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DEPARTMENT OF
CONSERVATION AND
LAND MANAGEMENT

Western Wildlife



NEWSLETTER OF THE LAND FOR WILDLIFE SCHEME

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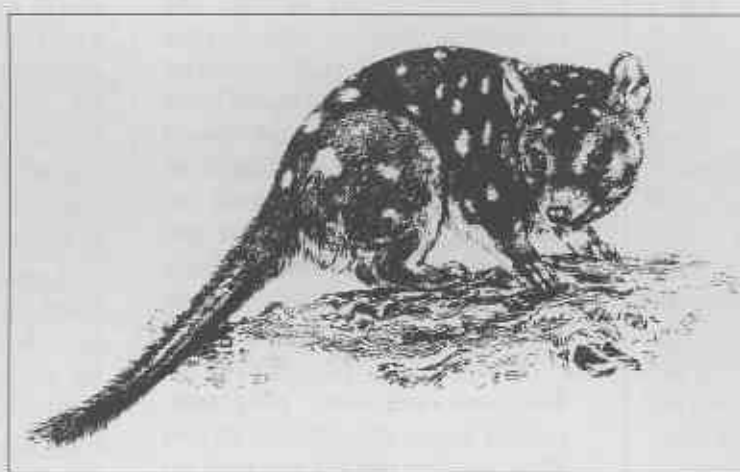
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9 AUG 1997
WESTERN AUSTRALIA

WESTERN SHIELD: WHAT IS IT AND WHAT IS IT DOING?

WESTERN SHIELD is the name given to CALM's coordinated program of feral predator control for wildlife recovery. Under this program some 5,000,000 to 6,000,000 hectares of our State (an area half as big as England or Tasmania) is being managed for native fauna recovery.

Foxes and cats have literally been eating our native fauna out of existence. This has been demonstrated beyond doubt by research conducted by CALM staff over the last 10 to 15 years. Basically, depending on the climatic area involved, foxes and/or cats have been able to eat most of the young small native mammals produced in areas as well as some of the adults.

I am reminded of a paper given at a conference in Victoria about 10 years ago, concerned with the decline towards extinction of the Victorian population of the Eastern Barred Bandicoot, a relative of our own threatened Western Barred Bandicoot. The last known population was centred on the small town of Hamilton. While interviewing residents to find out what they knew about the bandicoots one of the researchers came across a lady who regularly encountered the bandicoots on her property, mostly when one of her cats was playing



Chuditch

with one on the lawn. The lady was most surprised that anyone should be concerned about the future of the bandicoots and the impacts cats were having on the species, for as she remarked "there is nothing to worry about, the cats only bring home the baby bandicoots, they leave the adults alone". Clearly if all or nearly all of the young native animals are taken out of a population, that species population eventually crashes as the adults finally die out, with virtually no replacements from their young.

For years scientists failed to be able to prove the link between fox predation and the decline of small native animals. This was because they looked at stomach contents and faeces to find out what the foxes were eating. The diet was almost always composed of a mix of insects and other invertebrates, introduced species like rabbits and mice, and

the occasional native mammal. CALM's Dr Jack Kinnear and others felt that foxes must be having an impact on native animals and looked for another way to find out how severe this impact might be. The solution was to measure how many native animals were in an area with foxes present, remove the foxes and see what happened to the native animals. The results were astounding.

In the case of Black-flanked Rock Wallabies, in fox baited areas at Nangeen Hill rock wallaby sightings rose from around 25 in 1982 at the start of baiting to 110 in 1990. Over the same period at an unbaited location, rock wallaby sightings have hovered between 6 and 7 animals each year. The dietary approach failed to account for the fact that while foxes were not totally dependent on native mammals for food, they ate almost all of the young native mammals they encountered, thereby preventing these reaching maturity and replacing their parents.

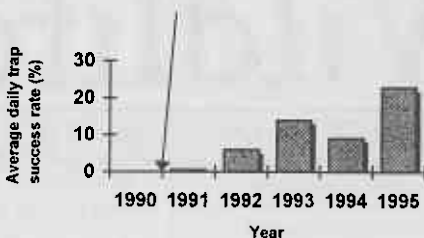
Similar population recovery results have now been achieved with a whole suite of species, including Numbats, Chuditch, Woylies and Quendas.

A precursor to Western Shield was the Operation Foxglove program. This program took the results from the work on fox control

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WOYLIE TRAP SUCCESS AT BATALLING FOREST

Baiting commenced



conducted by Jack Kinnear and others and applied it over broad areas of the northern Jarrah forest. In addition to fox baiting, the researchers involved took woylies from secure populations and reintroduced them into baited areas in the forest. The reintroduced woylies have thrived, leading to the removal of the species from the State threatened species list and national endangered species list, a first for native mammals as a result of management action.

Buoyed by the success of Foxglove and other programs, CALM's Executive Director Dr Syd Shea, decided that fox and feral cat control could be used more widely to recover a broad range of native species. Western Shield is this program. Along with broad scale fox baiting (predominantly laid from aircraft to reduce costs), Western

Shield incorporates research into an effective technique for feral cat baiting (cats are a major problem in drier areas of the State and do not take dried meat baits designed for foxes), monitoring of fauna recovery in baited areas and reintroductions of native fauna to their former range in baited areas. Within a few years, it's hoped that up to 30 native fauna species will be significantly more abundant and more widespread than they are today.

All mammals need food, access to mates for breeding and shelter from predators. Western Shield does not provide additional food for native mammals, but it provides a shield from feral predators and so greatly increases the shelter component of the animals' habitat. By reducing predation, Western Shield also increases the chances of animals finding a mate and breeding, and of the young produced surviving to maturity.

Land for Wildlife registrants and other private landowners can do a lot to help recover native mammals by protecting native vegetation, replanting native vegetation and local fox control measures. CALM has received numerous reports of landholders adjacent to reserves with fox control seeing bandicoots, woylies and other native animals on their properties.

CALM is considering ways to bring private properties into the baiting component of the Western Shield program, but has some logistical problems to overcome, including our ability to use aircraft to lay baits on smaller properties and the legal responsibility for any impacts such baits may have on domestic dogs. While these matters are being investigated, private landowners can certainly conduct their own fox baiting programs or cooperate with neighbours or LCDC groups in the laying of baits. Please contact your local Agriculture Western Australia office for more information on private property fox baiting.

The future prospects for feral predator control are looking good.

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We already have encouraging signs that an effective cat control bait may not be too far off being a reality. There is also the hope that within the next decade or so, biological control of foxes and cats will be possible. In the shorter term, technological advances may provide us with "pre-programmed baits". It may be possible to produce baits with a guaranteed period of toxicity, meaning that landholders could lay baits they know will be toxic for

only one or two days, or whatever period they desire. This would effectively cut baiting times by half as landholders would not have to recover uneaten baits in order to protect their dogs.

If you require any further information on "Western Shield", please contact CALM's Wildlife Branch (08 9334 0455). Further updates on the Western Shield program will be provided in later editions of Western Wildlife. There

are also Western Shield Newsletters that can be posted to you, if you are interested. For those with Internet access, information on Western Shield is available from CALM's Web site at:
<http://www.calm.wa.gov.au>.

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