Burning from Experience

by Colleen Henry-Hall

Before European settlement of Australia, Aboriginals practised their own version of prescribed burning. They continually burnt small patches of their lands, creating a mosaic of different-aged vegetation. Fire was used for many reasons, including hunting, clearing dense bush to make travel easier, stimulating some food plants ('fire stick farming') and clearing around sacred sites or rockholes.

In the 1920s and '30s, Aboriginals left desert areas and pastoralists discouraged their patch burning. Soon after, there was a dramatic crash in the population of many medium-sized mammals such as the Rabbit-eared Bandicoot, Rufous Hare-wallaby and the Western Native Cat. Now, these species and others are extremely rare in W.A..

Late last year, the Conservation and Land Management Department (CALM) employed a Research and a Technical Officer to investigate traditional Aboriginal fire practices with the aim of maintaining and increasing favourable habitats for these rare species.

David Pearson and Dan Grace are attached to the Wildlife Research section and operate from the Kalgoorlie office. They talk to older Aboriginals and travel with them in the bush to learn how and why the Aboriginals used fire. But it's not as easy as it sounds. David said 'You can't just race into a community, take them out into the bush and say "Right, teach me about fire." Some information about fire is sacred or semi-sacred while other information is an integral part of everyday thought,' he said. Trust must be established between the CALM officers and the Aboriginal communities.

David said one of their hardest tasks is convincing Aboriginals that this government department is not out to take away hunting rights or land. Towards establishing that trust, Dan and David are learning the Western Desert language at Kalgoorlie Technical College. 'If you show a genuine interest in their culture, they will go out of their way to tell you about it.' On a recent outing, the Aboriginals encouraged Dan and David in using their language, teaching them new words and coaching them when they made mistakes.

Aboriginal cooperation is important in exploring the status of endangered species in the desert areas. Many of these animals need places to shelter, usually older spinifex hummocks on unburnt land, and places to feed such as recently burnt land. The large expanses of uniform-aged growth that follows a wildfire has contributed to the decline or disappearance of many desert mammals. Thus the development of a mosaic burning pattern will also aid possible reintroduction of rare species. David admits that this prospect is quite far in the future.

Traditional Aboriginal burning practices and today's methods will be used together in conducting trials on three reserves in the Goldfields Region. The study will be carried out on Queen Victoria Springs, Wanjarri and Gibson Desert nature reserves.

Treatment will differ in some aspects on each of these reserves, but the main problem, according to David, is learning how to control small burns with little or no recourse to suppression. Another aim of the project is to develop a predictive basis for burns and fire management.

Wildfires, which have replaced Aboriginal patch burning, now burn for months on end, destroying shelter and food resources for wildlife over vast areas. With over half of the total area of W.A. nature reserves in the Goldfields Region, it is vital to develop fire management strategies low in economic and staff costs. Consequently, aerial ignition trials using a CALM aircraft are planned for next winter in the Gibson Desert.

Ultimately, a CALM officer should be able to start a burn singlehandedly and, with weather information and David and Dan's results, predict how far that burn will travel before going out.

Landscope

Volume 2 No. 2
Summer Edition 1986/87

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Published by the Department of Conservation and Land Management, 50 Hayman Road, Como, WA, 6152.

Executive Editor: Sweton Stewart
Editor: Liana Christensen
Designer: Trish Ryder

All Maps by Department of Conservation and Land Management Mapping Section.

Offset plates by Photolitho-PM

Printed in Western Australia by the Department of Services, State Printing Division, ISSN 0815-4465.

COVER PHOTO
A tender moment between human and whale shows the care which was a feature of the highly successful Augusta whale rescue.
Photo courtesy of the Western Mail.

A Conflict of Interests

Why are there so many conflicts when it comes to our natural environment? There is conflict among industrial groups exploiting natural resources; environmentalists advocating preservation of wildlife; government agencies; and recreation groups.

In an ideal world we would have a total understanding about ecosystems and natural resources, and of the long term needs of the community. But this is not an ideal world, and much of the conflict stems from a lack of agreement about environmental impact and human needs.

Take whale strandings for instance. From the time whales beach, tissue damage occurs due to a rise in body temperature and the sheer weight of the mammal. We don't know how long they have to lie there and how hot they have to get before the chances of survival are next to nil. Strandings may be part of a natural culling process or accidents caused by human impact on the environment. And, what about the people who turn out in large numbers under often adverse conditions, and become so emotionally caught up in saving these creatures? What weight do we put on their need?

It is not an ideal world. We are a long way from knowing the answers to too many important questions.

There is a need for more investigation, better communication and a broader understanding of environmental processes and human needs.

This brings us to *Landscope* and its purpose. Its prime objective is to achieve an understanding about conservation of ecosystems and management of natural resources.

Landscope's aim is to provide expert information on the major conservation issues, latest developments, research in progress and general features of the State's wildlife, national and marine parks, nature reserves and forests.

It will give a balanced representation of viewpoints and will not shy from contentious issues.

Landscope will inform readers about the natural wonders of our environment, the management considerations involved and the lifestyle of its inhabitants. It will not provide all the answers, but it will present the facts and therefore a basis for sound argument.

Landscope is Western Australia's own conservation and wildlife magazine.

Wetlands

The theme for this year's World Environment Day has been 'Wetlands — Not just for the Birds'. In this issue of *Landscope* we feature the ecological importance of wetlands.