



Icy Creek CEP project

ready for public use

By Colleen Henry-Hall

GAMES will be played alongside interpretative nature walks at Icy Creek, CALM's first school and group camping area in the Lane-Poole Reserve.

The project was completed recently by CEP workers who have been building roads, installing toilets and landscaping the area since January.

Dwellingup Forest Ranger Peter Burton was in charge of the project; Overseer Keith Harris supervised the CEP workers; and Phyona Robertson, a landscape architecture student at Canberra's CAE, who worked at CALM over the summer holidays, drew up the plans for the Icy Creek project.

Senior Landscape Architect Richard Hammond said the enthusiasm and ideas of the CEP crew played a major part in the success of the project.

He said: "If they had an idea for how to do something better or differently, they came to me and we discussed it and most of the time we did it their way."

The 179ha Icy Creek was private property within the Lane-Pool Reserve before it was bought by CALM.

A brick house has been renovated to serve as a resource centre and former vegetable patches have been cleared and planted with clover to provide open space for games and gatherings.

Icy Creek is a bush camp and has few amenities.

Cooking will be on fire rings, sleeping will be in tents, and washing will have to be later because the camp has no running water.

The camp has a bush amphitheatre among the trees for students to sit and listen to their teacher, walk tracks, dams for swimming and campsites for disabled persons.

The camp will eventually be able to accommodate about 200 people in campsites ranging from primitive to slightly more developed.

The developed campsites are closer to water, have more fire rings, tables and toilets and defined spaces for tents.

The primitive sites will have primitive toilets and simple tables.

The camp will be open year round for bookings by

schools and other groups.

Teachers who visited the camp recently were enthusiastic about its use in the environmental education of primary and secondary students.

Informal talks with the Education Department are being held to further develop the camp for use by the State's teachers and students.

Work will continue as resources become available.

Scholarship for employees

CALM is offering a \$5000 scholarship to a qualified employee to participate in the second year of a CALM fieldofficer cadetship.

The scholarship is being offered because eligible staff may not consider participating in the cadet programme because of economic loss.

Executive Director Syd Shea said: "I believe there are people on our staff who have much to contribute, but for various reasons, haven't had the opportunity."

The Executive Director's Scholarship is open to all CALM employees who have had at least five years of service by the closing application date, have the minimum academic qualifications, are well recommended by their district manager

or equivalent, and supply evidence of medical fitness.

The cadetship year runs from early January to early December.

The scholarship will be awarded before the end of 1986 and will apply to the second cadetship year beginning in January at the Cadet School in Dwellingup.

It will be additional to the ordinary allowance of the cadet agreement.

The selection of the recipient will be by a selection panel and approved by the Executive Director.

Further information is available from Frank Pridham on (095) 38 1001 or by interview.

Pilot's lucky escape

GRAHAM LOWE is lucky to be alive after his light aircraft crashed near Wellington Mills recently.

Graham, of Bunbury, was fertilising pine forests for CALM when his light aircraft crashed near Wellington Mills.

The plane hit the tops of trees, and crashed to the ground wedged between two jarrah trees.

The right wing of the Transavia Air Truck was embedded in the ground.

The impact tore the engine from its mountings and both the windscreen and the instrument panel were pushed into the cockpit.

Fortunately, Graham had enough room to squeeze out of the cockpit, drop the three metres to the ground, and walk away.

He was taken to Bunbury Regional Hospital and released after a check-up.

The plane was taken to the local rubbish tip.



The aircraft was wedged between two trees.

WHALE WORKSHOP HOSTED BY CSIRO

THE reappearance of humpback and southern right whales in WA waters during the winter and spring months is a reminder that marine mammals are an important component of the State's wildlife.

Conservation and management problems for marine mammals in Australia, as well as research needs, were the subject of a workshop hosted by the CSIRO Division of Wildlife and Rangelands Research in Canberra in March.

The workshop was attended by 25 scientists and wildlife managers from Australian universities and museums, the CSIRO, and State and Commonwealth government agencies responsible for nature conservation, fisheries and

Antarctic matters, as well as a visiting American humpback whale researcher.

CALM was represented by Keiran McNamara, Scientific Adviser to the Director of Nature Conservation.

In his presentation to the workshop he pointed out that the WA coastline of 12,500km was one-third of the Australian total and encompasses both tropical and temperate areas.

The State's marine mammal fauna is correspondingly large and

diverse, comprising about 31 cetacean (whale and dolphin) species, two resident seal species and the dugong.

Some of the topics which the workshop felt required attention were monitoring of the recovery of previously exploited whale species, systematic baseline surveys of the status of seal populations, investigation

and resolution of marine mammal-fishery interactions (eg entanglements of dolphins in gillnets), co-operative management with Aboriginal communities of dugong populations subject to harvesting, and a better understanding of the dynamics of Southern Ocean ecosystems.

Research and survey work on marine mammals is generally difficult and expensive.

It also requires national and international co-operation, as many species show little respect for State and national boundaries.

The CSIRO is preparing a summary report on the workshop, which the Division of Wildlife and Rangelands Research is using to assess its potential involvement in marine mammal research.

Softwood Scheme expands

THE State Government has expanded the softwood sharefarming scheme to the Albany region as a result of the response from South West landowners.

Conservation and Land Management Minister Barry Hodge said this could lead to a significant new timber industry in the Albany region.

The decision was welcomed by the Albany, Denmark and Plantagenet local authorities at meetings with CALM officials.

Mr Hodge said the original scheme invited farmers in the Manjimup and Bunbury regions to grow

pine on their land in joint ventures with the State Government.

The first agreement was finalised recently with Mr and Mrs J. Frith, of Bridgetown who will plant 140ha of pine on their property.

Several other agreements would be finalised within the next few weeks.

The high level of interest outside the Bunbury and Manjimup districts prompted the Government to expand the scheme to the Albany, Denmark and Plantagenet Shires.

There were indications that up to 15,000ha of radiata pine could be planted in the Albany region.

COMPUTER SYSTEM UPDATE

THE Hardwood Logging Computer System which was launched on April 1 is operating without a hitch.

However, the system's designers are still putting on the finishing touches and Computer Services Programmer Heather Sinclair is working out the finer details of the system, adding necessary functions or correcting faulty ones.

The computerised accounting system was put together over two years, from direction from the Timber Production Branch.

Les Cooper and Neville Pratt began to work out the scope of the system and the areas it should cover, in March 1984.

Accounts, Registration, Timber Production, Operations and Inventory told them their requirements of the accounting system.

Neville and Les took that information, produced a report and then designed the system that is in use today.

"It was the biggest project Computer Services has been working on recently," said Computer Services Manager, Trevor Morgan.

He said Computer Services was now introducing an electronic mail system, developing a Records Management System and working on the General Ledger System.

From my Desk

SEVERAL weeks ago, I attended a Seminar on management by an American who claimed that if an organisation did nothing but provide "feedback" to its employees, it would double its productivity.

He also made the observation that "if you don't know where you are going, then any road will do" in the context of the need for organisations to set clear management objectives.

I believe that these two concepts are very important. They are, of course, inter-related.

If you don't know what the objectives are, you can't measure performance and there can be no "feedback" because you and the organisation don't know whether we are making progress.

One of the most successful functions that we do carry out in this Department is our safety programme.

Much credit for this must go to Arthur Kesners and Tom Wood.

Its success derives from the fact that the objectives of safety are clearly defined, the performance of individuals and the Department is clearly measured, and there is a very active "feedback" system.

In other words, if your safety programme has been successful, your success is acknowledged.

Of course many of the functions we carry out in this Department are very hard to measure.

It is also often difficult to define objectives. Because it is difficult is no excuse for the fact that we have not clearly defined our objectives and measured our performance.

This is particularly important now in a time of severe financial constraints.

If we are to tackle the problem of deciding what are the priorities for this Department, we must clearly define our objectives first.

If we are going to do more with the resources that we have got, we need to measure our performance because we can do much more with the resources that we have got if we provide "feedback" to those people performing the functions that have been allocated to them.

I believe we are now approaching the stage where we can more clearly define our objectives.

Over the last three months, we have gone through the process of defining a broad framework of objectives in the corporate plan.

Much of the credit for this goes to Dexter Johnston and Andrew Burke (from the Public Service Board).

Within the next few days, you will be receiving copies of the outline of that plan which sets out our basic objectives and the principle strategies by which we hope to achieve them.

It is now the responsibility of branches and individuals to set their objectives and the strategies by which they intend to achieve them.

When we have completed the corporate plan we will be in a much better position to specify our objectives, establish our priorities and measure our performance.

Then we can make sure that there is "feedback" so that people can feel satisfied that they are achieving something.

SYD SHEA

Greg's a first for marine park

UNDER the water, on the water, on the beach: all are places Greg Pobar will care for as WA's first marine park manager.

Greg, who is currently based at CALM's Metropolitan Branch at Murdoch House, looks after Marmion Marine Park, which is vested in CALM.

Greg's manner, years of diving experience and marine science research made him the obvious choice for the new position.

All his skills will be drawn on to "allow people to recreate in the marine park environment, but at the same time conserve resources so they can do that for a long time", as Greg describes his goal as manager.

"Every water sport and beach sport occurs within the park," Greg said.

He'll have contact with the family out for a day on the beach, boaters, fishermen, surfers, divers, conservationists, scientists, the Department of Marines and Harbours, and the CSIRO, just to name a few.

Originally from Queensland, Greg earned a Bachelor of Science degree in Marine Science from James Cook University.

While at university, he became involved in sports diving, and later became a diving instructor.

He also did research on the Great Barrier Reef on subjects such as the Crown of Thorns starfish, whales

and the Giant Clam. He said his skills as sports diver and researcher equipped him for the position in that he can watch over the fragile areas beneath the surface as well as recognise what is there and know its environmental value.

In Perth, he has worked with the Department of Conservation and Environment in contract research work in the Dampier Archipelago, the Marmion Marine Park, and from Garden Island south to Warnbro Sound.

Greg will be based at Hillarys Boat Harbour when it is completed.

The Marmion Marine Park lies alongside Perth's northern suburbs and includes the coastal waters and foreshore from Trigg Island in the south to Burns Beach in the north.

The Park includes clear, shallow lagoons, the Marmion Reefs, a series of smaller reefs and tiny islands, underwater caves and some of Perth's best beaches and fishing areas.

It has a diverse and colourful range of marine flora and fauna. The reef's vivid coral formations are unsurpassed locally as an underwater spectacle.

The area is both safe and accessible for community use and also has considerable conservation value. On the recommendations of the EPA System 6, the area was set aside as a multi-purpose marine park for recreation, conservation, education, scientific research and fishing.

A management complex will be built at the boat harbour providing offices for CALM staff and storage facilities. An Education Resource Centre, also in the complex, will provide information to the public on the natural resources and facilities of the Park and explain and interpret the structure, dynamics and natural history of the coastal waters and foreshore.

It will also be an activities centre for school groups and a base for organised educational field programmes for schools and the public.

A boat for use in his duties will be moored there.

A Fisheries Officer will work with Greg, providing a second person for diving and boating, and someone able to enforce fishing regulations.

Greg will observe how people use the park, both above and below the water, and survey the ocean flora and fauna that inhabit this unique area.



GREG POBAR checks the air in his diving tank.

PETER RICHMOND RETIRES

APART from vague plans to go to England, recently retired Advisory Officer Peter Richmond says he's just going to sit back and think about things.

Peter refused to call it "retirement" which, he says, has negative connotations.

"I don't look at it that way, it's just another phase of my life," Peter said.

The forestry phase of Peter's life has been long and extensive.

Coming from Tanganyika via the United Kingdom where he earned a diploma in forestry, Peter joined the Forests Department as a forest officer at Nannup in 1963.

There he was involved in pine plantations, hardwood operations and the nursery.

In 1971 he transferred to



PETER RICHMOND

Kalgoorlie where he became interested in the management of sandalwood in the Goldfields and became involved in extension work around Esperance, the two areas he most recently specialised in.

In 1980 he came to Perth as an advisory officer.

Here, he was responsible for the Goldfields and Pilbara regions, private forestry and sandalwood.

Peter said: "Sandalwood was entirely new to me.

"During my time in the country, I found the sandalwood industry fascinating."

TOP MAP MAN

DON EDWARDS has been appointed Manager, Mapping Services in the Mapping Branch.

Don joins CALM from the Valuer General's Office where he was chief draftsman.

He said he is particularly interested in ergonomics, which he describes as the "scientific study of the relationship of a person to their environment".

It is a study especially relevant to mapping, where people operate in one position for a long period of time.

Don joined the public service in 1949 as a trainee clerk in accounts with the Lands and Surveys Department.

Don, who has been involved in field operations in remote areas, understands the need for CALM field staff to have accurate mapping information as quickly as possible.

"I appreciate the needs of the field officers in terms of being able to get access to accurate information from the Head Office," he said.

"I'll endeavour to ensure maximum service for a minimum cost here at Mapping."

Peter has also had a hand in getting the practice of agroforestry off the ground in WA.

He said more research in the subject has been done here than in any other State and that "it is definitely the way to go if a farmer wants trees on his land".

He explained that agroforestry differs from pine sharefarming in that agroforestry is for the farmer who wants to grow trees himself rather than having them grown for him.

Peter is quick to credit his wife with much of his success.

He said life in the country and frequent moves made life difficult, and without her understanding and help, he wouldn't have been able to do it.

"I've enjoyed working here tremendously," Peter said.

"After all, it's your show; you're the one that makes or breaks it."

Peter Richmond is one of those who made it.



STEVE QUAIN

Steve's destiny linked to trees

THERE is a giant Queensland Red Cedar growing in Victoria Park.

Years ago, a boy named Steve Quain watched its growth closely, keeping track of how much it had grown since the last time he had passed.

Recently, Steve retired as Divisional Manager, Operations, after serving forestry for 33 years.

Steve believes it was by chance that he chose a career in forestry.

But any boy who keeps tabs on the growth of a tree must have had a special affinity for the forest, and the happiest times of his career were the days he spent in the bush.

"There was more fun and less hassle there," he said.

"I'll always miss the people here, no doubt about that.

"I certainly won't miss the travel."

Since his appointment as Operation Manager, Steve's time has been shared between the Bunbury Regional Office and Como.

Steve Quain joined the Forests Department in 1953 after graduating from the Australian Forestry School.

His first job was at Shannon River which was followed by a number of assignments in the South West and a year's working holiday in Canada.

Steve was appointed officer in charge at Shannon River in 1958.

He then transferred to Gleneagle and was in charge of Forestry Cadets for seven years.

In 1966 he went to Warreroo as Officer-in-Charge before returning to Manjimup in 1967, where he worked for eight years as an Inspector and Superintendent.

At Manjimup he was involved in convincing the timber industry to switch from selective cutting to the clearfelling system developed by the Department.

"There were lots of other people involved in

the area too, but I was in operations and I had to go and convince the mill managers, the tree markers and the fallers that this was a good deal," Steve said.

He was also involved in taking aerial burning from the experimental stage to use in general operations.

Later during the same period, the woodchipping industry began and Steve had his hand in that as well.

In 1975, he went to Bunbury as Superintendent, becoming Chief of Operations and then Assistant Conservator.

He was appointed Divisional Manager, Operations, in 1984.

"I've enjoyed all aspects of field forestry," Steve said.

"But it became less interesting and enjoyable as I became responsible for administration."

What will he do now?

"The ocean owes me a few decent fish," Steve said.



DON EDWARDS



DRYANDRA CEP workers (from left) are Linda Williamson, Suzie Harper, Brian Sice and Jack Lay.

Facelift for Dryandra Forest Village facilities

By Steve Gorton

A CEP project to upgrade the facilities at the Lions' Dryandra Forest Village has been completed.

The programme started in November 1985 through the efforts of Steve Gorton (District Forester, Narrogin); Eugene Herbert (Landscape Architect), Tammie Reid (Education

and Information Officer), and the Lions Club of WA.

The project goals were to:

- Develop an Information Resource Centre;
- Define usage areas and upgrade facilities around multi-accommodation units (Nissan huts);
- Define vehicle access to all facilities;
- Upgrade the swimming area;
- Resite fence and upgrade access to recreational paddock near the settlement; and
- Develop basic resource material for use at the Resource Centre.

All the goals were achieved through the time and efforts of the crew.

The team was led by acting Overseer Merv Beacham.

The carpentry skills of Bruce Sice was one of the main reasons for the success of the project.

Linda Williamson started working with the group on site, and, after induction from Tammie Reid, developed an extensive

ecology resource file for the centre.

Jack Lay, a hairdresser for many years, proved to be a first class worker and assistant to Brian.

Jack's forte was his conscientiousness and the quality of his work.

Suzie Harper found the work tough at times but stuck at it and gained experience and pleasure from the project.

With the completion of

the project, the settlement is more formally organised for vehicle and people interactions.

The Ecology Information Centre will be named Irabina.

The name, Aboriginal for awakening, was selected by Linda.

Dryandra is already used by tertiary, secondary and primary groups and it is hoped its use will increase through more promotion.

BRIAN SICE, a man of many talents, is a North Territorian, keen 60s music lover and genuine Crocodile Rocker.

He hosted the Narrogin District Staff to a hungi feast to christen Irabina.

Not having experienced a hungi before, we were a little sceptical of its outcome.

No worries. After seven hours under the ground, the pig, chicken, fish and vegetables were cooked perfectly.

Washed down with numerous tinnies, it tasted even better.

The work group were presented a small token of appreciation — leather bound tinny holders suitably inscribed and made by our Towerman and Signmaker, Greg Ferguson.

The goal now is to see the centre developed and managed to the benefit of all users, a task for the District Staff at Narrogin with the help of CALM branches.

— STEVE GORTON

Natural vegetation a valuable farm asset

By Colleen Henry-Hall

TREES are valuable assets to any farm: they decrease wind erosion and provide shade and shelter for livestock, greatly improving agricultural productivity.

CALM is committed to seeing more trees established in agricultural areas from

Geraldton to Esperance. Natural regeneration is an expensive way of increasing the number of trees and shrubs on farms.

Some trees still exist on farms singly and in shelterbelts, strips of woodlands which have been left during clearing.

But these remnants of natural vegetation are in danger because it is difficult for them to regenerate successfully.

Trees, following nature's aim to continue the species, will fruit and release seeds, which, in the right conditions, will establish themselves and become mature trees.

With erosion, compaction by stock and equipment, highly competitive and aggressive introduced plants, and grazing by stock, it is not surprising that natural regeneration is rare.

The farmer's role, essential to successful natural regeneration on farms, includes ground preparation and fencing.

In assured rainfall areas, regeneration of some eucalypts can be achieved simply by fencing an area around the tree to exclude stock.

Regeneration can be increased greatly by also preparing the ground in any number of ways to cut down on weed competition.

The most successful method is to grade strips of the top five to seven centimetres of soil on the contour to the bottom side during spring or early summer.

This technique will also harvest any rainfall, which will increase the seedlings' growth.

Seed from the tree will

drop onto the bare ground during late summer and autumn and germinate without weed competition following the winter rains.

Contact herbicides may be used by themselves or in conjunction with mechanical weed control.

The use of residual herbicides among existing native vegetation is not recommended.

Burning the area is also effective if the fire is hot enough to partially sterilise the soil and kill any weed seed present.

To burn properly, old stags and dead timber should be removed to create openings in the stand.

This material is then heaped over an area in large enough quantities to ensure a hot fire.

The area of the fire heap depends on the size of the openings and available fuel.

To get the greatest amount of regeneration, a number of factors are necessary:

* Fence the area to be regenerated.

* Eliminate weed competition using methods mentioned above.

* Assess trees to determine whether they have ripe fruit. If ripe fruit isn't present, it must be obtained from trees outside the immediate area or from a reliable seed merchant.

It is trees well adapted to local environmental conditions that provide seed for natural regeneration.

The wildlife that has evolved with and uses local trees for food and shelter also benefits if the regeneration is natural.

Shed areas, paddocks, laneways and yards can all become sites for natural regeneration and benefit from the increase in trees.

CALM employs rural advisory officers responsible for each of the farming regions.

They give advice and provide information about the establishment of trees on farms.

Meeting decides Peel Inlet plan

A DRAFT fire management plan and working programme will be developed for nature reserves bordering Peel Inlet.

This was decided at a meeting at Pinjarra recently between local farmers and CALM.

About 20 farmers attended the meeting.

The meeting accepted that the Nature Reserves had important conservation values.

Farmers indicated that they were willing to participate in developing a draft management plan to conserve the Reserves' conservation values and to overcome the fire hazards.

They will also assist with burning programmes.

A farmers advisory committee was formed.

Another meeting will be held at the Shire of Murray offices on August 26 to discuss the plan and works programme.

Duck watch at tip

WATERBIRDS will probably think twice about resting at the waste pond at the Gosnells rubbish tip.

Flashing amber lights and plastic tassles have been recently installed at the pond to deter the ducks from landing.

The action is in response to reports of ducks becoming ill and dying at the tip.

After consultation with environmental specialists and a visit to the Gosnells Rubbish tip, Wildlife Officers Mark Barley and Trevor Walley suggested that flashing amber beacons, the type used by roadside workers, be used at night.

Plastic tassles were strung up about four months ago to frighten the ducks away.

However, the ducks continued to arrive in the evenings when, it is thought, they saw the surface reflection but not the warning tassles.

AERIAL LIBRARY COLLECTION BEST

"IT'S not the biggest, but it's the best," says Cheryl Watters of CALM's Aerial Photograph Library.

Cheryl, who is attached to the Mapping Branch at Como, is librarian for the collection, which is available for use by staff.

The library contains aerial photographs of the South West, plus many for other parts of the State.

Each project is indexed detailing the area covered by the aerial photography run and where copies of the photographs are held: Operations, District or Regional Offices.

The library also contains information on the extensive collection of photographs held by the Department of Lands and Surveys, which has the biggest aerial photograph library in WA.

Cheryl only needs to know the area and she'll hunt up the photograph you need.

If you require photographs or would like more information on the aerial photograph library, contact Cheryl Watters or Des Muir in Mapping Branch.



BRIAN SICE retrieves the hungi from the pit.

INMAGIC system boost for CALM

THE LIBRARY has now loaded a database software called INMAGIC and is currently working on standard format for inputting of data.

Two databases of interest to CALM staff are

the catalogue and journals databases.

The catalogue database initially will include books, journal articles considered relevant to the Department's interests, and articles in books.

We hope to incorporate country office library collections and semi-permanent loans within the catalogue database.

The journals database will include journals held in the library, their frequency, publishing details, subject descriptors, etc.

A pilot project, using the Canning Bridge library collection, is being undertaken.

As the collection is small, it will enable us to use the information to improve formats for future use of the catalogue database.

The database can produce spine labels and be searched on any field including combinations from which printouts can be produced.

However, the system is still in its early stages.

As the necessary funds become available, we hope to upload the data onto the proposed VAX system.

This will give staff access to the system via a terminal and modem connection.

It is hoped that this database system can be used to input information by staff to create a uniform "Central database of Information".

— ELISABETH LACZO
• JOCK Gilchrist is retiring, and everyone is invited to his send off on Thursday, August 14.

The farewell function will be held at the Esplanade Hotel, Busselton.

Pre-dinner drinks will be served between 6.30 and 7pm and a three course dinner to follow.

Cost is \$15, which must be paid beforehand.

For further information contact Frank Townsend at Bunbury Regional Office.



CHERYL WATTERS



Where are we? Pieter von Aalen, Richard Pemberton, Graham Regan and Drew Griffiths pause to take bearings.

Firefighters solve airwaves jam

RADIO-COMPUTER LINK UP

A TWO-WAY radio set hooked up to a computer will enable CALM fire fighters to communicate more rapidly and with greater accuracy.

The fire in the Wanneroo District last summer indicated to CALM Fire Protection and Communications officers that the single radio channel is insufficient to handle the volume of information between the firefront and the District Office.

The solution to the air-wave jam could be the "mobile radio data system" being bought by the Department before next summer.

Interfacing the existing CALM radio channel with a personal computer, the system senses a break in radio transmissions to send, via the radio channel, a message that has been keyed into the computer. The message is printed at the receiving end.

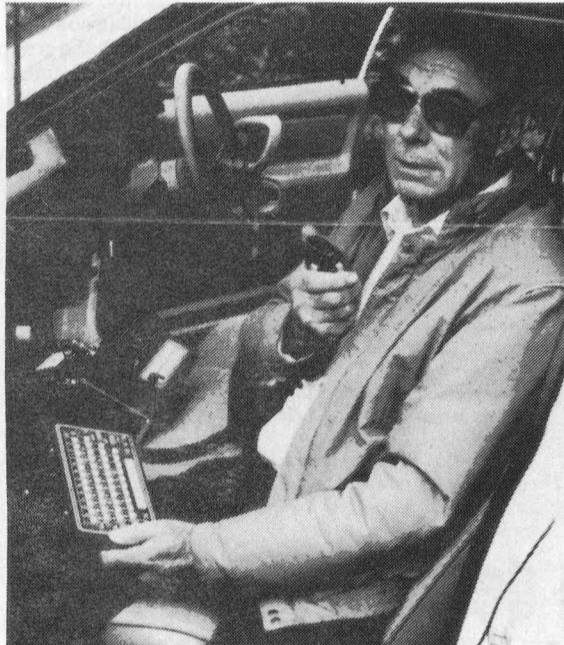
The system, which consists of a keyboard, display unit, printer and software,

was given a trial run in a one-day workshop at Mundaring District recently.

Fire Protection Branch and Communications Branch organised the workshop and prepared a simulated Large Fire Organisation to make the demonstration as realistic as possible.

A debriefing concluded that data communication during the exercise had been successful and would be of great benefit in controlling a real bushfire.

A group comprised of Rick Sneeuwjagt and Brian Cornell, Fire Protection Branch; Graeme Hutchinson, Communications; Trevor Morgan, Computer Services; Dave Mell, Wildlife; and Allan Briggs, Wanneroo District Manager and District Representative, has been formed to evaluate its use.



BRIAN COUCHER, Fire Protection Officer, Northern Forest Region, sends a message using the mobile radio data system during a demonstration at Mundaring District office.

Lake for the birds

GOLF course, rubbish tip, pine plantation, tourist resort — all have been suggested uses for Thomsons Lake before the environmental importance of this wetland was realised.

Thomsons Lake, a 509ha nature reserve located about 25km south of Perth, is an important breeding site and

refuge for waterbirds, and the largest and one of the less developed of a chain of freshwater wetlands strung along the coast.

Last year, 21,000 birds of more than 100 species were recorded at the reserve, as was the first Barn Swallow sighted in the South-West.

Introduced plants such as pampas grass and thistles have invaded the reserve and replaced native vegetation in some areas.

Fire is also a threat of the small landholdings surrounding the reserve.

But perhaps the greatest management challenge is that posed by people.

In the past, the use of motorcycles and horse riding has damaged vegetation and degraded water quality.

Recognising the importance of the Thomsons Lake Nature Reserve to the community and to the animals and plants that depend on it for survival will ensure that it won't become a golf course.

get that information and modify future plans if necessary.

Dr Davis said that expert systems can use computer-stored inventory data as well as user supplied data, such as weather conditions, to be operated on by the rules.

In any system, the chances are slim of completely specifying all the rules that should be applied, as is the chance of having all the inventory data that would be necessary.

However, because the process is so exhaustive, many experts have learnt a lot through the necessary organisation of their knowledge for computer application.

They are then better able to assess new information as it comes to hand.

Richard will return in November.

In the meantime, Manjimup Research and Como Inventory Branch have ADAPT, which can run on Olivetti personal computers.

Contact me on (09) 367 0335 if you are interested



MUNDARING Clerical Officer Jill Southgate used the mobile radio data system quickly and efficiently, thanks in part to her typing skills.

TALKS STIMULATING

By WARWICK BOARDMAN

TWO stimulating talks on knowledge-based computer systems were given in the SOHQ Training Centre recently by Dr Richard Davis, CSIRO, Canberra.

One session dealt with computers in land use planning, the other on "expert systems".

Dr Davis said he hopes his planning tool, called "ADAPT", will be more useful to planners than other systems which emphasise the rational approach.

In a rational approach system, planners must assign numbers to complex concepts.

If a plan looks nonsensical, planners cannot determine what must be changed to produce a better plan.

Dr Davis explained that ADAPT can help planners identify major decisions.

They are able to quickly see where important strategic data is missing so planners can

Skill course tests mettle of deskbound

By COLLEEN HENRY-HALL

RAIN hit my thin rainjacket with the velocity of bullets. I was soaked from the inside out with sweat from carrying a 14kg pack through dense bush and from the outside in with rain that seemed like it would never stop.

The last thing I wanted to do was take my boots and socks off (my feet were the only dry things left) and cross the raging torrent of a creek at Moon's Crossing in the karri forest near Pemberton.

By the temperature of the water I knew there had to be a glacier hidden in the karri forest somewhere.

I slid my iced feet over the slimy rock inch by inch, knowing that no matter how cold and wet I was, I would be even colder and wetter if I fell into the creek.

It was about this time I started asking myself what I was doing here.

Given the chance, I would have taken the next ride to Perth and never looked back.

But pride is a very motivating force: I couldn't admit defeat to five equally wet and miserable people.

Now, snugly back in my Perth office, I've rationally assessed the experience and decided the Expedition Skills Course, run jointly by CALM and the departments of Sport and Recreation and Education, taught me quite a few things I wouldn't have learned anywhere else.

The week-long course is held at the Education Department's Pemberton Camp School three times a year.

CALM provides most of the expedition leaders for the course, which is an in-house training programme for the three government departments, as well as an

elective for UWA physical education students and training for the Duke of Edinburgh Award, Police and Citizens, Scout and Guide Leaders, Community Youth Support Scheme and other leadership groups and interested individuals.

The course I attended was mostly comprised of teachers with an interest in outdoor or environmental education.



Drew Griffiths, Recreation Projects Officer, and Richard Pemberton, Cape Arid National Park Ranger, were leader and co-leader respectively, of the six-member group I joined.

Manjimup Forester Alex Moylett led another group and Neville Holland, Walpole Forester, helped out as co-leader.

Rob Klok, Leeuwin-Naturaliste National Park Ranger, was co-leader of another group which Ludlow Forest Ranger Andrew Darbyshire joined.

The first two days were spent at the camp learning the basics of navigation, differences in equipment, camping nutrition, ecology, safety and first aid.

On the three-day expedition that followed, four groups of six people, each with compass and map in hand, set about finding their way through dense bush, crossing swollen

streams, setting up camp, cooking on tiny stoves, and trusting each other when it came to making decisions.

One thing we didn't learn in the classroom was how to put six very different people together so they could work together to survive in a semi-hostile environment with a reasonable degree of comfort and in safety.

The course became a lesson in group dynamics: each person in the group was leader at least once and was responsible for getting the group to the next check-point or organising the camp at the end of the day.

And all had a shot at crashing a way through dense undergrowth or keeping track of how far we had come by counting steps taken or bringing up the rear to make sure no one got separated from the group.

Back at the camp, we spent one day assessing how we had done.

Andrew Darbyshire who impressed his group no end by showing them that soapbush really does lather, said he'd like to return as a leader: he is interested in the area of training at CALM and the course had taught him much about the subject.

Richard Pemberton, who works alone in vast Cape Arid National Park, already knew quite a lot about bushcraft, navigation and rescue procedures, but found the information on nutrition and equipment invaluable.



The group, back at the camp school, discuss their performance during the expedition.

'Extinct' plant found

A PLANT thought to have been extinct has been discovered during surveys of Toodyaya shire nature reserves by Research Officer Greg Keighery.

A population of *Grevillea scabra* was located during the 1984 surveys done for the management plan of the area, but it remained unplaced until Sue Patrick (who is working on extinct and endangered flora of the wheatbelt), saw slides of the

species and thought it could be the very rare *G. canolleana*.

Upon checking, Greg found it to be the even rarer *G. scabra*.

Greg said it was an attractive species in flower and might have considerable horticultural potential.

"Fortunately, the rediscovered species is in a relatively large, secure reserve, which also has other rare wheatbelt plants," he said.