

SCIENCE AND RESEARCH INTERNAL REPORT NO.62

**DEPARTMENT OF CONSERVATION
REGISTER OF CURRENT INVESTIGATIONS
IN SCIENCE AND RESEARCH
1989/90**

compiled by

Keith Shannon and Harry Keys

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PREFACE

This register contains a listing of science investigations managed by the Science and Research Division in the 1989/90 financial year. It includes investigations in conservation sciences and research which are being carried out by staff of this division, by transfer-funded agencies, under contract, and through scholarships.

This report is aimed at a general audience of conservation managers and others who have a need for information in conservation sciences. The investigations are ordered in numerical order under conservation headings and are described by their title. There is enough additional information to enable the reader to ascertain where the work is being done, by whom, and its state of completion.

The register is computer-based and is updated annually.

Richard Sadleir
Director, Science and Research
Department of Conservation

FURTHER INFORMATION

The investigations register is published only once a year. The investigation database on the other hand is continually being updated. Even if used regularly it may be in a format that is not specific or suitable for your task.

We may be able to help you to be more efficient by providing the information you require in the format you desire!

Many printouts already exist, for example:

Investigations and proposed investigations in Conservation Science and Research detailing current, and proposed work on the effects of 1080 poison on native birds.

Investigations involving Tussock grassland.

Investigations in Earth Sciences.

Investigations in Conservation Science detailing estimated completion times of current investigations.

Investigations being carried out in the West Coast Region.

The data in the database can also be harnessed to provide graphic presentations eg pie charts, bar charts, etc.

If you need some information that is in the database but may be too time consuming or difficult for you to extract:

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DEPARTMENT OF CONSERVATION
REGISTER OF INVESTIGATIONS IN CONSERVATION
SCIENCE AND RESEARCH 1989/90.

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GUIDE TO THE INVESTIGATION REGISTER

Introduction

This register is the printout of a computerised database of science investigations in conservation in progress, or completed during the financial year. The database uses software with customised programming, and runs on a Wang PC. It has been compiled from science investigation record sheets and other information (e.g. progress reports) received from science agencies involved. Updating the database is a continuing process and it is anticipated that it will develop and improve as further material becomes available. Future publications will contain more information about each investigation (e.g. Objectives and Keywords).

The complete register is published here. However, searches or printouts relating to specific details can be made if required (see p iii).

The term "investigation" is now used in planning and management of science by the Science and Research Division. This is to avoid confusion with the use of the term "project" which is used in financial management in DOC as in "budget projects".

This section describes how information is arranged in the register and explains the sorts of information included.

Investigation Name

This is the title of the investigation. (Titles submitted or requested should be sufficient to describe the project and not be condensed to the point where the nature of the investigation becomes unclear.)

Study Venue

This is the department's conservancies (Fig. 1) where the work is being carried out. This normally relates to field work, although some entries list office and laboratory venues. Several investigations are national in scope or are carried out in all regions. This is shown as "All" or "All regions". (The venue should be carefully described as it is used by the database for indexing purposes.) The publication has been adjusted to the fourteen conservation regions adopted on 1st July 1989 (see p. xii).

Programme and Sub Programme

These are the science programme and sub programme(s) under which the investigation is classified. For data management reasons investigations are classified under one programme and sub programme only, although several may relate to more than one programme or sub programme. Where this occurs the investigation is classified under the programme which covers the majority or most important aspects of the work. The complete classification system is presented on pages vii to ix of this report.

Investigation No.

Within this database the Investigation Number is a unique identifier for each investigation and is composed of three parts. Example: S3085/251. The letter indicates this is an approved science investigation, not a proposal. The 4 digits following are the Programme-Sub Programme code from the science classification system (p vii). In this example, 30 represents the Programme ECOLOGICAL PROCESSES; BIOTIC RESOURCES and 85 the Sub Programme Biogeographic Survey. The digits following the "/" constitute an accession number that was assigned in sequential order to investigations as they were approved.

The investigations are listed under Programme headings, in the order of their Investigation Number.

Corporate Objective(s)

The Corporate Objective numbers used in this publication, are those adopted by the department following the regional finance advisors conference in June 1989. The number appearing in this field is the main Corporate Objective supported by the investigation, followed by the Key Output. It is made up by a one digit number, (1 to 8) being the Corporate Objective, followed by a period, then a two digit number, (1 to 73) representing the Key Output topics.

Contact Person

This is the name of the leader (or sometimes the supervisor or agency director) of the investigation. Some entries list other people also involved. Future editions of the register may expand on these details.

Agency Investigation No.

This is the number that has been assigned to the investigation, by the agency involved.

Investigation Type

Several terms have been used to distinguish between different types of investigation. These are:

* contract

* scholarship

* grant

Status

This shows the status of the investigation based on the most recent information on hand. In some cases, due to inevitable time lags, this entry may not be the most up to date description. The entry for Status is usually the dominant category from the following list:

- * new investigation for investigations approved and/or starting this financial year.
- * current for investigations approved and commenced in previous financial years.
- * on hold for investigations that are in limbo, pending some decision on their future.
- * fieldwork completed when fieldwork is finished but not writing-up or publication
- * labwork completed lab and fieldwork are completed but not writing-up.
- * monitoring only major fieldwork is complete and monitoring only is required
- * manuscript(s) in process final report(s)/paper/etc is being written or refereed.
- * manuscript(s) in press manuscript etc has been accepted for publication.
- * completed all objectives met.
- * ceased investigation abandoned, cancelled or DOC's involvement has stopped for financial or other reasons.
- * [Blank]
or
* not stated default status when this is not clear in a few transfer funded investigations.

In some cases an investigation may have a combination of the above, e.g. fieldwork completed -monitoring only.

Once an investigation is ceased or completed it is removed from the current database and held on a separate file.

PROGRAMME AND SUB-PROGRAMME CLASSIFICATION SYSTEM

The listing below gives the categories under which approved investigations are classified. Programmes are shown in upper case, e.g. INFORMATION, while Sub Programmes are shown in lower case, e.g. Advocacy, Publicity. The numbers on left represent codes which nest together to give a 4-digit number, e.g. 1005 used in project 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 (Freshwater)
- 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

- 1 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
HO	Head Office
DOC	Department of Conservation

Division/Organisation within DOC

HPT	Historic Places Trust
S&R	Science and Research

Conservancies

BOP	Bay of Plenty
NOR	Northland
SOU	Southland

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

1. For the purposes of this register the DSIR-Water Science Division is made up of the four units shown here.
2. The general name adopted throughout the 89/90 register for the Units MOF carrying out Transfer Funded work is The Forest Research Institute. No differentiation is made between FLI and FMP in this register. Investigations by these two MOF Units support the "Agency Name" - MOF-FRI/FLI, FMP.
3. The Indigenous Forest Management Group (IFM) has become a part of the Forest and Wildlands Division. As from the 1st July 1989, IFM has been renamed The Northern Wildlands Research Field (NW).

Other External Agencies

Abbreviation	Agency
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 Service	Meteorological Service
Met Soc.	Meteorological Society
MFE	Ministry for the Environment
MOE	Ministry of Energy
N. Mus.	National Museum New Zealand
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	Canterbury University
L. Coll.	Lincoln College
MU	Massey University
OU	Otago University
WU	Waikato University
VU	Victoria University

General Abbreviations

asap	As Soon As Possible
cf	Compare With (or See Also)
info	Information
NA	Not Applicable

DEPARTMENT OF CONSERVATION BOUNDARIES



SUBJECT INDEX

This index lists the page numbers on which investigations relating to a particular subject can be found. The keywords chosen are mainly in the subject areas which have several investigations. These keywords were identified with the department's corporate objectives and conservation values in mind but do not supersede the main Programme headings and subprogrammes in the register. This index and the register headings are complementary and both can be used when searching for specific subjects.

Due to the open ended nature of this type of index, it proved impossible to include every subject or item on which some work is being done. However it is hoped that in conjunction with the ability to do computer searches on the database (see p iii) all conceivable subject variations can be handled adequately.

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