rescue Seminar at Torndirrup National Park.

RESCUE TRAINING FOR FIELD STAFF

VISITOR safety always of concern for CALM field staff.

The Northern regions breathe a sigh of relief as the busy tourist season draws to a close with only two major rescues this year both at the Hamersley Range National Park and to fatalities.

Further south, however, summer approaches, visitor numbers increase and rescue teams prepare for standby.

Most of our national parks boast scenic attractions such as coastal cliffs, rocky outcrops or river gorges.

The spectacular views of the country also hold dangers for the inexperienced, unwary or just plain unlucky visitor.

About half of the national park rangers have had rescue training.



For the past few years, officers of the Special Air Service Training Squadron have provided expert instruction in ropes and knots, the raising and lowering of stretchers and coordination of a rescue operation.

One of the benefits CALM has is the large network of personnel available in an emergency.

A number of small scale training sessions have taken place throughout the State and two major exercises have been conducted this year.

In October, two forest officers conducted four national park rangers in a four-day training session at Sturt's Quarry, Perth.

Under the watchful eyes of W.D. McCalman and Sgt. Herick, the six developed the skill and confidence to successfully operate and carry out a

By MARY COLREAVY and JOHN WATSON

mock rescue on the final day.

A "patient" was given emergency first aid, lowered over an overhang and down a 30m cliff.

He was carried across the gully and then raised, with an escort guiding the stretcher's progress, up a 25m rock face to safety.

Two weeks later, a Search and Rescue Seminar was held in the South Coast Region.

The seminar was designed by the SAS officers in consultation with Regional Manager John Watson.

The course included basic map reading techniques, compass work, search theory, call out procedures, stretcher raising and lowering, cave rescue techniques and a full scale search and rescue exercise on the final day.

It was a difficult course which all participants survived, some only just.

The mock rescue highlighted the logistical and technical difficulties of carrying out rescues in hazardous terrain.

Overall, the seminar was felt to have been very successful by the National Park Rangers, Wildlife Officer, Safety Officer (Como) and Albany and Esperance Office staff attending.

THE AUSTRALIAN National Parks and Wildlife Services has appointed a training officer for the Aboriginal Ranger Training Programme.

He is Steve Szabo, who has been teaching at Roebourne since 1981.

Steve was involved in the planning and establishment of the Roebourne Youth Development Centre, a secondary and adult education unit.

He taught secondary school subjects, vocational courses and an adult literacy programme.

The training scheme will be jointly run by the Commonwealth and State Governments and will be based at the Millstream-Chichester National Park in the Pilbara.

Four trainees were selected this week to begin their training on January 6. The programme will continue for 12 months.

Softwood scheme popular

By ROSS YOUNG
THE POSITIVE community support being given to the Softwood Share-farming Scheme has exceeded our wildest dreams, and reflects great credit on the CALM personnel who have given 100 per cent to the scheme.

The Softwood Share-farming Scheme revved up a couple of notches this week with Premier Brian Burke announcing that it would be expanded to South West Shires outside Manjimup.

The Elders Weekly headlines "Tasting the Cake Before it's Baked" this week, is certain to give real impetus to our expanding programme.

The article gives unqualified support to the programme, and a rush of interest is bound to develop from this very enthusiastic publicity.

Undoubtedly farmers will have to be asked to have some patience with our site assessment processing team, because the one experienced team of field assessors, Paul Jones, Martin Rayner & Co, are flat out processing the first few sites to establish the

necessary bench marks from which future teams can be trained and operate.

The first sites should be completed by late January, and include two areas in excess of 200ha of plantable soils.

From then onwards, a steady flow of contracts should be completed.

Many very large and successful property owners have indicated a positive interest in the scheme.

They are only holding off offering their land for the scheme until they see the level of annuities that will be paid for the different classes of country.

This could be a negative

EXCITING ISLAND FIND . . .

Survey team traps dibbler on Boullanger

A SMALL rat-sized marsupial, whose elusiveness over the last 150 years has concerned biologists about its long-term conservation, has been found on an island north of Perth.

Parantechinus apicalis, commonly known as the dibbler, was found this week on Boullanger Island, south of Jurien Bay, by a CALM biological survey team.

CALM's Principal Wildlife Research Officer, Dr Andrew Burbidge, said it was the first time this century that the carnivorous marsupial had been found near the west coast, and the first time it had been found on an island.

Earlier this year, the dibbler was found during biological research in the Fitzgerald River National Park on the south coast.

It was first discovered near New Norcia in 1838, and recorded from Moore River to Albany during the State's early settlement and development.

Fossils indicate that it was even more widespread.

Clearing of the land and the introduction of predators like the domestic cat and foxes are believed responsible for the decline in numbers.

The discovery of the marsupial at Cheyne Beach near Albany in 1967, the first sighting for 83 years, led to increased searches along the south coast.

Seven animals were recorded at Cheyne Beach up to 1981, and two dead animals — one caught by a domestic cat — were found at Jerdacuttup, near Hope-toun, in 1976.

The rarity of sightings led biologists to believe that the dibbler faced extinction, which makes this

discovery of major significance.

Andrew said the female dibbler was trapped on Boullanger Island after small mammal tracks were found by the survey team.

He said the lack of predators on the island enhanced its chances of survival.

With little known about the dibbler, further discoveries on the island could see it becoming a laboratory for scientists to study the animal.

Andrew said the survey

team was examining the islands between Lancelin and Dongara to develop a draft management plan for the area.

These islands are valuable nature reserves because they protect breeding colonies of sea lions and several species of sea birds.

With increased public use of the offshore islands, and the discovery of the dibbler on Boullanger, a management plan would reconcile conservation needs and recreation activities.

RARE MARSUPIAL IN W.A. DESERT

The Sandhill Dunnart, an extremely rare mouse-like marsupial, only captured twice before in Australia, has been discovered in WA.

Five animals were captured in the Great Victoria Desert east of Kalgoorlie recently by Dr Ray Hart, who was conducting an environmental impact study for a mining company.

The Sandhill Dunnart (*Sminthopsis psammophila*) has been captured once in South Australia and once in the Northern Territory.

The animal, largest of all the dunnarts, is grey with black markings on its head and around its eyes.

Its long tail is muscular and tapered toward the end.

With the discovery of the Sandhill Dunnart in WA, the State rare and endangered species list will be updated and published in the Government Gazette.

Although the Agriculture Protection Board was asked by CALM to set live traps soon after the initial capture, no more individuals have been collected.

An expedition is planned to search for populations of the Sandhill Dunnart in the near future, according

to Wildlife Research Centre Director, Dr Andrew Burbidge.

Andrew said any live animals found would be used to establish a breeding colony.

Little is known about the Sandhill Dunnart because of its rarity.

However, judging from the previous captures, it is assumed the marsupial prefers low parallel sand ridges capped by hummocks of porcupine grass with wide swales.

It is thought the Sandhill Dunnart nests or shelters beneath these hummocks.

The male Sandhill Dunnart captured in South Australia was active in the late afternoon and foraged intermittently until dawn, eating a variety of adult and larval insects, spiders and chopped offal.

It was agile and adept at evading danger, but if cornered, would crouch in a defensive posture and threaten its assailant with open mouth and throaty hisses.

MANAGEMENT PLAN

A DRAFT management plan is being drawn up for the Leeuwin Naturaliste National Park.

The public and interested groups are invited to make submissions to the draft plan, which is for the management of the Park for the next 10 years.

Public submissions will ensure that all points of view, all activities and all land uses are considered.

A project team, coordinated by CALM's Planning Branch, will prepare the draft management plan.

It will also take into account other management proposals currently being considered, including a Departmental regional plan for the area.

Once the draft plan is completed it will be available for public comment for at least two months.

Twenty years ago this month... December 1985



FIRST AID certificate recipients are (from left to right) back row: Glen Wilmott, Joe Zappia, Guy Serafino, Rick Donovan, Alan Brown and Alan Jones. Front row: Tom Wood, Trevor Bamess, John Clarke, Lindsay Armstrong, Peter Henderson and Trevor Smith.

CERTIFICATES AWARDED

TWELVE staff from Harvey District received St John Ambulance Association First Aid certificates from Jim Edwards, manager personnel, at Harvey on November 21.

Trevor Smith, Tom Wood, John Clarke, Lindsay Armstrong, Trevor Bamess, Rick Donovan, Alan Brown, Glen Wilmott, Guy Serafino, Joe Zappia, Alan Jones and Peter Henderson were congratulated for their efforts.

Jim told the people present that the Department's resource is people, and after the amalgamation, we have a lot of people to look after.

"First Aid qualifications have another benefit," he said.

"We can look after people in the bush, particularly where there is a large number of visitors to an area where accidents are likely to happen."

District Manager John Clarke, a First Aid certificate recipient, spoke of the importance of the certificate to him in that he now knew what to do with a car accident to help save their lives.



CALM Safety Officer Arthur Kesners receives a framed certificate of achievement and a pendant from Minister for Employment and Training, Peter Dowding.

Safety program success

CALM's successful safety programme has been recognised by the Industrial Foundation for Accident Prevention.

Thirty-four divisions awarded Safe Way certificates and penalties without a lost time or a percentage increase in lost time in-

AP awards were presented at the Merlino Hotel on November 28.

Presented to: Keners, Safety Officer, divisions that achieved six months time injuries free Training Award from the Headquarter No. 1, 2, 3 and Staff.

Wanneroo Headquarters, Officers and Staff, District and District Workshop; Fire Protection Branch; Communications Branch; Research Branch; Information Branch; Inventory and Planning Branch; Pemberton District; Kirup District; Northern Central Forest Staff; Nannup Fire Crew (Overseer McKittrick gang), Fire Crew Overseer and Staff.

From my Desk

IT IS predictable (maybe boring) but nonetheless appropriate that at this time of the year we do indulge in some navel gazing.

While there is nothing worse than an individual or an organisation that continually heaps self-praise on himself or itself, I also believe it is important occasionally to record what has been achieved.

It is very easy for an organisation like ours which has a huge charter to be constantly concerned with the problems we face and the insatiable demand for our services.

So it is important occasionally to look back and measure our progress.

Firstly, contrary to what our most vehement critics would have us believe, the national park visitation has increased, the trees are still growing and the numbats are still breeding (in fact, there appears to have been a virtual explosion of dibblers in the past two weeks).

But in addition to surviving as an organisation, there have been some very major achievements, such as development of a substantially improved communication system throughout the State, major progress in timber utilisation, the development of core field staff training programs, the launching of the softwood sharefarming scheme, the virtual replacement of the national park vehicle fleet, completion of a number of draft management plans in very difficult and often controversial areas, and the acquisition of an additional seventy-three talented staff.

Obviously, despite these achievements there are still problems.

If there is one area of disappointment, it is in the lack of feedback to me and other Policy Directors from the Department as a whole.

Only a few officers have come forward with issues and ideas.

Despite the fact that there have been numerous invitations, there seems to be some barrier to the flow of information, whether it be criticisms or suggestions to senior members of the Department.

While it is all very well for us to feel a sense of purpose and cohesion about our Department and our functions, I strongly believe that we should promote vigorous debate so that we can benefit from the diversity of opinions and talents of our staff.

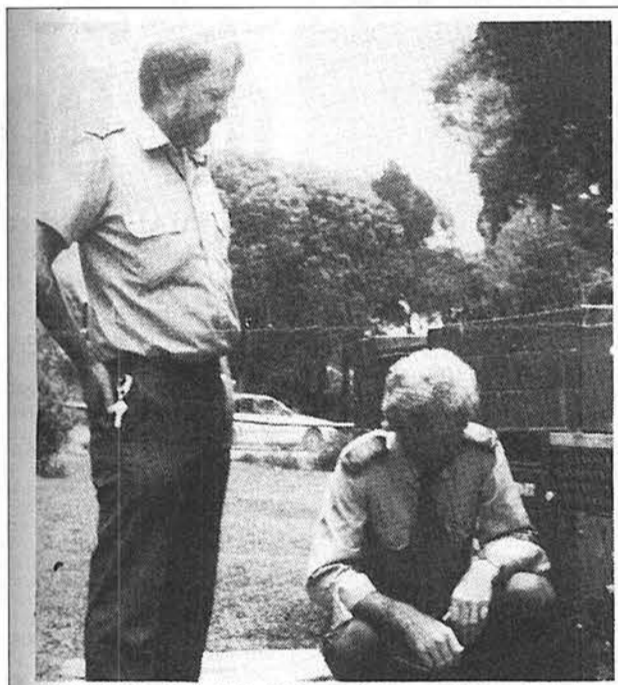
I believe the new year will see us being involved in many new initiatives.

For example, marine parks will be coming on board; there will be a major development in the area of public participation; the training and career paths programme should be established and functioning; there will be a major review of three south west regions involving a detailed assessment of the future of the timber industry; and I hope we can begin to develop an ecosystem approach to research and management practices.

We hope also to be able to take major initiatives in national park planning and interpretation.

I take the opportunity of thanking all staff for putting up with the trials and tribulations of the new Department and I wish you and your families the compliments of the season.

SYD SHEA Executive Director



WAYNE TAYLOR (left) and Jim Maher inspect public facilities on Garden Island.

Island job a family affair

GARDEN ISLAND has a new Ranger, but the appointee is keeping the job in the family.

Wayne Taylor, who took up his position as Naval Ranger in November, takes over from his brother Kerry, who recently resigned from CALM after four years at Garden Island.

Wayne, who was Ranger-in-charge at the Stirling Range National Park for the previous 11 months and had six years at Nambung National Park, will be seconded to the Royal Australian Navy to look after the environmental aspects of the island.

The Taylor family — which includes Wayne's wife Judy and daughters Nicole (15) and Lisa (13) — will live at Rockingham.

Wayne is looking forward to working with the UWA and the CSIRO on projects, particularly the tamar and marine projects. He said he is particularly interested in environmental research on Garden Island. Wayne's duties include crowd control of one of the most popular boating spots during summer — and to maintain public facilities on the island.

Despite the presence on the island, parts of it are open to the public during the day.



PETER HEWETT presents Val Storey with a pewter while other Kununurra staff look on.

Safety presentation

THE KIMBERLEY Region was awarded the Executive Director's individual safety award in September for achieving two years without a lost time injury accident.

The Region's 18 officers who are based at Kununurra, Broome and Fitzroy Crossing, were presented with pewters by the Director of Forests, Peter Hewett, to mark the occasion.

The achievement was considered outstanding because of the diversity of operations in the region, which included the activities of Wildlife Officers and Rangers.

These activities cover a large area and the officers often work along in difficult and diverse climatic conditions. Peter said that to achieve this result needed a positive attitude and a commitment by all to work safely for so long. He said injuries not only caused suffering but also reduced earnings and disrupted family life.

Intense activity for Pilbara survey

TRAVELLING more than 10,000 km across the Pilbara, blowing holes in rocks and camping under the stars are just a small part of what goes on behind the scenes of CALM's multi-million dollar Pilbara Biological Survey.

In fact, some days it's all about "blood, sweat and tears", according to the Department's Science Division Senior Technical Officer, Jim Rolfe, who heads the survey's sample site installation team.

With 30 years experience under his belt, Jim led a team to the Pilbara between June and September this year on three separate trips of 19 days duration to set up the sample sites.

His team comprised Jason Nolthenius, Wesley Manson, Tristan Farmer, Judy Dunlop, Tom Smith and Adin Lang whose ages varied from 19 to 63 years old.

Together they established 1500 pit traps for vertebrates and about 760 pit traps for invertebrates.

Their work involved digging holes with a crowbar or shovel, blasting holes with explosives and erecting nine km of fencing.

The invertebrate pits are small pits about 20 cm deep and designed with a roof, while the vertebrate pits are made of PVC pipe, 60 cm deep and are buried vertically into the ground.

"The team put in a fantastic effort," Jim said.

"Everyone got along well. There were times when it was psychologically wearing but at

by Tracy Peacock

night when we made camp everyone would relax and sit around the campfire."

Jim said some days – usually 12 hours long before setting up camp at night – were physically draining.

"The effort involved in digging the holes to set up the pits varied greatly, depending on the geology," he said.

"People can get quite drained and sometimes totally physically exhausted.

"It's also a hectic schedule getting around the quadrats in such a time frame.

"We have to ensure that we are on schedule because back at Woodvale they are organising the sampling trips which have to be done before the temperatures in the Pilbara become too extreme."

The Pilbara Biological Survey, which started in 2002 and is scheduled for completion in 2007, focuses on the biodiversity of about 180,000 sq km of the region's wetlands, rivers, grassland savannas, mountain ranges, gorges and tropical woodlands.

There are several components to the survey including the study of flora, waterways and subterranean creatures.



Tristan Farmer (left) and Tom Smith set a fence that connects the pit traps. Photo – Jim Rolfe

Energy Smart CALM

by Sue McKenna

IS your work area burning up too much energy?

You might need to get Energy Smart, in line with the Government's Energy Smart policy where Government departments are being asked to reduce 'stationary' energy consumption by 12 per cent on its 2001 baseline by 2006-07.

Most of us work in offices that have been using energy-saving initiatives since the Energy Smart policy was introduced in 2002... but there's always room for improvement.

If you've got a good idea for saving energy that hasn't been thought of before, tell your manager and see how it works.

Could you save on your power bills? Or alter your air conditioning use? Who turns the photocopier off in the evening? Are your lights on when your office is shut?

CALM has a leading role in conservation and sustainability, and should be a leader in reducing energy consumption and greenhouse gases. To monitor and report on CALM's energy use, it is vital that workplaces provide quarterly reports in the format specified by Greg Beange, Manager of Supply Services. If you are unsure about the requirements, contact John Grenfell at Supply Services, Kensington for clarification.

CALM has an Energy Management Plan to promote energy reduction under the direction of the Energy Smart Committee chaired by the Director of Science, Neil Burrows, assisted by the Director of Regional Services, Alan Walker, and the Director of Corporate Services, John Byrne. John Grenfell is the Executive Officer.

Neil Burrows said everyone in the Department should take measures to reduce energy consumption.

Good examples had already happened at the Perth Observatory and the WA Herbarium, which reduced their energy consumption by 16 per cent and 21 per cent respectively over 12 months.

"They took some relatively simple energy conservation measures such as regulating heating and air conditioning, and turning off lights and other electrical appliances when they were not required," Neil said.

"Renewable energy systems are being introduced into a number of remote sites and work centres in regional areas. Big energy savings can be made in these locations.

"Not only are there cost savings to be made, but by taking such measures, we're contributing to a reduction in greenhouse gas emissions and to a cleaner planet."

Golden Valley Tree Park spring celebration

by Rhianna King

THIS year's annual community Spring Picnic Day at Golden Valley Tree Park in Balingup was a special celebration for the 25th anniversary of the establishment of the park's arboretum – the largest in WA.

The day showcased the six new walk tracks in the park, which is 60 ha of planted trees from more than 1000 different native and exotic species – some of which were established around the earlier farmsteads, and are more than 100 years old. Visitors also had the opportunity to see the newly labelled species and information shelters.

Chair of the Golden Valley Tree Park, Chrissy Sharp, said in 25 years the park had never been actively promoted, but the Spring Picnic was an opportunity to put it on the map even though it already received 15,000 visitors each year.

"People were also treated to live music, an opportunity to dance on a carpet of fresh flowers as well as activities for the kids. Many of these activities were sponsored by Healthway to promote its 'enjoy healthy eating' campaign," she said.

Chrissy, who is co-founder of the project, said Golden Valley was a joint project between CALM and the community of Balingup.

"The land is within CALM's estate and is run by volunteers," she said.

"CALM brings professionalism to the operation and running of the park and the volunteers bring energy and inspiration."



Pictured (left to right) were CALM South West Regional Manager, Bob Chandler, Golden Valley Tree Park co-founders Andrew Thamo and Chrissy Sharp, and long-time volunteer Peter Hicks. Photo – Dennis Fairclough

Bush Rangers' Telethon triumph

HOME economics teacher Carleen Edwards cooked up a storm when she took 27 CALM Bush Rangers from Perth to the Northern Territory last month.

The John Septimus Roe Anglican Community School students climbed into a bus and a 1972 Mercedes Benz to drive 6699 km to raise \$2000 for sick children in the Telethon Toyota Trek.

"It was a wonderful experience for them," said mother of four, Carleen.

"They said that the highlight was getting to the WA-NT and WA-SA borders, because many of them had never been out of Perth before."

The Bush Rangers stopped at primary schools at Warburton, Uluru, Port Augusta and other rural towns to distribute a board game called the Envirogame.

The Mercedes Benz – one of 19 older

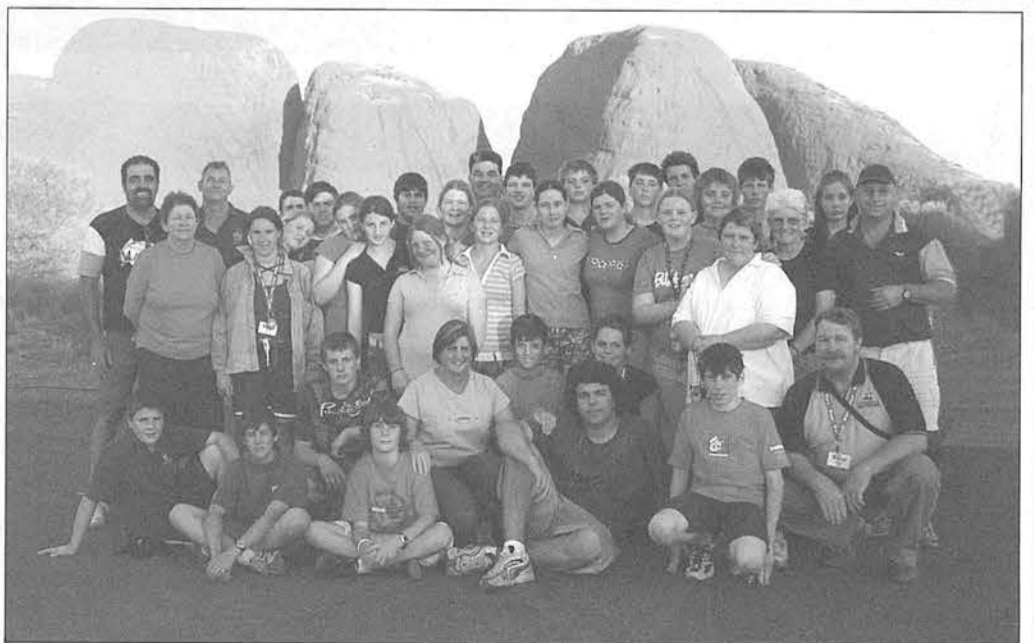
cars on the trek – was christened the Envirocar and featured wooden birds on the roof, as well as a solar panel.

Carleen took nine helpers, and said the Bush Rangers were enthusiastic in helping to prepare dinners and carry out other chores.

"We went to some incredible places and they were amazed to see the differences in their country.

"We stopped at a station and they were delighted at how friendly the local Aboriginal people were. They also decided that the Olgas were far more interesting to look at than Uluru," she said.

Carleen is the Swan Region's Supporting Instructor for CALM Bush Rangers, and began the Bush Rangers Unit at the John Septimus Roe Anglican Community School.



The Bush Rangers, their helpers, parents and teachers at the Olgas. Photo – Carleen Edwards

Driver awareness training a success

by Tracy Peacock

MORE than 780 CALM staff have taken part in driver awareness training courses in the past 18 months.

Conducted by Shawsett Training, the courses have been run in metropolitan and regional areas.

"The driver training courses have been conducted almost across the State in country areas such as Broome, Kununurra, Manjimup, Busselton, Bunbury, Harvey, Collie, Narrogin, Katanning, Margaret River, Karratha, Kirup, Mundaring and Karjini National Park," said CALM Fleet Contracts Officer, Craig Simpson.

"While most people are keen to do the course, there are a few who are apprehensive to begin with, but once they do the course the feedback we receive is all positive," Craig said.

"There are a lot of people in the Department doing large amounts of kilometres in varying conditions.

"The aim of the course is to try to teach people a few additional skills which they can take away and use in their business and personal life, which I think is a very positive step forward," he said.

The Department's Corporate Executive decided to roll out driver training across CALM as part of its commitment to occupational health and safety. The training started in April 2004.

CALM Species and Communities Branch A/Manager, Ken Atkins, said nearly all of his staff had taken part in the driver training courses and had found them very useful.

He said it had been particularly important for a number of his staff because they did a lot of driving in regional areas.

"The course is different to the four wheel drive training course, and added another dimension to driver safety," he said.

Claire Hall, Land for Wildlife Technical Officer, said she had participated in the driver training course at the Avon Valley National Park earlier this year and had enjoyed the experience.

"It was really good and I got a lot out of it," she said.

"I like to think that I got things out of the course that I put into practice every day. I would recommend all employees do the course."

The Department's Publications and Programs Manager, Sue McKenna, had a similar experience.

"I learned so much practical and useful information on the course, and was totally surprised at what I didn't know!" she said.

"The instructors were great, and they also taught us braking techniques and how to react in an accident situation. They showed us how to observe the entire landscape rather than just the road, and all sorts of other things."

Conservation brief

Pay up your traffic fines

The State Government is targeting 40,000 Western Australians with suspended licences for the non-payment of fines as part of a new Time to Pay Up fines enforcement campaign.

To check your licence, go to www.justice.wa.gov.au/fines.

Wheatbelt Bush Rangers plant 100,000 trees in five years

IN the past five years, young people in the wheatbelt have volunteered thousands of hours to nature conservation by planting about 100,000 trees.

The Northam Senior High School CALM Bush Rangers have planted the trees along the Avon River plus on local public and private land.

Instructor David Taylor said in 2005 alone the cadets had planted nearly 20,000 trees.

"We have planted the bulk of our trees along the Avon River with various local groups such as the Friends of the River and the Department of Environment and with support from the Town of Northam," he said.

"Basically we plant the trees that local groups recommend and supply. Along the river we have planted mainly casuarina, eucalypts and acacia varieties, as well as planting rushes and sedges in the river to restore the bank.

"At Grass Valley, about 15 km east of Northam, we have been tackling salinity and erosion problems so we have introduced trees which are salt



Bush Rangers at work on their project. Photo - CALM

by Tracy Peacock

tolerant."

David said the cadets had maintained an area near the Avon Weir for the past five years which now had trees about three metres high.

"The rushes and sedges we planted are having an impact on bank erosion and providing an environment for macroinvertebrates to flourish," he said.

David said the cadets gained considerable benefits from their involvement in the

CALM Bush Rangers program including personal development and community participation.

"One of the major outcomes is the cadets' understanding that the strike rate for trees can be quite low and is very dependent on external factors such as weather and weeds," David said.

"We regularly take the cadets back to the sites to do observations and it's always pleasing when they get satisfaction at seeing their own plants grow.

"This year we participated

in a tree planting day organised by former Northam Senior High School Bush Ranger, Jenna Ryan, which was a great experience for the cadets seeing a former cadet out in the community still planting trees and organising local groups."

The Northam Senior High School Bush Rangers have also turned their hand to recycling.

This year they organised, budgeted and funded 12 brightly-coloured 240 litre bins and crates for offices and the computer room at the school.

"The cadets walk around and collect the crates routinely," David said.

"The amount of paper and cardboard is amazing. We have a big bin just for paper and cardboard which is collected each fortnight and it's full each time before collection.

"We estimate that we've collected more than 50 tonnes during the past year."

David acknowledged the tireless work of instructors Matt Zarb, Beryl Korotschuk and Kylie Taylor who volunteer every week as well as at camps throughout the year.

Carl Beck's future beckons

by Tracy Peacock

LONG-TERM CALM employee Carl Beck says despite the fact that he's leaving after 20 years with the Department, he's looking forward to returning.

The 39-year-old Katanning District Nature Conservation Officer is set to take up a new job at the Katanning Shire Council this month as the Community Services Manager, but sees it as a "stepping stone".

"I'm going to local government as a stepping stone to develop some more management skills in the hope of returning to CALM," Carl said.

He cites family reasons as another consideration in his departure from CALM.

"It's now time to settle down in one spot for a while," Carl said.

He said he and his family - wife Helen and children Sam (11) and Lauren (10) - were all keen to stay in Katanning.

Carl, who started with the Forests Department as a cadet in early 1985, said he leaves the Department with a lot of friends and great experiences.

"I've enjoyed the wide range of work I've been involved in and some of the

places that I have worked," he said.

"But the real highlight has been the people that I've met.

"It's been a fantastic career and I have done some wonderful things, met some great people and seen lots of the State."

Carl said growing up in Pemberton and visiting national parks with park rangers while he was a child inspired him to choose his career.

During his 20 years with the Department he has worked in various locations and roles across WA.

He has worked at Dwellingup, Nannup and Walpole.

Carl started at Walpole as the District Nature Conservation Officer before becoming the Ranger in charge of the Walpole-Nornalup National Park.

Carl left the south-west in 1999 to head north to become the Parks and Visitors Services Coordinator at Shark Bay where he stayed for three years before taking up his position in Katanning.

Although reluctant to single out any

one place as being the best to work, he has a soft spot for Shark Bay.

"Working in a World Heritage area like Shark Bay was a fantastic opportunity. It was a great place," he said.

"Equally, I could say this of Walpole because it was also a great experience."

Carl said his new job with Katanning Shire Council would involve managing the shire's recreation facilities plus concept planning.



Carl Beck (left) pictured with colleague Mark True during his Shark Bay days. Photo - Sue McKenna

Staff changes . . . Staff changes . . . Staff changes . . . Staff changes . . .

Contracts

Judith White, Project Officer, Parks and Visitor Services Division, Kensington;
Bernard Ong, System Administrator, Information Management Branch, Kensington;
Holly Marlow, Officer, Busselton District;
Cally Anne Uren, Reserves Officer, Denham;
Paul Connolly, Principal Compliance Officer, Wildlife Protection Branch, Kensington;
Donna Brunini, Analyst Programmer, Information Services Branch, Kensington;
Michael Barth, Research Scientist, Albany Research Centre; Jillian Chew, Officer, Information Management Branch, Kensington;
Jennifer Francis, Technical Officer, Kununurra; Derek Monks, Technical Officer, Kununurra; Maria Wauchope, Regional

Planning Officer, Goldfields Region, Kalgoorlie.

Permanent

Jean Stewart, Principal Media Liaison Officer, Strategic Development and Corporate Affairs, Crawley; Anthony Richardson, Reserves Officer, Goldfields Region, Kalgoorlie; Daniel Cock, Reserves Officer, Katanning.

Promotions

Richard Reid, Nature Conservation Officer, Swan Coastal District, Wanneroo; Arvid Hogstrom, Regional Leader Parks and Visitor Services, Exmouth; Lucy Tan, Senior Finance Officer (Revenue), Finance Branch, Kensington; Nicole Ireland, Project Officer, Financial Services Branch, Kensington.

Criteria progressions

Jane McRae, Senior Technical Officer, Wildlife Research Centre, Woodvale.

Temporary deployments

Melissa Hoskins, Conservation Officer, from Wildlife Research Centre, Woodvale to Swan Coastal District; Clare Clarke, Leasing Officer, from Information Management Branch to Property and Policy Unit, Kensington.

Leave without pay

Russell Venn, Disease Hygiene Officer, Forest Management Branch, Bunbury; Josie Dean, Field Officer, Albany District.

Resignations

David Whitelaw, Regional Leader Parks and Visitor Services, Karratha; Julie Wyland,

Toolibin Project Officer, Narrogin; Kristy Mann, Project Officer, Tourism and Marketing Unit, Kensington; Erica Higginson, Conservation Estate Officer, Park Policy and Services, Kensington; Brent Barrett, Research Scientist, Albany Research Centre; Andrew Hill, Senior Marine Planning Officer, Marine Conservation Branch, Fremantle; Larry Ford, Technical Officer, Kununurra; Carl Beck, Nature Conservation Officer, Katanning.

Contracts ceased

Gaynor Stanicic, Receptionist, Biological Information Group, WA Herbarium; Ryan White, Officer, Information Services Section, Kensington; Maria Dumitro, Officer, Strategic Development and Corporate Affairs, Kensington.