## SCIENCE AND RESEARCH INTERNAL REPORT NO.52

# REGISTER OF PROPOSED INVESTIGATIONS IN CONSERVATION SCIENCE AND RESEARCH 1989/1990

## compiled by

Harry Keys and Keith Shannon

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#### **PREFACE**

This register of conservation science and research proposals has been released to make the information it contains more widely available and to acknowledge the thought and effort put in on research proposals by staff of the Department of Conservation, transfer funded and other agencies throughout New Zealand, 378 in all. The proposals helped to guide the allocation of resources to priority conservation requirements. The information was used in the Departments business planning.

I am very grateful to all those who have contributed to and supported the science planning process. This will help ensure that our science and research effort continues to be tailored to management needs.

Richard Sadlier Director, Science and Research Department of Conservation

## **DEPARTMENT OF CONSERVATION**

# REGISTER OF PROPOSED INVESTIGATIONS IN CONSERVATION SCIENCE AND RESEARCH 1989/90

Harry Keys and Keith Shannon Science and Research Division, Department of Conservation PO Box 10-420, Wellington

#### GUIDE TO THE PROPOSALS REGISTER

## Introduction

The register is a printout of a computerised database of conservation science and research proposals. The bulk of the proposals were received between October 1988 and February 1989 in response to a request from the Science and Research Division. They were entered in standardised to form the CONSCIENCE -proposals (89190) database on a Wang PC. Using advice from regions and regional advisory scientists (RAS), the proposals were given an interim national priority rating (high, medium, other -(see Priorities, p. iv) and then a final priority after further communications with RAS's and Central Office directorates. The final priority ratings were the main basis for negotiating work programmes with transferfunded agencies who carry out the bulk of the research for the Department. Departmental restructuring and other commitments have delayed the publication of this information until now.

This section describes how information is arranged in the register, explains the sorts of information included, and gives indexes to help find specific information in the Register.

The proposals are listed under Science <u>Programme</u> headings in the order of their <u>Proposal</u> Number.

## **Proposal Name**

This is the title of the proposal normally appearing exactly as supplied by the proposer. The Subject Index on page x lists page numbers where specific subjects can be found in the Register.

## **Proposal Number**

This is a unique identifier for each proposal and is composed of two parts: Example: 3085/251. The first 4 digits are the Programme/Subprogramme code from the Science Investigation Classification System (see page vi). In this example, 30 represents the ECOLOGICAL PROCESSES: BIOTIC RESOURCES and 85 the Sub Programme Biogeographic Survey. The digits following the "/"constitute an accession number that was assigned sequentially to proposals grouped by agency.

Proposals were given accession numbers by the Science and Research division according to originating agency and time of receipt. This number is used for data management purposes. Differing time of reciept meant that related proposals could not normally be listed in sequential order.

If a proposal becomes an approved investigation funded by this division (including transfer-funds) a prescript "S" is added before the first 4 digits which do not change. The last 3 digits do change as the new investigation is added to the CONSCIENCE - investigations database.

## **Agency**

This is the agency which made the proposal and to which the contact person normally (but not always) belongs (see page vii for further details including abbreviations used). Table 1 (p. xiv) summarises the quantity of proposals received from each agency. The Agency Index lists page numbers where proposals by specific agencies can be found in the Register.

## Agency Proposal No.

This is the number which the agency has assigned to the proposal.

#### **Contact Person**

This is usually the name of the leader of the proposed investigation (or sometimes the supervisor or director). Some entries list other people who may be involved with the proposal, or a contact person in another agency.

## **Study Venue**

This is the department's Regions and/or District where the work would be carried out. This normally relates to field work, although some entries list office and laboratory venues. Several proposals are national in scope or are carried out in all Regions. This is shown by reference to "All" or "All regions". The Venue index on p. xii lists page numbers where proposals pertaining to the original 8 Regions of the department appear.

The restructuring of the department into 14 new conservancies means the data on venue in the Register are now partly out of date. Insufficient information and time were available to update this data.

## **Priorities**

These are given as <u>high</u> for the highest ranked proposals, <u>medium</u> for medium ranked proposals and <u>other</u> for proposals which were considered of lower Departmental need, less urgent, less achievable or scientifically feasible, or for which there already existed a satisfactory level of knowledge.

## **Proposed Priority**

This was the priority which the proposer was asked to assign to the proposal.

## **Regional Priority**

This is the priority which the Region assigned to proposals made by them or by other agencies.

## **National Priority**

This is the priority which was assigned to proposals from a national perspective following the process outlined in the Introduction (see p. iii ).

The following criteria were used to do this:

- 1. <u>Conservation Output Areas.</u> Is the proposal relevant to conservation as expressed in the objectives of the corporate plan?
- 2. <u>Urgency.</u> How does the proposal relate to current management priorities, particularly as identified by Regions? Also involves questions of known threats to conservation, amount of previous work or existing information, and rarity of the subject.

- 3. <u>Achievability</u>. Can the proposal successfully achieve the required goals as determined by management in a suitable timetable? Are the objectives clearly identified and results able to be applied? Is the proposal scientifically feasible?
- 4. <u>Relationship to Science Plan</u>. How does the proposal relate to other components of the Science Plan, i.e. filling gaps, avoiding duplication, complementing current research, building on existing knowledge, innovating new ideas, taking account of existing literature?

A simple 3 level rating system was used for each criterion, giving a highest rank of 4 ( $4 \times 1$ ) and lowest of 12 ( $4 \times 3$ ), i.e. lowest score = highest rank.

Scores 4-6 are equivalent to "high priority", 7-9 to "medium", and 10-12 to "other":

Table 1 summarises the quantity of proposals in each priority.

## **Corporate Objective**

This number is based on the March 1989 version of the corporate plan. The first number applies to the corporate objective (e.g. 1 = Identification of Natural Resources, 3 = Endangered Species Survival) while the second is the key output number code (e.g. 1.1 = Protected areas legislation review).

#### **Comment**

This is designed primarily to be an action statement indicating what should happen to the proposal. It may also indicate particular aspects of the proposals which need attention.

The national priority and comment indicates which proposals should be implemented in conservation sciences and research programmes and which should be handled by alternative means. Proposers can identify whether their requirements are likely to be met given that proportion of proposals will be approved for funding. Proposals may be implemented over a period of several years according to priority and feasibility.

#### SCIENCE INVESTIGATION CLASSIFICATION SYSTEM

The listing below gives the categories under which proposed and approved investigations are classified. Programmes are shown in uppercase, e.g. INFORMATION, while Sub Programmes are shown in lower case, e.g. Advocacy, Publicity. The numbers on the left represent codes which nest together to give a 4-digit number, e.g. 1005 used in investigation numbering and management.

#### 10:INFORMATION

- 05 Advocacy, Publicity
- 10 Education, Training
- 15 Planning Systems
- 20 Information Systems
- 25 Databases, Archives, Collections
- 30 Science Advice
- 35 Science Liaison
- 40 Publications
- 45 Contract Management
- 50 Science Administration

#### 20 : PHYSICAL PROCESSES AND RESOURCES

- 10 Climate, Atmosphere
- 20 Hydrology, Glaciology
- 25 Water Management
- 26 Geothermal Systems
- 30 Oceanography, Limnology
- 35 Coastal Processes
- 40 Geology, Geomorphology
- 50 Soils, Pedology
- 55 Soils Conservation
- 60 Natural Hazard, Monitoring, Analysis

## 30: ECOLOGICAL PROCESSES; BIOTIC RESOURCES

- 05 Mountainlands
- 10 Tussocklands
- 15 Forests
- 20 Shrublands
- 25 Coastal Lands, Sand Dunes
- 30 Islands
- 35 Bogs, Swamps 9Freshwater)
- 40 Lakes, Rivers, Streams
- 45 Estuaries, Lagoons
- 50 Coastal, Marine
- 55 Extreme Environments, Special Ecosystems
- 56 Geothermal Systems
- 70 Agricultural Lands
- 75 Urban Lands
- 80 Ecological Monitoring
- 85 Biogeographic Survey (e.g. PNA survey, coastal inventory, natural resource assessments)
- 90 Biogeographic Inventory Method
- 95 Ecological Monitoring

#### 40: CONSERVATION OF NZ FLORA

- 10 Native Plants
- 20 Introduced Plants
- 30 Aquatic Native Plants
- 40 Threatened Plants
- 50 Structure, Genetics, Taxonomy
- 60 Plant Materials, Nurseries
- 70 Revegetation and Rehabilitation

## 50: CONSERVATION OF NZ FAUNA

- 05 Land Mammals
- 10 Marine Mammals
- 20 Land Birds (excluding gamebirds)
- 30 Seabirds
- 40 Reptiles, Amphibians
- 50 Fish, Freshwater (excluding introduced fish)
- 55 Fish, Marine
- 60 Invertebrates, Terrestrial
- 65 Invertebrates, Aquatic
- 80 Structure, Genetics, Taxonomy
- 90 Habitat Management
- 95 Ecological Monitoring

## 60: HARVESTED AND CONTROLLED PLANTS

- 10 Native Plants
- 20 Maori Plant Resources
- 30 Introduced Plants
- 40 Problem Plants (Weeds)

## 70: HARVESTED AND CONTROLLED

- 05 Introduced Mammals (excluding ungulates)
- 10 Ungulates
- 15 Domestic Animals
- 20 Gamebirds
- 30 Introduced Birds
- 40 Native Fish, Freshwater
- 50 Introduced Fish
- 60 Introduced Invertebrates
- 70 Maori Animal Resources
- 80 Population Models
- 85 Monitoring Systems

## 80: HUMAN ECOLOGY, SOCIAL SCIENCE

- 05 Archaeology
- 10 Historic Site Excavation, Survey, Inventory
- 15 Historic Site Management
- 20 Artefact Preservation
- 25 Stratigraphy
- 40 Landscape Ecology
- 45 Demography
- 50 Economics
- 55 Recreation, Tourism, Survey and Monitoring
- 80 Maori Cultural Values
- 85 Institutional Systems
- 90 Human Impacts

## 90: INTERNATIONAL SCIENCE

- 10 Pacific Conservation
- 20 Antarctic Conservation
- 30 Marine Resources Conservation
- 40 Environmental Monitoring
- 50 International Liaison.

## **LIST OF AGENCY ABBREVIATIONS**

Abbreviation Agency

CO Central Office

DOC Department of Conservation

## Directorate/Organisations within DOC

A&E Advocacy and Extension

CSI(BRC) Conservation Sciences Information group (formerly Biological

Resources Centre)

C&M Coastal and Marine
HPT Historic Places Trust
L&F Land and Fauna

PES Protected Ecosystems
RT Recreation and Tourism
HR Historic Resources
S&R Science and Research

## **Regions**

CAN Canterbury EAS Eastern

NEM Nelson-Marlborough

NOR Northern
SOU Southern
WAI Waikato
WAN Wanganui
WSE West Coast

## **Transfer Funding Agencies**

DSIR Department of Scientific and Industrial

Research

DSIR-BOT DSIR Botany Division
DSIR-ECOL DSIR Ecology Division
DSIR-LSS DSIR Land and Soil Science

\* DSIR-WS/HC Hydrology Centre

\* DSIR-WS/NZOI New Zealand Oceanographic Institute

\* DSIR-WS/WQC Water Quality Centre

\* DSIR-WS/TRL Taupo Research Laboratory

MAF Ministry of Agriculture and Fisheries MAFFISH MAF Freshwater Fisheries Research

MOF Ministry of Forestry

MOF-FRC MOF Forest Research Centre, MOF-FRC/FAE MOF-FRC Forest Animal Ecology

MOF-FRC/FGE MOF-FRC Forest and Grassland Ecology MOF-FRC/FLI MOF-FRC Forest Land Use Impact

MOF-FRC/FMP MOF-FRC Forest Management and Productivity
MOF-FRC/NW MOF Forest Research Institute, Northern Wildlands

<sup>\*</sup> These agencies were part of the Ministry of Works and Development, but were transferred to DSIR on 1 April 1988. Subsequent restructuring is affecting them. The abbreviations may change to reflect this.

## Other External Agencies

## <u>Abbreviation</u> <u>Agency</u>

Acclim. Soc. Acclimatisation Society

BCNZ Broadcasting Corporation of New Zealand BOPCC Bay of Plenty Catchment Commission

C. Bds Catchment Boards

CRM Centre for Resource Management

DSIR-CHEM DSIR -Chemistry Division
DSIR-ENT DSIR -Entomology Division

DSIR-INS
DSIR - Institute of Nuclear Science
Geol. Soc. NZ
Geological Society of New Zealand
LSCS
Lands and Soil Consultancy Services

MAF Tech North Ministry of Agriculture & Fisheries Tech North

Met ServiceMeteorological ServiceMet Soc.Meteorological Society

MFE Ministry for the Environment

MOE Ministry of Energy N. Mus National Museum

NZCCP New Zealand Climate Change Programme
NZFS Westland Former NZ Forest Service Westland
OSNZ Ornithological Society of New Zealand

PCE Parliamentary Commission for the Environment

Univ. Universities

AU Auckland University
CU University Canterbury
L. Coll. Lincoln College
MU Massey University
OU Otago University
WU Waikato University
VU Victoria University

A Graham and Associates

Ms P I Chester

D Butler Associates Ltd

## **General Abbreviations**

asap As Soon As Possible

cf Compare With (or See Also)

info Information
NA Not Applicable

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## MOF-Forest Research Institute

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## Universities

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SUMMARY OF PROPO	OSALS 1989/90
By agency and rating.	
Total Number of propos	als = 378.
Agency	
Regions: DOC - NOR - WAI - EAS - WAN - NEM - WES - CAN - SOU	26 27(1) 19 10 10 9 11
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OTHERS:

TOTAL

16 16

379

## National priority rating

	No.	26
High	151	39.9
Medium	113(4)	29.9
Other	97	25.7
Not ranked	17	4.5

(umbrella proposals, withdrawn etc)

## High Priority Subdivision

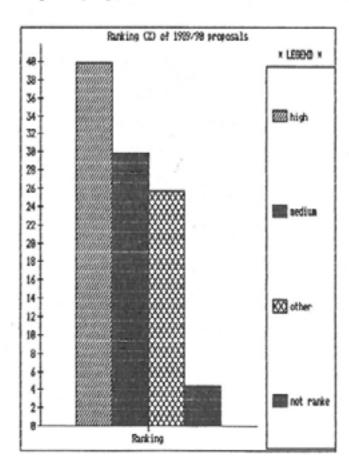
	No.	%
High (4)	30	19.9
High (5)	27	17.9
High (6)	80	52.9
Others	14	9.3

(including interim under umbrella not differentiated.)

Note:

(1) Contains several of last years proposals or current transfer funded investigations.
(2) Plant Physiology is not transfer funded
(3) Contains one or more joint proposals

(4)One proposal is ranked partially medium, partially high.



The Register of Proposed Investigations in Conservation Science & Research 1989-90 is not currently available in electronic form.

Please contact Knowledge Services at the Department of Conservation to request a copy.

knowledge.services@doc.govt.nz