

# Finger printing comes of age

**FOR many years ecology has been the dominant force in conservation and the study of genetics was considered irrelevant.**

This was partly because of the immediate needs of protecting species and habitats. But in the long term, genetic principles are very important to conservation.

The aim in wild species conservation is to preserve the gene pool required for survival and continuing adaptation to change.

Management of endangered species gene

by  
Graham Hall

pool requires knowledge of the biology of the species and an understanding of genetic diversity within and between populations.

Recent advances in DNA technology allow many of these issues to be addressed. One of these techniques has become known as DNA fingerprinting.

The term was originally coined in 1985 by Dr Alex Jeffries of Leicester University to describe individual-specific DNA patterns in humans.

These patterns were inherited in a simple fashion and could be used to establish pedigrees.

Since 1985, there has been an explosion in the

use of the technique, particularly in medicine and forensic science.

Now DNA fingerprinting is being applied increasingly to conservation studies around the world.

In WA, Professor John Wetherall and David Groth of the School of Biomedical Science at Curtin University, jointly with CALM, are applying the technique to a variety of conservation projects.

These include paternity analysis of dolphins at Atlantis, population dynamics of rock-wallabies, breeding management of the western swamp tortoise and in the battle against the poaching of cockatoos.

Results of some of these projects were presented during a recent CALM research division seminar

- Application of DNA Fingerprinting to Conservation Studies in WA - which outlined the method of DNA fingerprinting within the broader context of conservation genetics.

With over 30 people from CALM, CSIRO, the Agricultural Protection Board (APB) and universities attending the seminar, interest in the uses of DNA fingerprinting as a conservation tool is obviously running high in Western Australia.

For example, the CSIRO is using it in its fairy wren project at Helena Valley, as is CALM in its research into the biological control of foxes.

Further information can be obtained from Graham Hall at Woodvale on (09) 4055161.

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