

PLANNING/COMMUNICATION

CHRIS MULLER

Workshop Leader

Department of Conservation and Land Management,
Brain Street, Manjimup, W.A. 6258.

INTRODUCTION

The Workshop Leader stressed the importance of communication between managers, planners and researchers and the importance of regular feedback between these groups. For example, the results (including interim results) of research need to be communicated to the planner and manager if the value of research is to be realized. As the importance of this communication was generally accepted, and had become a major point of discussion in many of the previous workshop sessions, the Workshop Leader suggested that the topic could be rephrased for initial discussion in this session as:

"How can ecological theory assist in the planning for the management of the biological component ecosystems".

DISCUSSION

Ecological theory in planning. There is no "ecological theory", but many theories which together form a body of accepted principles. Examples relate to minimum viable population size, species competition, sociobiology, and population dynamics. The theories may be very broad, or extremely specific. As well as the many recognized ecological theories, others are espoused as such.

It was generally agreed that ecological theory could be valuable in many aspects of planning. For example, planners and managers must often make decisions in the absence of complete or reliable information. Factual data may not be available. Ecological theory can provide the most useful "best bet" basis for decision making.

Not all theories have stood the test of wide critical examination. Wide and popular promulgation is no guarantee of wide acceptance. Even widely accepted theories may be amended or discredited by new information. Considerable concern was expressed at the possible misapplication of

ecological theories. There are numerous examples of such misapplications which have led to disaster (e.g. population dynamics and fisheries). The less secure the foundations of the theory, or the less the theory is understood, the greater the risk of mistakes.

A theory may be widely accepted as sound, and yet its application may still prove difficult. For example, there are many differing views on the minimum size of reserves, all based on the same concept of maintaining viable populations. The differences arise not because of disagreements on the basic theory, but on the details as to what constitutes the minimum viable population.

While ecological theory is a legitimate basis for decision making, it was emphasized that planners and managers must exercise caution to ensure they are using the best current information.

Checklists. To educate planners and managers it was proposed that a checklist of recognized theories be prepared. This checklist should be widely circulated at least within the Department of Conservation and Land Management (CALM) to assist planners and managers in their detailed planning and decision making. Any such checklist should be subject to regular review to ensure it remains current.

Concern was expressed that a checklist for theory could do a great deal of harm if blindly applied and not understood or tested against common sense. (This is a presentable argument against publication). It was felt that, where ecological theory was used as the initial information, its predictions could be checked through a monitoring process.

It was suggested we also spell out our "articles of faith" - those things that we believe to be correct and basic to our management (which would include our general conservation objectives and various conservation strategies). These "articles

of faith" may overlap with recognized and accepted ecological theories, and could possibly be combined with them to form a single checklist. A. Hopkins and I. Abbott undertook to compile such a provisional list.

When such a checklist for planners is developed from a list of recognized theories it is important that it is checked against individual management plans (particularly those proven in practice) and other relevant documents to ensure that they are appropriate. If there appears any conflict, both the checklist and plans should be closely examined.

Communicating theories. Ecological theory is dynamic. Accepted theories may be discredited with new information; apparently conflicting theories may exist. Communication between scientists, planners, and managers on ecological theory is important to provide a critique of theories, maintain updated knowledge of the latest ideas, and minimize the risk of mistakes.

All professional staff must be encouraged to regularly update their knowledge. This can be difficult because of conflicting work pressures and the mass of information available - not all of which is relevant to each individual but the reading of which is time consuming. This applies particularly to planners and managers who need to remain competent in a broad range of disciplines.

A process of periodic upgrading of theoretical knowledge by management staff could be usefully carried out in a structured way such as sabbaticals for senior staff. In addition, it was agreed that as research scientists may be expected to have a greater depth of reading in their area of specialized knowledge they should ensure that key articles are brought to the attention of planners and managers. Within an organization such as CALM this can be readily done by internal circulation.

The dissemination of information outside an organization can be more difficult and time consuming, utilizing a number of avenues. For example, CSIRO disseminates information through such publications as "Ecos", annual reports, specific research program reports, scientific publications and by providing information for CALM technical publications; through talks to management groups; and through organizations of workshops such as this one. Despite these efforts a shortfall was recognized by the group. Greater use of "popular" publications such as "CALM News" as well as technical journals was suggested as a

means to more widely distribute information regarding CSIRO work.

As well as the above "formal" channels, much of the effective communication between organizations is on a personal basis between scientists in such organizations who in turn have a key role to disseminate relevant information to the planners and managers. Whilst seminars and various documents (e.g. management plans and scientific papers) were recognized as contributing to the distribution of information on the application of ecological theory, they frequently reach only a limited sector. Meetings such as research working groups are also an extremely valuable forum to exchange information but their very restricted membership at best limits the spread of information, and at worst may give a false impression of the overall level of knowledge. In the extreme situation, if the same limited group write and read papers and meet to discuss the issues, that select group may become very knowledgeable, and incorrectly assume much of this has become general knowledge. In addition to these avenues of communication there must be more communication between researchers, planners and managers. Three ways were suggested in which this could be done.

1. There should be more integration between management and research in both planning and implementing projects. This could have mutual benefits relating to the project itself (e.g. greater ownership of trial plots will lead to their better care by Districts; early involvement can reduce problem siting; resources and ideas can be pooled) and improve the communication between these group on wider topics (including the application of ecological theory).

2. Review seminars and workshops on particular subjects would increase the interaction between groups. There are many suitable themes (e.g. fire management in different ecosystems; insect population/management/host effects) for such discussions. Because each group directly involves relatively few people, a number of such seminars/workshops may be desirable to widely canvas and disseminate views.

3. Extend the scope of workshops to cover wider topics. A great value in the gathering together of a diverse group for a workshop, particularly if it is residential, is in the interchange of ideas, better communications and resultant greater understanding on wide ranging issues beyond the particular theme of the workshop.

More use should be made of this and many of the issues expanded on. It was strongly recommended that, in addition to "technical, theme-specific" workshops, that there be a biennial meeting of a working group comprising researchers, planners and managers (similar to the group for this workshop) to provide interaction on more general issues. Such issues could include directions for research; application of research find-

ings through management; the needs of the various groups; topical projects.

The possibility of deploying a liaison officer to facilitate the transfer of information between research and planners/managers, and assist in getting research findings into management practice was raised at an earlier workshop session. It was not expanded further in this session, but the importance of liaison by individual researchers was stressed.