

**SCIENCE & RESEARCH
INTERNAL REPORT NO.100**

**USE OF DOC SCIENCE & RESEARCH
PUBLICATIONS**

by

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THE USE OF DOC SCIENCE & RESEARCH PUBLICATIONS

by

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ABSTRACT

The report examines the nature and extent of staff use of the wide range of publications handled by the Science and Research Division's Publications Group. Specific recommendations are made for greater accessibility of the Division's publications, both within the Division and outside of it.

1. INTRODUCTION

Currently, the Science and Research Division's Publications Group has over 130 items on its publications list. In a typical month, the unit works on preparing near to 30 manuscripts for publication, with about one quarter of those being published the following month. There is considerable demand for those publications. From June to December 1990, about 1300 requests were answered by the unit. Given this level of activity, it is appropriate that some assessment of the service the unit provides to staff wanting publications is undertaken. Three key questions inform this study:

- is information on publications effectively disseminated to staff?
- are publications being used by staff?
- do staff consider that publications are relevant to their work needs for information, guidance and advice?

Overall, the Division wanted to know if improvements were needed in either the process of disseminating information about publications, or in the quality and relevance of publications.

This study focused on assessing the nature and extent of staff use of the wide range of publications produced by the Science Publications Group. This information will assist the Science and Research Division in providing the most appropriate and useful range of publications for staff requirements. It will also help in improving ways of disseminating information about the publications and identifying organisations interested in the publications. The study revealed not only information about staff use and demand, but also information on the distribution of Science and Research publications to external agencies and individuals. In 1990, 50% of requests for Science and Research publications came from individuals or organisations outside of the Department.

2. SCOPE OF THE STUDY

It has only been possible to do a brief, narrowly focused 'in-house' study because of time and resource constraints. Consequently, two sources of information have been covered:

Conservancy Advisory Scientists (CAS) who are responsible for the dissemination of Science and Research publications. The twelve CASs and Ken Hughey, science contact in Canterbury Conservancy, were asked about the following issues: how information about publications was circulated to staff, the extent of use of publications among staff with different work responsibilities, the types of scientific required by staff and feedback received on the publications. All the people contacted provided that information.

Science Publications Group records on requests for publications and feedback about publications.

Assessment of use of Science and Research publications from DOC libraries was also proposed, but after discussion with librarians it became clear that considerable time would have to be spent to obtain very little additional information. Library records on items loaned simply provide information on the frequency of loans. Use of a publication in the library cannot be assessed; nor can multiple use once a publication is out on loan.

This study does not directly address the use made of Science and Research publications by Head Office staff. In part, the absence of positions equivalent to CASs in Head Office made such an exercise difficult. The Science Policy Group does not appear to perform CAS functions with respect to the dissemination of research findings and scientific information.

Finally, the views of the users themselves are not canvassed in this study. To obtain their views would have meant not only contacting DOC staff throughout the country, but also external users of DOC publications. This would have been both a costly and lengthy process. A few views are obtained from users who have filled in the Science Publications Group's evaluation of report forms, but the primary understanding of users views has been obtained from CASs. While these individuals are ideally placed to obtain staff feedback about publications, their assessment of feedback must be considered with reference to their position as information distributors, rather than as end users.

3. DESCRIPTION AND INTERPRETATION OF FMDMGS

3.1. How do conservancy staff find out about the publications?

CASs use two main ways of informing staff about publications. These are:

Circulating publicity information to staff and sending individuals the publications they indicate that they would like to see:

'I photocopy publicity forms and send them to each functional unit and field centres and ask people to indicate publications want to see.'

'I circulate Science Fiction/Faction which lists Science and Research publications. This stimulates staff to enquire from me about publications they've not seen.'

Sending a publication to an individual because it is pertinent to his or her area of work:

'The reason for such targeting ... is that staff frequently complain about the volume of material and the slow turn around if volume is too great.'

In many conservancies both methods are used, especially where there is a librarian who circulates publicity material on publications. CASs in those conservancies without libraries, or with only a part-time librarian service noted that they have to take over some functions of the librarian. One CAS commented that his job would be made easier if DOC had a librarian in the conservancy as their collection of books is inadequately catalogued.

3.2. Circulation of information to field centre staff

Since the research was conducted, the Science Publications Group directly distributes information as new publications to field centres. However, at the time of the study, most CASs informed field centres about publications in much the same way as they did for conservancy office staff. Communication, was more likely to be by mail (including DOCnet where available), rather than face-to-face. In one case publications information was disseminated through the Operations Manager. In two conservancies lacking a full-time CAS, Canterbury and East Coast, different methods were used. Canterbury field centres received publications lists from the librarian, and in East Coast a staff member facilitated circulation of material.

CASs reported that field centre staff vary in their use of publications, with use depending on the relevance of the publications to the work of a particular field centre:

'It's limited to specific issues ... or publications in which the study is in the field centre area.'

'Reasonably good [use], especially management oriented publications.'

'Mt Bruce uses a lot of material, especially on birds.'

Six CASs judged the overall use of publications by field staff to be low. One considered that this reflects a failure of many publications to present material in an easily understood and applicable form. Others mentioned that the limited scope of Science and Research publications does not cover the matters on which staff require information.

The Science Publications Group manager considers that demand for publications from field centre staff has increased since the new distribution system was introduced.

3.3. Use of publications by functional area

Staff use of Science and Research publications must be understood in relation to the types of information provided. Figure 1 shows that the two most common areas of research concern birds (26% of publications) and archaeological/historical (20%). This reflects the composition of Science and Research staff and the allocation of research funding to external agencies. However, the heaviest use is not consistently reported in these areas.

Across all conservancies, staff most using publications are in the following functional areas:

- protected species and habitat management
- wild animal control
- plant pest control

In a few conservancies, staff working in the following areas also heavily use publications:

- coastal and marine
- freshwater ecosystems

Functional areas appearing to make little or no use of publications in many conservancies are:

- planning
- advocacy
- land administration
- draughting

Staff working in recreation, tourism and historic areas vary in their use of Science and Research publications. In some conservancies use is heavy, while in others, there is little use.



Fig. 1 Topic areas covered by Science and Research publications November 1990.

Often publications provide little information of immediate relevance to staff concerns. For example:

'The historic publications tend to be very specific. Science and Research staff are largely researching the nationally important topics (e.g. kakapo) whereas the bulk of local conservancy work is concerned with more common species.

'[one staff member] has shown interest, but there is not much of relevance for her area of work.'

3.4. Type of information requested

Staff frequently request a broad range of information, much of which cannot be obtained through Science and Research publications. Topics frequently requested include:

- protected species
- rare species
- animal and plant pest information
- planning
- freshwater issues
- coastal/marine issues
- management of captive species
- recreation/tourism
- social and demographic
- bio-engineering (for weed and pest control)
- survey guidelines for specific areas, e.g. marine reserves
- monitoring techniques
- identification guides for native biota, especially little known or ones difficult to identify
- archaeology in specific areas
- predator control guidelines
- interpretation
- operational guidelines
- geology/land forms
- ethnobiology
- ecological theory/philosophy

Often staff look for specific information to help them deal with a local management problem, e.g. identification of plant diseases or the appropriate herbicides to use on certain weeds.

Staff are most interested in the practical applications of scientific research, rather than information on a scientific study per se:

'Most requests for information are on practical methods of control, for new ideas on how to count DOC estate users, how to know which groups we should target for advocacy campaigns etc.'

'Applied management science is what staff want.'

3.5. Staff feedback on the publications

Some CASs reported little feedback of any sort from staff about publications. However, particular publications have received positive feedback, for example, transfer funded reports which are directly relevant to issues facing most conservancies, e.g. weeds, wild animal control.

Some criticisms are made. Three CASs note that staff in their conservancies are consistently negative toward Science and Research publications. For example, staff have commented that:

'Research merely proved the obvious ... recommendations ignore fiscal and political realities'

'[publications] were of little use and not digestible.'

Staff are mostly interested in management-oriented reports which address practical problems in accessible language. There seems to be widespread interest in and appreciation of material that is immediately relevant:

'The staff view is that Science and Research and outside research agencies are doing a good job. An increasing proportion of publications are seen as useful.'

'They are pleased if I can give them something useful and 'spot-on'.'

'There is for papers that address problems faced by managers in this conservancy. Lack of any response for the other papers.'

3.6. General comments from CASs about the publications

- Management advice is the most frequently sought after information in all conservancies. The need for information to assist with practical problems is reflected in the heavy use of recovery plans, ecological regions/districts publications and some of the Conservation Sciences Series. Staff frequently ask for information on databases and guidelines for survey or monitoring techniques. In contrast, staff tend to make much less use of scientific papers and reports which are not management-oriented.
- While the compilations of executive summaries are extremely useful as reference documents for the CASs, they appear to be little used by staff. One CAS suggested that 1-2 page information sheets would be a much more effective way of circulating report summaries to staff.
- Many conservancy staff do not know who is in Science and Research Division and what their areas of research are. Most CASs reported that they received 'frequent' or 'very frequent' requests for information on who to contact for specific expert advice.

- The pressure of workloads often prevents staff from doing as much back-ground reading as they would like, and perhaps need, to do. The role of CASs as disseminators of scientific information and research in an easily usable form is therefore crucial.
- The effort of the Science Publications Group in disseminating publications is appreciated.

3.7. Requests for Science and Research publications

The Science Publications Group commenced systematically recording requests for publications from June 1990. For the six months to December 1990, almost 1300 requests were filled. These exclude the routine mail-outs of new publications to Head Office and conservancy libraries. Over half of the publications requests come from two sources, university and other tertiary (27%) and DOC conservancy staff (26%). Head Office staff contribute 13% of requests, and the remainder are divided among a variety of groups and individuals (see Figure 2).

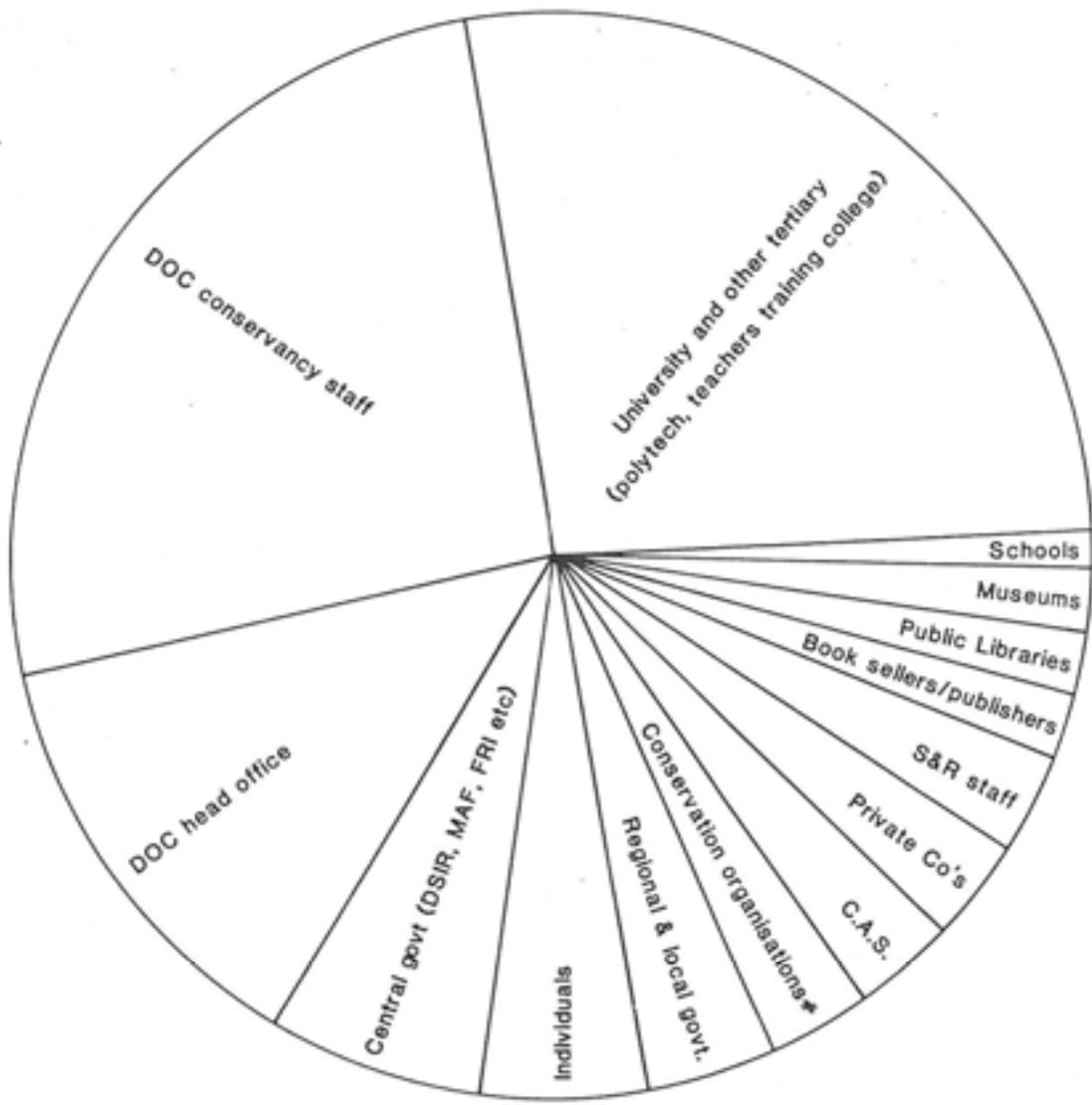
To a large extent the distribution of requests reflects the main channels used for disseminating information about publications. These are Science and Research Division's newsletter, and quarterly mail-outs to over 700 New Zealand addressees who have ordered publications in the past or asked to be put on the mailing list and, similarly, to around 200 overseas addresses, mainly universities. In addition, ECO newsletter prints publications lists and occasional reviews are published in magazines such as *Forest and Bird* and *Science Monthly*.

Fifty-five percent of requests come from external sources, and 45% from within the department, so the publications are certainly not only used by DOC staff. However, the large majority originate in New Zealand; only 7% of requests come from overseas.

The requests clearly indicate the extent of interest in Science and Research publications, but do not tell the whole story. Publications are also used by an unknown number of individuals who borrow them from libraries, friends or workmates.

3.8. Feedback from external sources

Since June 1990 the Science and Research publications unit has sent out an evaluation form with every publication request. Returns have been very small, only eight by January 1991; consequently their views cannot reflect all those who use the publications. Evaluation forms were received from regional government, private companies, DSIR and university staff. All said they would keep the publication for reference and/or circulate it to others. Both the presentation of material and style of writing were perceived positively. Most considered that the report they requested was very important in providing relevant information. Specific comments were that a particular report was 'timely' and DOC was providing a helpful service.



Internal DOC - 45%
 External - 55%

N.Z. - 93%
 Overseas - 7%

* (incl public conservation agencies overseas)

Fig. 2 Requests for Science and Research publications June - December 1990

Other written comments have been received in the last three years. Most are positive, but areas where improvements may be made in any report are also pointed out:

- typographical errors
- attention to style and expression
- more detail and analysis of data
- clear directions for further research

It should be noted that there have been improvements in the first two matters since the appointment of two part-time science editors in 1990.

4. CONCLUSIONS

All CASs emphasise that staff want research which clearly addresses management issues and provides practical information that can be used for, or adapted to their local problems and priorities.

Science and Research publications do not cover all the areas of staff work. In particular, staff appear to have significant information needs for survey and monitoring guidelines, and for specific information on topics such as coastal and marine, and recreation and tourism. Areas where Science and Research publications could provide more assistance to staff are listed in Section 3.4 above.

It appears that there are no major problems in distributing information. CASs use both a reactive approach in responding to staff requests and a proactive method of directing material to individual staff. Field centres do not appear to be substantially disadvantaged in receiving information, although some conservancies reported low use of publications by field staff. Certainly, the location of a CAS in the conservancy office increases the opportunity for office staff to gain knowledge of Science and Research publications.

CASs have a pivotal role as information disseminators. They are not just information distributors but are also often crucial in interpreting information so that conservancy staff are able to use Science and Research publications effectively. The scope of CAS advisory work is wide. They may be asked to provide basic information for a press release, advise on survey methods or help solve management problems. Consequently, they must be familiar with a range of subjects and rely on Science and Research publications as important references.

A great number of publications are requested from Science Publications Group. Yet there is very little systematic feedback which could be used to monitor the standard and relevance of publications.

5. RECOMMENDATIONS

Policy and operational implications stemming from research should be made explicit, as part of any executive summary, interim report or abstract of the research. Publicity material on a research project should highlight its implications for management.

Field centre staff should be targeted in the provision of appropriate and relevant Science and Research publications. Direct distribution of information to field centres from the Science Publications Group is an improvement. Further, Science and Research Division needs to consider how field staff may be made more aware of what information is available to help them, and how research can contribute to their everyday work.

Research and information requirements not currently met by science and Research publications should be acknowledged in the Science Research Agenda. Efforts should be made to address these knowledge gaps through providing adequate research resources.

The issue of monitoring the standard and relevance of publications needs to be discussed by those Science and Research staff primarily involved (representatives of the Science Publications Group, Science and Research managers, CASs, and scientists producing reports). If it is deemed necessary, a monitoring programme should be set up. This should be proactive, seeking feedback from selected users both within and outside of the department.

During the next CAS meeting this report should be discussed, paying attention to the issues identified and further considering the following questions:

- identification of problems in disseminating scientific information to conservancy staff
- comparison of different ways of disseminating information
- servicing the field centres
- alternative sources of information other than Science and Research publications, that can be provided for staff.

Effective ways of disseminating scientific information to Head Office policy staff need to be investigated. Who should do this - i.e. is there a role for the Science Policy Group in this respect? How should it be done?