





HE Perup Forest lies 50 kilometres from Manjimup between the headwaters of the Perup and Tone Rivers, tributaries of the Warren River. It is situated in undulating country, with broad, flat valleys and low ridges. The rainfall is low and streams and swamps in the area are seasonal.

Like most of the South West jarrah forests, the Perup forest has been harvested for commercial timber. The area was first harvested during the early 1940s; logging and regeneration continued up until 1976. At that time 40 000 hectares of jarrah forest and wandoo woodland were set aside to study and manage forest animals.

Part of the area was once a cleared farm surrounded by State forest, a fact put to good use when the farm was abandoned in 1972. At that time the Forests Department was starting work on fauna, so the area was acquired for research into the effect of fire on forest animals. Much of the early research on the numbat was done here, and it was as a result of other research at Perup that the fox was first implicated in the disappearance of a number of mammals from many areas of the South West.

The area also has many rich fauna populations, including six threatened animal species: the numbat, woylie, tammar wallaby, western ringtail possum, southern brown bandicoot, and the chuditch, or native cat. These populations are regularly monitored to ensure they are maintained at a satisfactory level. Many species have been recorded in the area: birds (more than 120), some mammals (21) and frogs (6). Reptiles, notably the deadly tiger snake, are also visibly abundant.

As CALM staff began spending more and more time in the area, they decided to establish a research centre at Perup. The old farmhouse was ideal for this purpose, and the researchers began renovating the building to make it suitable for a study centre. Over time, additions were made and it is now an excellent facility capable of accommodating sizable groups.

The centre even has its own resident fauna - bandicoots live under the house and a brushtail possum lives in the old wood stove. If the lid of the stove isn't properly secured, scientists using the house can find that the animal has had an overnight party with their food.

A male splendid fairy-wren in full breeding plumage. Photo - Jiri Lochman ▲

The jarrah forest is one of the last strongholds of the chuditch.
Photo - Michael Morcombe ◀

## FACE TO FACE WITH WILDLIFE

Researchers Per Christensen and Graeme Liddelow had long been running a course for staff of CALM, and earlier for the Forests Department, to illustrate the Department's research methods. They were asked to include the course on the University of Western Australia's Extension Program. Per and Graeme readily agreed and now, four times a year, a varied group of people make the long journey from Perth to Perup.

The course, called 'A Wild Weekend with CALM', aims to bring people face to face with wildlife they wouldn't otherwise see, and teach them about research into the forest and its inhabitants. Proceeds from the course help to maintain the Perup Forest Ecology Centre, as it is now called.







Students on the Perup course go spotlighting for animals such as this ringtail possum and her youngster. Photo - Michael Morcombe 

CALM researcher Graeme Liddelow with one of the birds caught in a mist-net.

Photo - Carolyn Thomson A

The jarrah forest of Perup is a haven for six threatened mammal species. Photo - Jiri Lochman

Each night, course participants are taken 'spotlighting' for nocturnal animals. Possums, including the threatened ringtail, are abundant; so are kangaroos, bandicoots and nocturnal birds like the tawny frogmouth. At some times of the year many possums have young and, as the vehicle moves off, the youngsters can often be seen clambering onto their mother's back. Spotlighting is the main source of data for animals like the ringtail possum, which is difficult to trap. It is also a good way to learn how to recognise the various species and their habits.

The woylie, or brush-tailed bettong, occurs throughout most of the forest area. Its population is still substantial at Perup, despite predation by the fox. Because the woylie is nocturnal, a trapline has to be set up by Graeme Liddelow the night before. While he and Per take each animal from the trap the following morning, they show how to collect data about the woylies and how to tag them.

Another highlight of the weekend course is a visit to the melaleuca thickets, home of tammar wallabies. The tammar needs dense low scrub for daytime shelter and open grassy areas for feeding. It does not leave the scrub until after dark.

Students are also shown research techniques used to document the birds that frequent Perup. Birds are caught in

mist-nets. Researchers then record the species of each bird, take their measurements and band them. These techniques yield valuable information about bird movements after forest disturbances such as fire or, in other areas, logging.

On the morning of the final day Per Christensen gives a presentation about fire ecology and research being done on the effects of fire. As well as being able to predict the effects of prescribed fire on plants and animals, the information gleaned from the research has allowed CALM scientists to formulate fire management plans which benefit the species of the area. They have found, for instance, that hot autumn burns are needed to regenerate the melaleuca or heartleaf thickets needed by the tammar for cover, knowledge that has changed the fire management of the area.

The Perup course and the researchers who run it are doing something positive about conservation. The data collected by participants contributes to the long-term study of animals and plant populations of the area.

This spring a new course specialising in the flora of WA's southern forests was added to the University Extension program. It was an instant success and is destined to become an annual event. A

course specialising in birds is planned for the autumn program. CALM is also looking at other ways of extending the program.

Carolyn Thomson is a communications officer with CALM's Public Affairs Branch. She can be contacted on (09) 389 8644.



In the central Kimberley, a screw-pinesurrounded creek - just one of the threatened areas in this fragile frontier. Turn to page 22.

## LANDSCOPE

VOLUME SIX NO. 1 - SPRING EDITION 1990



Public awareness and involvement is vital in the conservation of WA's rare and endangered flora. Page 49.

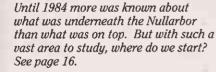


Ten WA mammal species have become extinct in the last 200 years. What can be done to ensure no more are lost forever? Page 28.



Forests protect our environment. They also provide timber. How do we strike a balance? Turn to page 35.

## ARANGE OF REEFS BARRY WILSON SCOUTING THE TREELESS PLAIN THE FRAGILE FRONTIER CAROLYN THOMSON, CHRIS DONE AND ALLEN GROSSE .. 22 THE DISAPPEARING MAMMALS FORESTS FOR THE FUTURE SYD SHEA AND ROGER UNDERWOOD .......35 VANDALS IN A VULNERABLE JACK KINNEAR, DENNIS KING AND KEITH MORRIS ...... 44 GROWING IN A WILD STATE IN PERSPECTIVE...... 4 BUSH TELEGRAPH ...... 6 ENDANGERED



## COVEA

Dolphins and whales are perhaps the best-known inhabitants of Western Australia's coastal waters. But this unique area is also home to an astonishing range of marine flora and fauna, from sea-turtles and coral reefs in the north to sea-grass banks and great white sharks in the south. See page 10.

Illustrated by Martin Thompson.



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