An Operational Perspective

Steve Gorton
Department of Conservation and Land Management, PO Box 100, Narrogin, WA, 6312

INTRODUCTION

As a manager, I've witnessed a number of changes over the last 10 years in the management and research of remnant bushland.

Initially, I was involved solely with the management of Dryandra, a relatively large area of State forest, where the conservation values are obvious. Following the formation of the Department of Conservation and Land Management (CALM), my management role expanded to include many small reserves that, in my mind, had very little value. However, with time and the assistance of research scientists, I now view these areas as being critically important for the protection and conservation of different species and communities of the Wheatbelt.

In addressing the topic, I will list the main research projects that have occurred in the Narrogin District in the last 10 years, state examples of where research results have been incorporated into management, suggest how liaison between managers and researchers could be improved, and, finally, outline future directions for research in the Narrogin District.

RESEARCH PROJECTS

Narrogin District, which covers much of the central Wheatbelt, has been the focus for a variety of research projects. This diversity is illustrated by the following list of projects that have commenced in the last 10 years:

- fire ecology studies, including regeneration and fauna recolonisation, in Dryandra and Tutanning, by both CALM and tertiary institutions;
- flora and fauna studies — for example, Tony Friend's work on the biology of the numbat (*Myrmecobius fasciatus*);
- tertiary institution work, including whole community monitoring, such as Jonathan Majer's study of invertebrates in Dryandra;
- arboretum and tree establishment plantings, completed by departmental staff;
- fauna ecology and other studies by CSIRO in the Kellerberrin area;
- the establishment of the Tree Research Centre (now defunct), which primarily studied the regeneration of woodland communities;
- rare flora, species management, disease management and weed control research by CALM staff. This research in some instances was conducted by local staff;
- wetland monitoring — in particular, bore monitoring at Lake Toolibin;
- taxonomic reviews;
- continued tertiary monitoring and research;
- sandalwood research and development, including seed collection and trial plot establishment;
- research into tree establishment by CALM and the Department of Agriculture.

INCORPORATION OF RESEARCH INTO MANAGEMENT

Overall, the above projects have provided the Narrogin District with a broad research base for management. Specific examples of where research results have been incorporated into management are listed below:

- preparation of area management and recovery plans on the basis of research and operational work (for example, the Draft Dryandra Management Plan);
- amendment of fire regimes in the Dryandra Woodland in accordance with research recommendations;
- introduction of predator (fox) control on an operational basis;
- development of direct seeding techniques by the

Tree Research Centre, which have been tried with mixed results;

- successful translocation of numbats to Boyagin Nature Reserve. District staff assisted with this work;

- establishment of further sandalwood seed resources in Dryandra, following research and development by scientists and local staff.

MANAGER AND RESEARCH LIAISON

We at Narrogin have been fortunate that important research work has happened on our doorstep and the researchers involved have always made time available to spread their message. Consequently, our whole group, from district manager to maintenance worker, is exposed to the latest research results. Other research happening elsewhere is not as accessible, so we rely on relevant "readable" publications such as *Landscope*, *Managing Your Bushland* (1993), and rare flora publications, to provide us with up-to-date information.

I believe liaison with researchers is the regional ecologist's role. Hopefully, he or she can keep district personnel informed of relevant research and its application to management. This task could be achieved by providing district managers with periodic reviews of current practices. Recommendations in such reviews need to be clear and have measurable outcomes if they are to be incorporated into management.

To further improve liaison, researchers should brief district staff when a research program is to be implemented in their district. Some ownership and involvement by the district personnel are essential. I commend Tony Friend in this area for his past liaison work with the Narrogin District staff.

Finally, all recommendations generated by research have a cost. It is important that researchers address the cost of incorporating results into management programs.

FUTURE RESEARCH DIRECTION

As a manager, I now take the opportunity of listing areas that we in the Narrogin District believe researchers should investigate further.

Fire

Fire ecology, particularly with respect to woodland and heath regeneration, remains an important research task. The Narrogin Tree Research Centre was, I believe, breaking into that area of research when it closed.

Remnant Management

Minimum specifications for the successful management of communities and species within small reserves are required. Guidelines are also required so that managers may evaluate whether communities or species are in decline.

Corridors

Specifications for the development of corridors are required. For example, what is the minimum width of an effective corridor?

Plant Regeneration by Seed

Information on seed production and the natural storage of propagules from understorey species in Wheatbelt reserves is required.

CONCLUSION

My conclusions are:

- Some research projects have provided the Narrogin District with a sound scientific basis for management.

- The most successful research projects have included close liaison between researchers and managers, with operations staff assisting researchers and gaining first-hand understanding of the project and its implications for management.

- The regional ecologist has an important role to play in reviewing local operations and synthesising research results into management prescriptions.

- New research — for example, on corridors and regeneration — could assist my district to manage remnants more effectively and to regenerate the degraded areas better.

Our district looks forward to the continued good working relations with research personnel, and hopes the feeling is mutual.

REFERENCE

Hussey, B.J.M, and K.J. Wallace, 1993. *Managing Your Bushland*. Department of Conservation and Land Management, Perth.

REMNANT NATIVE VEGETATION
TEN YEARS ON

A DECADE OF RESEARCH
AND MANAGEMENT

PROCEEDINGS OF THE
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