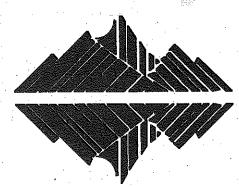
# Ecological S Newsletter

No. 66, June 1992

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# PROBLEMS WITH COLIN BURROWS'S VIEWS ON DOC'S THAR POLICY

I would like to respond to Colin Burrows's letter criticising the Department of Conservation's Policy on Himalayan Thar. I do so as the author of the review of options for thar management, one of which formed the basis for DOC's policy statement, and as an active researcher on thar and their habitat, i.e., not for Council. However, the letter from Council to the Minister of Conservation, published in this newsletter, was endorsed by all Councillors apart from Colin O'Donnell, who was overseas. Colin Burrows did not see the drafts for comment as they were not sent to any of the appointed office holders. The letter was sent to the Minister of Conservation on 2 October 1991.

The crucial point of decision for DOC was "could they eradicate thar?". In fact they could not, for all sorts of reasons. Colin recognises DOC's dilemma in his letter, but then attacks the only possible policy that will still enable the department to protect conservation values - keeping thar at low densities by ensuring a sustained harvest. In essence, he argues for unspecified lower densities, and for sustained harvests presumably by DOC, since he does not like the de facto status given to other harvesters. Colin seems to object that the policy does not emphasise the pest nature of thar, although the first 7 pages of the policy are largely about defining thar as pests. Colin's second objection is that the policy does not include more on thars' impacts on the flora and fauna. Leaving aside argument about whether a policy statement is the place for such detail, the policy is as vague about the impact of thar as is Colin's response - the fact is we do not know exactly how thar (at various densities up to the limit set in the policy) affect this or that

plant, animal, or community. That is no excuse for not acting or indulging in "displacement" research, it merely demands managers be prepared to modify their actions if undesirable consequences ensue. Colin's final objection is that the final part of the document "seems to be on maintenance of a thar herd (to suit recreational and safari hunters)..." This is not what the policy does. The emphasis on recreational and safari (and commercial) hunters is as their role as control agents, thar being one of the few species that can be held at low or modest densities over much of their range by such harvests. Imagine the joy of conservationists if possum numbers could be held at 20% of carrying capacity at little cost to DOC! If thar were to be managed to suit hunters the desirable density would be something like 30 000 thar, not up to 10 000. The only steps possible in the policy (although not actually advocated), that might be construed as treating thar as game rather than as pests, are to allow the hunters to manipulate sex ratios by killing more females and less young males while keeping to the threshold densities.

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# NEW ZEALAND ECOLOGICAL SOCIETY AWARDS 1992

As Awards Convenor for the Society, I am pleased to call for nominations and applications for:

## THE NEW ZEALAND ECOLOGICAL SOCIETY AWARD

This award is conferred annually to recognise excellence and outstanding achievement in the study and application of ecological science. The award consists of an inscribed certificate and the sum of \$150. In 1991 the award was presented to Dr. Colin Burrows, Department of Plant and Microbial Sciences, University of Canterbury.

The award will be made to <u>either</u> the person(s) who have published the best original research into the ecology of New Zealand and its dependencies (including the Ross Dependency) in the previous two calendar years <u>or</u> the person(s) who have made the most outstanding contribution to applied ecology, particularly conservation and management, in New Zealand and its dependencies over the same period. Recipients of the award may be asked to give a presentation on their work at the Society's next annual conference.

Candidates may <u>either</u> apply for consideration <u>or</u> be nominated by Society members. Applications should provide two referee's names, and nominations should include two brief statements of support. Reprints of relevant publications should be attached.

Applications and nominations should be fowarded no later than 31 July 1992.

#### STUDENT AWARD FOR BEST CONFERENCE PAPER

The Society makes an annual award to the student who is judged to have presented the best oral paper at the Society's annual conference. The award comprises one year's free membership of the Society, a book token for a sum equal to one year's full membership subscription, and a certificate.

All bona-fide students either currently enrolled for any course at a secondary or tertiary educational institute or within one year of graduation are eligible for travel grants. Membership of the Society is not a necessary condition.

All papers (including joint papers) presented solely by students shall be eligible for consideration. No formal statement of entry is required.

#### STUDENT TRAVEL GRANTS

Grants are awarded annually to encourage student participation at the Society's annual conference. Eligibility is the same as for the Student Paper Award.

Students may either apply for consideration or be nominated by teaching staff from eligible institutes. The

number of grants is limited, so priority is given to those presenting papers, those who have the furthest to travel, and those who have not previously received a travel grant. Grants usually range from \$40 - \$100, and are collected from the conference organiser during the conference.

Graham Hickling Awards Convenor New Zealand Ecological Society PO Box 25-178, Christchurch.

#### PRE-CONFERENCE WORKSHOP

Prior to the NZ Ecological Society Conference, a CAMP (Conservation Assessment and Management Plan) and PHVA (Population and Habitat Viability Analysis) workshop for New Zealand penguins is to be held in Christchurch from 18 to 21 August. This workshop is for invited participants and is to be facilitated by Dr Ulysses Seal of the captive breeding specialist group of the IUCN.

Dr Seal is able to stay over the weekend prior to the Ecological Society's conference (i.e., August 22 and 23), and it is proposed to run an additional one or two-day workshop and discussion on Population Viability Analysis principles, including running computer simulations.

It is suggested that the emphasis be on plants, and possibly invertebrates. PVA has been widely used for assessing survival prospects, recovery planning, and management of birds and mammals. It is intended to use the results of overseas exercises, such as Lespeddeza leptostachya, the prairie bush clover, and analysis of one or more New Zealand plant species as examples.

It is important to assess interest now so that planning of this additional workshop can proceed. Anyone interested in participating in the weekend workshop can contact either: Paul Garland, Orana Park, PO Box 5120, Papanui, Christchurch (Ph. 0-3-359 4330), or David Given, 101 Jeffreys Road, Christchurch 5 (Ph. 0-3-351 6069), preferably before the end of June. They need to know: numbers interested, preference for one or two days, which day, and your specific areas of interest.

# HAWKWEED PROCEEDINGS: PUBLICATION

Proceedings from the October 1991 Hawkweed Workshop will be published shortly. The proceedings will be produced as an Occasional Publication in a similar format to "Managing the New Zealand Natural Estate".

Prices are not yet finalised but the anticipated cost is around \$15 for members. Anyone wanting to recieve further details, please write to Caroline Mason, PO Box 25-178, Christchurch.

# NZ ECOLOGICAL SOCIETY CONFERENCE

#### **SUNDAY 23 AUGUST**

1.00 – 5.00 Student Conference
Presented by and for students only

#### **MONDAY 24 AUGUST**

9.00 – 11.00 Registration
Council Meeting

11.00 - 11.15 Welcome and Conference Introduction

#### **SESSION 1**

Theme: Environment and population ecology in New Zealand

11.15 – 11.35 Dave Keliy Honeydew production over 24 hours in Nothofagus solandri

11.35 – 12.00 Charles Eason, H. Fitzgerald, G. Wright, R. Pierce, R. Gooneratne The fate of sodium monofluoroacetate (1080) in water, invertebrates and mammals

12.00 - 1.00 Lunch

1.00-1.25 Angus McIntosh, Colin Townsend, Todd Crowl

The evolution of changes in the behaviour of Nesameletus mayflies in New Zealand streams caused by introduced brown trout

1.25 – 1.50 Euan Young
Protected breeding behaviour in shore birds
on the Chatham Islands - climate or predator
effect?

1.50 – 2.15 Clare Veltman

Why did most avian species translocated to
New Zealand fail to invade?

2.15 – 2.40 Mike Scarsbrook, Colin Townsend, Todd Crowl Disturbance and spatial refuges in stream communities

2.40 – 3.05 Wayne Fraser
Factors influencing the distribution of sika deer in the Ruatea Stream Catchment,
Kaimanawa Range

**SESSION 2** 

Theme: Recent progress in animal control in New Zealand

3.35 – 4.00 Jacqueline Beggs, Nigel Barlow, Henrik Moller Can the wasp parasitoid *Sphecophaga* vesparum reduce wasp populations? 4.00 – 4.25 Bruce Warburton
Bennett's wallaby control in South Canterbury: costs and potential benefits

4.25 – 4.50 Dave Morgan, Charles Eason Development of a pelleted poison bait for feral cat control

4.50 - 5.15 Simon Jolly
Viral vectoredimmunocontraception and the implications for New Zealand

5.45 - 6.45 Dinner

7.30 - 9.30 WINE AND CHEESE

Guest Speaker: John Flenley (Professor of Geography, Massey University) Vegetation history in the tropics

#### **TUESDAY 25 AUGUST**

SESSION 3

Theme: Ecology and implementation of the Resource Management Act

8.15 – 9.55 A Panel Discussion involving representatives from the Law Faculty (Canterbury University), Centre for Resource Management (Lincoln University), Canterbury Regional Council, Ministry for Environment, Department of Conservation, and Royal Forest & Bird Protection Society

9.55 - 10.25 Morning Tea

**SESSION 4** 

Theme: Why do we control those exotic organisms?

10.25 – 10.45 Chris Challies

Predation of white-flippered penguins in breeding colonies around Banks Peninsula

10.45 – 11.10 Richard Malony Riverbeds and weeds - how to keep them apart and keep the wildlife

11.10 – 11.35 Case Pekelharing

Possum browsing of core indicator species in the Catlins

11.35 – 12.00 Colin O'Donnell

The relationship between decline in kaka populations and the spread of possums in South Westland

12.00 - 1.00 Lunch

**SESSION 5** 

Theme: Learning for life

1.00 – 1.25 Barry Law Environmental Education 1.25 – 2.00 Colin Burrows, Recipient's address, 1991 Ecological Society Award

Life, the universe and everything: origin of the first hominid

#### 2.00 - 3.30 WORKSHOPS

- A. Management of coastal and marineecosystems: contemporary issues
- B. Ecological theory: applications in manage-
- C. Introduced animal and plant management: where to from here?
- D. Cultural issues (including harvesting, ethnobotany) and the environment
- E. Cultural harvesting
- F. Ecology and implementation of the Resource Management Act

	<b>D</b>
3.30 – 4.00	Afternoon Tea
4.00 – 5.00	Plenary Session - Reports from workshops
5.00 - 5.45	Posters
5.45 – 6.45	Dinner
7.30 - 9.30	SLIDE SHOW Led by Peter Wardle
_	ia 1992: A biogeographic compariso w Zealand

#### WEDNESDAY 26 AUGUST

SESSION 6

Theme: Vegetation communities and dynamics

8.30 - 8.55 David Scott

Vegetation: a mosaic of discrete communities, or a continuum?

8.55 - 9.20 Roger Bray

Freestanding woody species coexistence on newly laid gravels

9.20 – 9.45 Xiong Limin, Zhong Zhangcheng, Li

A preliminary study of the soil seed banks of different successional stages of subtropical evergreen broad-leaved forest, Sichuan, China

9.45 - 10.10 Jill Rapson

Sand dune communities of Chatham Island

Theme: New approaches to endangered species

10.40 - 11.05 Chris Ecroyd

Ecology and conservation of Dactylanthus taylorii

11.05 - 11.30 Ian Henderson

A population viability model for whio (blue duck)

11.30 - 11.55 Jenny Brown, Jim Young Monitoring of Hector's dolphin around Banks Peninsula

12.00 - 1.00 Lunch

SESSIONN 8

Theme: Vegetation and change: past, present and future

1.00 – 1.25 Janet Wilmshurst Effects of Polynesian and European settlement on the Lake Tutira Catchment, Hawke's Bay, North Island, New Zealand

1.25 - 1.50 Phil Knightbridge Host tree preferences and establishment sites of northern rata (Metrosideros robusta) in northern New Zealand forests

1.50 – 2.15 J.R. Crush, B.D. Campbell Effect of elevated atmospheric CO, levels on growth and symbiotic relationships in some adventive plant species

2.15 - 2.40 Neil Mitchell Solar radiation - the slopes have it

2.40 - 3.05 Chris Frampton

Chaos: the potential for ecological modelling

3.05 - 3.35Afternoon Tea

SESSION 9

Theme: Land care problems

3.35 – 4.00 Kevin O'Connor, Marta Treskonova, Peter Harris

Potential contributions of ecologic analyses to land evaluation in South island highlands

4.00 – 4.25 Colin Meurk, Kevin O'Connor, Jonet

The ecological basis of conservation management in an urban environment -Christchurch, New Zealand

4.30 - 6.00 ECOLOGICAL SOCIETY ANNUAL GENERAL MEETING

7.00 - 9.00 Annual Dinner

9.00 Barn Dance

#### THURSDAY 27 AUGUST

FIELD EXCURSIONS

 $8.30 - 5.30^{\circ}$ Current Ecological Management in the Waimakariri Basin and Arthur's Pass

8.30 - 5.30Banks Peninsula, Hinewai Reserve, Akaroa Harbour Cruise

9.00 - 1.00Conservation in Urban Christchurch

#### ANNUAL GENERAL MEETING

Notice is hereby given that the 40th Annual General Meeting of the New Zealand Ecological Society (Inc.) will be held at the Ngaio Marsh Conference Centre, on the University of Canterbury Campus, Ilam, Christchurch. The conference programme will confirm the final date and time, but the meeting will be on Wednesday, 26 August 1992. Further details may be obtained from conference organisers.

The agenda for this meeting is as follows:

- 1) Apologies
- Confirmation of minutes of the 39th Annual General Meeting
- 3) Matters arising from the minutes
- Recieve Balance Sheet and Statement of Accounts
- 5) Recieve Annual Report
- 6) Election of Council
- 7) General Business.

# ANNUAL REPORT FOR THE YEAR ENDING 31 MARCH 1992

#### Overview

The Society has succeeded in reducing some of its overheads by having a smaller Council whose role is to administer the Society, create general policy on ecological matters, and to coordinate responses to the various documents, bills, plans, and proposals on ecological matters. Among these responses Council has commented on several documents concerning pests and weeds (the proposal to introduce myxomatosis, the Department of Conservation's policy on Himalayan thar, Canterbury Regional Council's options to manage animal pests), and organised (via Caroline Mason) a highly successful workshop on the weed Hieracium. It becomes apparent that we repeat certain ecological principles every time we comment on the dos and don'ts of pest and weed management, and it is therefore one aim of Council to produce a short summary of these principles (in the style of the Society's paper on sustainability) to act as a preface to the ongoing saga of requests for comment on pest and weed control plans.

One of the problems Societies such as ours face is how to become more democratic and involve a wider range of the members in formulation of policies and submissions. One solution, at least for policy statements, is to include draft statements in the Newsletter. However, the response time and costs on general mailings usually precludes wide circulation of drafts of submissions on other organisation's documents. This year saw the formation of FOSTS (the Federation of Scientific and Technological Societies) to replace the old Member Bodies Committee of the Royal Society. Murray Potter was nominated by Ecological Society and elected as a FOSTS Councillor. Unlike its predecessors, FOSTS appears to be an active organisation, and Ecological Society intends to support it. FOSTS has organised workshops on MAF's sustainable agriculture draft policy, on how to deal with the media. The Royal Society held a workshop scientific publishing. Ecological Society sent representatives to all of these.

The organisation of the science of ecology is, like all science in New Zealand, in a state of temporary (we hope) disorganisation as three of the four main government employers of ecologists reorganise into the new Crown Research Institutes. The Society made a submission on the proposed structures, and among other recommendations, we advocated the place of ecology and ecologists in the sectoral (Forestry, Agriculture, etc.) as well as the functional CRIs.

The number of ecologists employed by government has declined over the last five years as a consequence of reduced overall science budgets, is likely to decline further before July 1992 as a consequence of the results of the contestable funding system, and may further decline as the Ministry of Research, Science and Technology reappraises its priorities within a static national science budget. The Ecological Society is in an invidious position; if we advocate more money for some area of ecology under threat, we imply less money for some other area. Our solution has been to advocate more money for ecology in general (and by implication less for other fields of science), and to facilitate action by any groups of ecologists to lobby on their own behalf - the Hieracium workshop, for example. In the meantime we can only express our sympathy to those scientists who have been casualties of the process.

John Parkes

#### Education

A package for secondary schools, produced jointly with the Nelson Teaching Resource Centre, was completed in 1991. This consists of a poster & booklet entitled "What is ecology?". Some of these have been sold directly through the Ecological Society, while the Teaching Resource Centre has also recently (1st term 1992) undertaken a promotion to schools. The project will be reviewed for the August AGM.

A project is underway, jointly with the NZ Natural Heritage Foundation, on the production of an educational poster focussing on the concept of "Ecological Sustainability". This is accompanied by a re-interpretation and annotation of the NZES statement on "Sustainability" for use in schools. The text highlights links with the ecological ideas introduced at various levels in schools and the distinction between "ecological sustainability" & related terms. The poster will be printed in colour on recycled paper. While it is intended for distribution to schools, there will also be some copies for sale.

Mary McIntyre

#### **FOSTS**

The Federation of Scientific and Technological Societies (FOSTS) is the successor to the Member Bodies committee of the Royal Society. It held its inaugural AGM in November, 1991, at which time the Ecological Society nominated, and the AGM elected, Murray Potter as the representative on FOSTS council of several biological member societies.

Major objectives of FOSTS are to provide an independent, informed and objective voice on scientific issues; promote all aspects of science and technology, both to the general public and to decision makers, to create a climate more favourable to science and technology, and to participate on behalf of the scientific community in policy formation and decision on matters affecting science and technology in New Zealand.

A major achievement of FOSTS in the past year has been the preparation of an inaugural science and technology policy document that will guide FOSTS Council in its actions. This document was formally presented to the Hon. Simon Upton in mid-March 1992. Two major goals of this document are to promote the development of a New Zealand culture that recognises the importance of science and technology in our lives, and to promote an increased commitment to research and development across all sectors in New Zealand. These are ambitious goals, but New Zealand has seldom seen a time when the value and importance of science and technology has been in greater need of being highlighted.

Murray Potter

#### Sustainability Working Group

This group was set up by Council as an ad hoc group to work on ecological issues relating to sustainable land and resource management. The group's origin stemmed from earlier work by members of the Society on ecological principles of resource management in relation to the Resource Management Bill. The Society made extensive comment on drafts and reviews of the Bill, stressing the necessity for the bottom line of resource management to be the maintenance of ecosystem processes. A four-page public statement on sustainability, summarising this earlier work, was developed through the first half of 1991 and widely distributed shortly before the final parliamentary debate and passage of the Resource Management Act. It is always difficult to assess the effects of such an exercise, but at least receipt of the statement was acknowledged by a number of parliamentarians and other recipients, some making substantive comment. The Society can be satisfied that at least it contributed to keeping the ecological aspects of sustainability in front of the lawmakers.

Subsequent activity of the Working Group focused on sustainable agriculture. The Group made submissions on behalf of the Society on two Ministry of Agriculture and Fisheries' policy papers: "Sustainable Agriculture: a Policy Proposal" (No. 106) and "Organic Agriculture" (No.111). Our submission on the first paper was included in a subsequent combined societies' submission co-ordinated by the Federation of Scientific and Technological Societies, who also organised a useful meeting of society representatives and MAF staff on 27 September 1991. In November 1991, several Society members were among the 200-plus participants at an international conference on sustainable land management held in Napier. Paul Blashke, Kath Dickinson and Judith Roper-Lindsay, on behalf of the Society, contributed a paper entitled "Defining Sustainability: is it worth it?" which was well received and will appear in the Conference Proceedings.

Paul Blashke

#### Marine and Coastal Working Group

This working group was established after the August 1991 AGM to address: coastal/marine species/habitat protection, and fisheries management issues. Fisheries matters covered included a submission to the Set Nets Task Force on set nets, and a substantial submission to the first round of the Fisheries Legislation Review. Action on this latter matter will be ongoing over the next year.

The subcommittee has also prepared submissions on a number of the major habitat protection issues including:

 Mayor Island formal marine reserve proposal and restricted fishing methods area

- · White Island Marine Protected Area Bill
- Fiordland Marine Reserve Discussion Document.

The Society did not make a submission on the formal marine reserve application for Fiordland because we were not notified of the lodging of the application. A letter was subsequently sent to the Minister of Conservation seeking protection for additional areas as recommended by the New Zealand Oceanographic Institute.

Vicky Froude

#### Legislation Working Group

This working group prepared a submission on the 1991 Supplementary Order Paper to the Resource Management Bill.

Following the restructuring of Council in August 1991 it was decided that the Legislation Working Group would be disbanded and its business picked up by the new Working Groups dealing with particular topics.

Vicky Froude

#### Journal

The 1991/92 year has been busy for the NZ Journal of Ecology, with several changes in the form of electronic processing. The first issue of the year was produced by one disk translation method, and the second by the method which will continue to be used. This has resulted in savings in processing costs of about \$4000. Papers are now requested in Wordperfect format, but transfers from some other software are possible.

Volume 15(1) had nine papers (including two from past symposia) and 107 pages, while 15(2) had eight papers and 76 pages. Both issues contained guest editorials and book reviews. The second issue also contained the Acknowledgements (a list of referees to provide some formal acknowledgement of the service they provide), the annual report, the Presidential address, and a contents page for book binders. An index was prepared for the first time, allowing access to the two issues of the one year. The guest editorials resulted in the airing of interesting opinions on two issues in New Zealand ecology.

Currently, there are 31 papers in the Journal's editorial processes. Rejection rate is not formally calculated, but appears to be about 20% this year. Rejection is mostly because papers are deemed to have inadequate scientific content. Some papers remain in the system for a considerable period while authors spend up to 2 - 3 years between rewrites; this causes some editorial problems. The Journal will

only thrive if it is supported by authors, and more submissions and more rapid revision of papers are desirable.

For the next issue, three papers have been accepted to date, will be included, and an initial paper for the new Forum section has been submitted. Negotiations are underway to find an editor for the Forum section.

Dr Gabor Lovei of MAF, Flock House, has been acting as the Book Reviews Editor. He reports that 16 books have been received for review, four reviews have been published to date, and five will appear in the next issue.

Jill Rapson

#### Newsletter

Four editions of the Newsletter were published during the year to the end of March 1992; in June, October, January and March. Kim Pritchard has ably and willingly undertaken the somewhat thankless task of Newsletter compiler and editor, using the computer facilities of DSIR Land Resources at Taita. Council takes this opportunity to thank her very much for the highly professional work she has done for the Society in recent years. We also wish her well as she prepares for forthcoming maternity leave. Council is also grateful to Duncan Cunningham, who has continued to be responsible for distribution of the Newsletter.

Since October 1991, Mary McEwen has had the role of coordinating the production of the Newsletter, and liaising with Council. An attempt has been made to enlist the support of regional representatives (Richard Serra in Auckland, Fran Kell in Palmerston North, Judith Roper-Lindsay in Christchurch, and Alison Balance in Dunedin) who will act as contact people (see Newsletter No. 65) and provide articles of regional interest.

With the forthcoming establishment of CRI's new arrangements are being made for future production of the Newsletter. Council wishes to thank the Director of DSIR Land Resources, Taita, for providing production and staff facilities in the past.

Mary McEwen

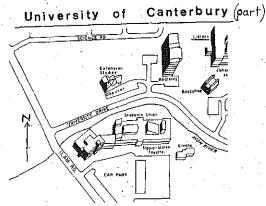
#### Membership Directory

The Membership Directory has continued to expand and now contains a profile on the expertise of 314 Society members. Most of the increase in the size of the database has come from the addition of details on new members. During the past year the directory has been used to compile lists of people who could help with issues in the following areas: forests, invertebrates, fish and fisheries, Antarctica,

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### **GENERAL INFORMATION**

The Conference is being held at the Ngaio Marsh Conference Centre which is part of the University of Canterbury Students' Association building complex, Ilam Road, Christchurch (see map below for the location).



<u>Accommodation</u>. Other than at hostels, accommodation must be arranged individually. Below is a list of nearby motels and the May 1992 tariffs.

Motels close to University of Canterbury

Academy Motel, 64 Creyke Road. Phone: 03-351-9347. FAX: 03-351-6027. From: \$73 incl. G.S.T. Christchurch Motel, 252 Riccarton Road. Phone: 03-348-9493. FAX: 03-348-2679. From: \$68 incl. G.S.T. Coachman Motel, 316a Riccarton Road. Phone: 03-348-6651. From: \$74 incl. G.S.T. Ilam Motel, 250 Riccarton Road. Phone: 348-5983. From: \$65 incl. G.S.T.

Meals. For those staying at the University hostels, the accommodation is on a bed and breakfast basis. Otherwise afternoon tea on Mon. 24, morning and afternoon teas and lunches on Tues. 25, Wed. 26 are included in the Conference Fee. Conference-goers must wear name tags at all times to receive these meals. Dinners are available from about \$12-00 (plus G.S.T.) upward in the Lower Common Room dining area. We have to obtain an estimate, each day, of the numbers needing evening meals at the Conference Centre. Those not enrolled for particular days at the Conference may obtain lunches in the Lower Common Room. Cafeterias with sandwiches, cakes, pies etc. are open 8.00 a.m.-3.00 p.m. in the Conference complex. The wine and cheese party will be held in the Shelley Common Room. The Conference dinner and dance will be held in the Ballroom area at the west end of the complex.

Bar. A bar will be open in the Lower Common Room 5.00-6.00 p.m. Mon. 24, Tues. 25, Wed. 26.

Travel to the University of Canterbury. An inexpensive shuttle bus service operates from the airport.

Parking. A large car park is present on the south side of the Ngalo Marsh Conference Centre.

Shops. A pharmacy, hairdresser and clothing store are present in the Students' Association building. Basic groceries etc. are available at shops south of the University on Ilam Road. A large shopping mall complex with a Cobb and Co restaurant and fast food outlets is about 500 m south-west of the University at the junction of Riccarton and Waimairi Roads.

<u>Bank, P.O., Bookshop.</u> A Westpac Bank and a postal service are present on the llam campus, along with the University Bookshop, just north of the Students' Association building.

<u>Institute of Agricultural Science Conference</u>. The I.A.S. (and associated organizations) is holding its conference at Lincoln University 40 km south-east of Christchurch at the same time as our conference. In case persons attending either conference wish to attend some sessions at the other, a reciprocal arrangement has been made for attendance free of charge <u>provided that name tags are worn</u>. If you are interested ask at the registration desk for a programme for the I.A.S. and a bus timetable for Lincoln. The bus route lies along Riccarton Road.

<u>Student Conference</u>. The student conference is arranged for students by students and will be held on the llam campus on Sun. 23 of August. If you are a student and wish to attend fill out the registration form and return it as indicated. Your registration will be given to the student organizers who will reply, with details of venue, programme, accommodation etc.

<u>Panel Discussion on Ecology and the Resource Management Act - Tues. Aug. 25.</u> Prepared questions are solicited for the panel. Send them to the Conference Organizer or give them to him on Mon. Aug. 24.

### REGISTRATION FORM, NEW ZEALAND ECOLOGICAL SOCIETY ANNUAL CONFERENCE, CHRISTCHURCH, 1992

	Workshops Tues. 25
Surname: Initials:	Indicate order of preference (about 30 people maximum
Name for name tag:	per workshop).  A [ ] Management of coastal/marine ecosystems.
Affiliation:	A Management of coastal/marine ecosystems.
Address:	B Ecological theory: application in management.
Phone - Home: Work: Fax:	C Introduced animal and plant management: where do we go next?
Conference Fee (Circle) (includes afternoon tea Mon. 24, morning & afternoon teas, buffet lunch Tues 25, Wed 26)	Ecology and the implementation of the Resource Management Act.
	E Cultural issues (including harvesting, ethnobotany) and environment.
Full Member \$65 (full conference) \$ \$23/day (limit 2 days) \$	Organizers of workshops please return a brief summary of the intended format to Conference Organizer by 30 June.
Non Members	Posters/Displays
Late Registration \$30 additional fee \$	I intend to bring a poster/display and will need boards (size 1 m high and 1.2 m wide)
Tertiary Student or unwaged \$33 (full conference)\$ \$12/day (limit 2 days)\$\$8 student conference only\$	Please return a title and (no more than) 200 word abstract on the content of your display to Conference Organizer by 30 June.
	Students
Subtotal \$	I intend to participate in the student conference.
Indicate days that you will be present at the Conference (tick box)	I wish to give a paper in the student conference.
Sun. 23 Mon. 24 Tues. 25	Please return a title and (no more than) 200 word abstract for your paper to Conference Organizer by 30 June.
student conference)	I need a billet for the nights of:
Wed. 26 Thurs. 27	Sun. 23 Mon. 24 Tues 25 Wed. 26 Thurs. 27
Hostel Accommodation at University Halls	(it may not be possible to provide all billet requirements)
\$38-25 a night for bed and breakfast, single room\$	A small travel subsidy (\$50-\$80) is available for students from distant locations. Apply to the Conference Organizer
\$38-25 a night, per person for bed and\$	in writing.
breakfast, double room Single Double	Speakers at the Conference
Mon. 24 Mon. 24	Please return a title and final version of the abstract (up to 200 words) for your paper to Conference Organizer by 30 June.
Tues. 25 Tues. 25	RETURN THIS FORM, WITH PAYMENT, by 17 July 1992 to:
Wed. 26 Wed. 26	N.Z. Ecological Society Conference 1992, c/o Department of Plant and Microbial Sciences,
Thurs. 27 Thurs. 27	University of Canterbury, Private Bag,
<u> </u>	Christchurch.
I am making other accommodation arrangements	Phone (03) 667-001; Fax (03) 642-083
Wine and Cheese/J. Flenley lecture, Mon. 24	Colin Burrows, Conference Organizer.
\$12-80 per head\$	MAKE CHEQUES PAYABLE TO N.Z. ECOLOGICAL SOCIETY CONFERENCE 1992.
Conference Dinner and Dance, Wed. 26	N.B. The Conference Registration Desk will be on the
\$31 per head\$	second level of the Students' Association Building, above the main foyer. Persons staying in Hostels
dinner \$26-50, band hire \$4-50)	should come there to obtain the location of their accommodation.
Field Trips, Thurs. 27	
(Costs include boxed lunch)  Upper Waimakariri Basin - Arthurs Pass	
(all day) (limit 53)	
\$25-20 per head\$ 2 Banks Peninsula including Akaroa Harbour	
Cruise, Hinewai Conservation Reserve	
\$22-00 per head (bus only \$ - harbour cruise separate - about \$20 adult \$10 child; less if party more than 20)	
(all day) (1imit 106)  Conservation problems in Christchurch and	
environs (half day) (limit 30) \$15 per head\$	

TOTAL

cont. from p7

and the coastal and marine environment. With the imminent changes to the structure of government science in New Zealand, there will be a need (over the next year) to ensure the information contained in the database remains correct.

Murray Potter

#### Conference 1991

Conference was held at Nelson College between 25 - 29 August. The conference had the title of "Ecology - what's going on out there", and 164 people attended to find out. The real work began on the Sunday when the students had their well-supported session. These sessions are becoming increasingly popular, and the Society must in future include their abstracts in the conference handout.

The main conference opened on the Monday with a highly successful powhiri with Jack Kohe and his supporters representing the Nelson tangata whenua. This welcome was followed by a session of three papers and a general discussion examining the issues and opportunities for traditional harvesting. This was the first time that such cultural issues have been discussed at an Ecological Society conference. Jim Elkington reminded us of Maori and Pakeha rights and obligations under the Treaty of Waitangi, but also made the point by analogy to the fate of the Patupaiarehe, that the natural world itself has rights that transcend humans.

The wine and cheese evening on Monday night saw the launching of Peter Wardle's book, The Vegetation of New Zealand. Tuesday morning began with the Presidential address by Judith Roper-Lindsay, and the remainder of the day and all of Wednesday were devoted to contributed papers. It has been several years since the conference had allocated such a high proportion of time to contributed papers. The 34 papers and 5 posters were grouped into themes covering subjects such as biogeography, ecology of birds, forest dynamics, and exotic organisms.

On Tuesday evening there was a slide talk on the wonders of NW Nelson, and on Thursday evening the annual dinner was followed by the customary revelry. Field trips on Friday were well attended and ventured as far afield as the Arthur Range, where Richard Sadleir arranged for a large flock of kea to be on hand to entertain the troops amid the snow.

Peter Williams

#### Awards

The New Zealand Ecological Society Award is eonferred annually to recognise excellence and outstanding achievement in the study and application of ecology in New Zealand. The 1991 recipient, Dr Colin Burrows, was presented with the award at the Nelson AGM for his diverse work on palaeoecology, historical climatology, alpine ecology, vegetation development, and seed studies, and for his work in promoting conservation in New Zealand.

The award for the best student paper at the 1991/92 conference was presented to Mel van Aalst for her paper entitles "What makes privet a successful weed?" Travel awards to attend the conference were granted to 17 students.

Graham Hickling

### TREASURER'S REPORT: ANNUAL REPORT, NZ ECOLOGICAL SOCIETY, 1991-92

Following Dave Kelly's example from last year, this report begins with a very brief outline of which account is what. The annual accounts are divided into three sections. The first, RECEIPTS AND PAYMENTS, records the cash flows that occurred during the financial year, regardless of whether they related to activities undertaken during 1991/92 or in other years. The second, INCOME AND EXPENDI-TURE (including subsidiary accounts), shows income and expenditure for the 1991/92 year only, and includes debts yet to be paid, or, for example, membership income yet to be received. The third section, the BALANCE SHEET, lists the Society's assets and liabilities. To make them slightly more intelligible the income and expenditure accounts are also summarised graphically, with major items shown as percentages of the respective totals.

Financially, the 1991/92 year went very much as planned - we are obviously getting the hang of budgeting accurately. On the income side, both membership and institutional subscriptions to the journal were slightly down on expectations, a consequence no doubt of the hard economic times. However shortfall in income was balanced by higher than expected income from sales of the "Natural Estate" book and back issues, higher interest income, and a good profit from the Nelson conference. On the Expenditure side, journal and newsletter costs were close to budget, and most other costs were within \$500 of the amount budgeted, except for council expenses which were well below expectations as a result of most councillors being located in one city (Christchurch). One major expenditure item was not included in last year's budget (Royal Society affiliation fees) but fortunately that was more than balanced out by the income from Hawkweed workshop - although some of the latter will be needed to produce a proceedings document for the workshop, we still managed a reasonable profit overall (\$2880). It was pleasing to reverse the recent trend of a steady decline in the Society's funds, the reversal being mainly the result of a marvellous conference profit for the second year in a row.

Looking ahead to the 1992/93 year, there are no major new projects looming, or any large increases in existing costs expected, so the expenditure for the present year is similar to that for last year. Usual sources of income will also be similar to last year, but interest income is likely to be down slightly. Overall, we have budgeted for a small loss (see the proposed budget below), but hopefully the expected income is slightly conservative, and expected expenditure slightly overstated. There is also the prospect that the 1992 conference will produce a profit, and the Hawkweed workshop proceedings

may also generate some income.

Last year the marginal cost of the journal per full or joint membership subscription was \$42.00, while the newsletter cost about \$7.00 per subscription (including unwaged and newsletter-only membership categories). Both full and unwaged members therefore receive the journal and newletter at a slight discount. Compared to other journals, our subs are very low.

Perhaps the other main item of interest financially is that it has now been classed as a scientific body by the IRD, and is therefore exempt income

Finally, thanks to Dave Kelly for his help in introducing me to the bookkeeping system, and Noel Langdon for his patience and guidance during the auditing process.

Graham Nugent

#### PROPOSED BUDGET FOR 1992-93 INCOME

Membership	\$17,200.00
Journal subs	\$8,000.00
GST nett	\$500.00
Interest	\$2,000.00
Back publications	\$1,500.00
Page charges/reprints	\$1,500.00
Other	\$250.00
Sub total	\$30,950.00

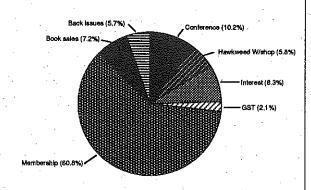
	. • • • • • •			
	Sub total		- 3	\$30,950.00
Nett loss				\$975.00
	TOTAL	•		\$31,925.00

#### **EXPENDITURE**

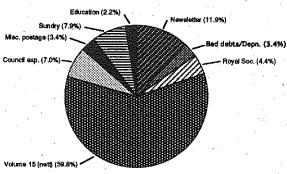
Journalx2 incl post	\$21,000.00
Newsletterx4 incl post	\$3,700.00
Education	\$1,600.00
Royal Soc Fee	\$1,125.00
Council expenses	\$2,100.00
Misc postage	\$600.00
Sundry other	\$1,000.00
Hawkweed proceedings	\$800.00

\$31,925.00

#### **INCOME**



#### **EXPENDITURE**



### NEW ZEALAND ECOLOGICAL SOCIETY: Annual accounts 1.4.91 to 31.3.92

## 1. RECEIPTS AND PAYMENTS ACCOUNT

RECEIPTS			PAYMENTS	· ·	
Subs in arrears	\$1,264.00		Journal production	\$31,500.05	
current	\$11,927.01		Journal postage	\$2,184.41	
advance	\$6,658.00				
· · · · · · · · · · · · · · · · · · ·	·			\$33,684.46	\$33,684.46
	\$19,849.01	\$19,849.01	et en		
			Newsletter		\$3,202.82
Journal in arrears	\$1,069.53	,	Misc postage		\$865.40
current	\$4,538.58		Council expenses		\$2,069.14
advance	\$1,735.14		Sundries	•	\$1,500.09
	<del></del>		Royal Soc Affiliation		\$1,125.00
	\$7,343.25	\$7,343,25	Sustainability statment		\$474.75
	· <del>· · · · · · · · · · · · · · · · · · </del>	1,00	Education		\$800.00
Reprints/back issues etc		\$3,146.71	Conference 1992 float		\$1,000.00
GST refund		\$1,926.58			
Interest Westpac	\$195.82		Balances at 31 March 1992	2	
BNZ	\$1,833.93	•	Westpac	\$9,685.83	
			BNZ	\$22,112.19	
	\$2,029.75	\$2,029,75	•	\$31,798.02	\$31,798.02
Education	42,020,00	\$234,70		***************************************	
Conference 1991					\$76,519.68 
		\$3,899.33			
Natural estate book		\$2,113,56 \$1,647,04			4
Hawkweed workshop 1991		\$1,647.91		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Balances at 1 April 1991	<b>#4.050.00</b>	-			y -
Westpac	\$4,650.62				
BNZ	\$29,678.26	2000			
	\$34,328.88	\$34,328.88			
		\$76,519.68			
<i>t</i>				*	
2. INCOME AND EXPEND	ITURE ACCOUN	TS			-
	A STATE OF	•			
EXPENDITURE	1992	(1991)	INCOME	1992	(1991)
EXECUTIONS.	1982	(1991)	HIOOME	1004	(1001)
Net cost of volume 15	\$15,200.28	\$16,595,29	Membership	\$17,201.01	\$12,869.95
the second secon		· · · · · ·			
Net cost of volume 15 Newsletters 61-64	\$15,200.28	\$16,595,29 \$3,952.59	Membership	\$17,201.01	\$12,869.95 . \$3,257.19
Net cost of volume 15	\$15,200.28 \$3,028.32 \$565.30	\$16,595.29 \$3,952.59 \$4,700.36	Membership Interest	\$17,201.01 \$2,341.09 \$588.65	\$12,869.95 \$3,257.19 \$884.94
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00	\$16,595.29 \$3,952.59 \$4,700.36 \$0.00	Membership Interest Net GST Natural estate sales	\$17,201.01 \$2,341.09	\$12,869.95 \$3,257.19 \$884.94 \$.00
Net cost of volume 15 Newsletters 61-64 Education (net)	\$15,200.28 \$3,028.32 \$565.30	\$16,595.29 \$3,952.59 \$4,700.36	Membership Interest Net GST	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40	\$16,595,29 \$3,952,59 \$4,700,36 \$0.00 \$3,373,92	Membership Interest Net GST Natural estate sales Back issues, sundry Conference profit	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses Miscellaneous postage Membership leaflet	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40 \$0.00	\$16,595.29 \$3,952.59 \$4,700.36 \$0.00 \$3,373.92 \$263.80 \$427.88	Membership Interest Net GST Natural estate sales Back issues, sundry	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses Miscellaneous postage Membership leaflet Sundries	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40 \$0.00 \$1,515.09	\$16,595.29 \$3,952.59 \$4,700.36 \$0.00 \$3,373.92 \$263.80 \$427.88 \$517.45	Membership Interest Net GST Natural estate sales Back issues, sundry Conference profit Hawkweed workshop (net)	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33 \$1,647.91	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30 \$.00
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses Miscellaneous postage Membership leaflet	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40 \$0.00	\$16,595.29 \$3,952.59 \$4,700.36 \$0.00 \$3,373.92 \$263.80 \$427.88	Membership Interest Net GST Natural estate sales Back issues, sundry Conference profit	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses Miscellaneous postage Membership leaflet Sundries Depreciation: file cabinet	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40 \$0.00 \$1,515.09 \$26.17 \$306.05	\$16,595,29 \$3,952,59 \$4,700,36 \$0,00 \$3,373,92 \$263,80 \$427,88 \$517,45 \$29,08 \$408,07	Membership Interest Net GST Natural estate sales Back issues, sundry Conference profit Hawkweed workshop (net)	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33 \$1,647.91	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30 \$.00
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses Miscellaneous postage Membership leaflet Sundries Depreciation: file cabinet computer	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40 \$0.00 \$1,515.09 \$26.17 \$306.05 \$474.75	\$16,595,29 \$3,952,59 \$4,700,36 \$0,00 \$3,373,92 \$263,80 \$427,88 \$517,45 \$29,08 \$408,07 \$0,00	Membership Interest Net GST Natural estate sales Back issues, sundry Conference profit Hawkweed workshop (net)	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33 \$1,647.91	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30 \$.00
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses Miscellaneous postage Membership leaflet Sundries Depreciation: file cabinet computer Sustainability statement	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40 \$0.00 \$1,515.09 \$26.17 \$306.05	\$16,595.29 \$3,952.59 \$4,700.36 \$0.00 \$3,373.92 \$263.80 \$427.88 \$517.45 \$29.08 \$408.07 \$0.00 \$8.50	Membership Interest Net GST Natural estate sales Back issues, sundry Conference profit Hawkweed workshop (net)	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33 \$1,647.91	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30 \$.00
Net cost of volume 15 Newsletters 61-64 Education (net) Royal Society Council expenses Miscellaneous postage Membership leaflet Sundries Depreciation: file cabinet computer Sustainability statement Bank fees	\$15,200.28 \$3,028.32 \$565.30 \$1,125.00 \$1,787.14 \$865.40 \$0.00 \$1,515.09 \$26.17 \$306.05 \$474.75 \$0.00	\$16,595,29 \$3,952,59 \$4,700,36 \$0,00 \$3,373,92 \$263,80 \$427,88 \$517,45 \$29,08 \$408,07 \$0,00	Membership Interest Net GST Natural estate sales Back issues, sundry Conference profit Hawkweed workshop (net)	\$17,201.01 \$2,341.09 \$588.65 \$2,027.56 \$1,599.16 \$2,899.33 \$1,647.91	\$12,869.95 \$3,257.19 \$884.94 \$.00 \$1,503.20 \$3,624.30 \$.00

#### SUBSIDIARY ACCOUNTS

2.1 CONFERENCE 1991	(NELSON) RECI	EIPTS AND PAYME		
RECEIPTS	44 000 00		PAYMENTS	<b>*</b> * * * * * * * * * * * * * * * * * *
NZ Ecol Soc float	\$1,000.00		Repay float	\$1,000.00
Registration fees	\$21,918.60		Printing/stationery	\$1,200.99
Book Launch	\$345.00		Field trips	\$516.89
Interest	\$36.89		Student travel	\$1,360.00
Cheque duty	\$1.05		Catering	\$1,592.95
		1.0	Accomodation/venue	\$12,216.00
			Refunds	\$1,161.00
			Miscellaneous	\$1,354.00
	9.00		Profit	\$2,899.33
	\$23,301.54			\$23,301.16
2.2 JOURNAL ACCOUNT	: VOLUMES 15(	1), 15(2)	•	
RECEIPTS			PAYMENTS	•
Reprints	\$1,348.96		Printing 2 issues	\$22,244.67
Subscribers	\$8,792.99	and the second	Postage	\$1,729.41
Members contribution	\$15,200.28		Bad debts	\$1,368.15
	\$25,342.23			\$25,342.23
2.3 HAWKWEED SYMPO	SILIM			
RECEIPTS	, Ç. Ç		PAYMENTS	
Registrations	\$3,960.00	•	Catering	\$1,153.60
Cash sales	\$72.45		Accomodation	\$1,020.00
Interest	\$36.16	•	Registration refunds	\$245.60
	4.07.0		Cheque duty	\$1.50
	\$4,068.61		Profit	\$1,647.91
				\$4,068.61
				÷ 1,000,0
3.BALANCE SHEET AT 3	31 MARCH 1992		and the second second	
LIABILITIES			ASSETS '	
Membership in advance	\$6,658.00		Members in arrears	\$1,063.00
Journal in advance	\$1,735.14		Journals in arrears	\$1,680.00
Sundry creditors	\$1,037.42		Balance of bank accounts	
General fund	<b>\$28,114.77</b>		Westpac	\$9,685.83
			BNZ call	\$22,112.19
	\$37,545.33		Filing cabinet	\$235.57
		*	Computer & printer	\$918.14
	Α,		Stock of journals	\$150.00
•			Sundry debtors	\$1,700.60
		•		\$37,545.33
			•	

#### STATEMENT OF ACCOUNTING POLICIES

#### General policy

These accounts have been prepared according to the NZ Society of Accountants general accounting principles appropriate for the measurement and reporting of earnings on a historical basis.

#### **Particular Policies**

(a) Stock of journals has been valued at an estimated realizable value (b) Membership in arrears and Journal subscriptions in arrears have been

included at the amount it is thought will be collected.

- (c) Depreciation: the filing cabinet was depreciated at 10% and the computer and printer at 25% of their respective 31 March 1991 values.
  - (d) These accounts are for a one-year period ending 31 March 1992.

#### **Audit Report**

I have examined the books and records of the New Zealand Ecological Society and have received satisfactory explanations wherever required.

In common with other organisations of a similar nature, control over the income for the year ended 31 March 1992 prior to its being recorded is limited, and there are not practical audit procedures to determine the effect of this limited control.

The organistation has not provided a statement of cashflows. This is a departure from Statement of Standard Accounting Practice No. 10, issued by the New Zealand Society of Accountants.

Subject to the possible effect of the limited control over income referred to previously and except for the omission of a statement of cashflows, in my opinion the attached accounts show a true and fair view of the financial position of the New Zealand Ecological Society as at 31 March 1992 and of the results for the year ended on that date.

### FOREST HERITAGE FUND -HELPING TO PROTECT INDIGENOUS FOREST ON PRIVATE LAND

In its first 18 months of operation the Forest Heritage Fund has protected more than 29,000 hectares of indigenous forest, from stands of kauri in Northland to coastal remnants in Wellington, and podocarp forest on the Hokonui Hills in Southland.

While logging on Crown land has stopped, except in Southland and on parts of the West Coast, important areas of forest on private land remain vulnerable to chainsaws and bulldozers.

"One sixth of New Zealand's remaining forest cover is on privately owned land and nearly 2,000 hectares of these forests are felled each year," chairperson of the Forest Heritage Fund Committee, Di Lucas says.

Established by the Labour Government in 1990 the Fund has a \$5 million budget for the 1991/92 financial year. It aims to protect private forests through:

- voluntary agreements or covenants where title to the land remains with the landholder.
- land purchase.
- the creation of reserves, or additions to existing reserves.
- accords and land exchanges to protect forested areas and help the landowner's economic viability.

Ecological significance is the key criterion for applications to the Fund and ecological expertise is well represented on the independent committee which meets quarterly to consider funding applications. The Committee's five members include beech ecologist and forest manager, Dr John Wardle of Oxford, former Forest and Bird Conservation Director and research scientist, Dr Gerry McSweeney, and Canterbury landscape architect and conservationist, Di Lucas.

Di Lucas says Ecological Society members have a good deal of local knowledge which can be used to help stimulate applications to the Fund. "It's a con-testable fund. The greater the range of applications which come to the Committee, the more likely we are to be able to protect the precious jewels of native forests which could otherwise be logged, " she says.

In evaluating ecological significance the Committee considers the representativeness of the forest area, whether it contains nationally or regionally threatened species or communities or the sole population of a species, the diversity of species, vegetation types, ecotones and landforms, the distinctiveness of the area, whether it is relatively unmodified or provides a forested corridor or buffer zone between protected natural areas or the coast, its ecological viability, and its national and regional importance. Cultural values such as the area's importance to Maori for harvesting of craft materials are also pertinent.

Areas of regenerating forest are eligible for assistance. Di Lucas says the Fund's definition of "indigenous forests" includes vegetation of any canopy height where some forest tree species

are present, and significant seral vegetation. The Fund takes the broad view and recognises that its task of preserving forest ecosystems includes protecting and managing areas which link forest and aquatic ecosystems, and not just areas under forest cover.

Where land is purchased with the Fund's help it usually becomes part of the conservation estate, and is managed by the Department of Conservation (DOC) unless another agency exists with suitable expertise.

Applications where ecologically valuable forest is to be gifted as a reserve or protected through a covenant with no financial benefit to the owner get top priority from the Fund. The covenant is registered against the title and ownership remains with the landholder who must comply with the management conditions in the covenant. These usually ban destruction of the forest canopy, grazing, earthworks, and chemical spraying and require the area to be kept free of noxious plants and pests such as rabbits. The Fund can help with the survey and legal expenses associated with covenants, and with fencing costs to keep stock out. Landowners are not then burdened with the costs of forest protection. If an independent negotiator is required the Fund can pay for this.

"Covenants are valuable because, rather than having all protected land in Crown control, they help spread the responsibility for conservation throughout the community. The landowner retains an interest in the area and is an on-the-spot caretaker," conservation officer with DOC Canterbury, Dave Forrester says. Covenants are also less expensive than buying the land so the Fund gets better value for every dollar spent.

Applicants do not need to own the forested land to apply. Private landowners, government departments and agencies, professional and community based organisations, umbrella organisations and local authorities can all apply to the Fund.

The closing dates for applications are 10 February, 30 April, 31 July, and 31 October. Application forms and further information are available from local Department of Conservation offices or the Secretary, Forest Heritage Fund, PO Box 10-420, Wellington. Telephone 0-4-471 0726.

Eugenie Sage



Department of Conservation staff Carl Chaplin (left) and Chris Bennett putting in a fence around the Awakiki Bush Scenic Reserve in South Otago. Behind them is the dense totara forest now protected as a result of the Department's successful application to the Forest Heritage Fund. Photo: Neville Peat/DOC

# LETTER TO THE MINISTER OF CONSERVATION

Dear Mr Marshall,

#### Control of Himalayan Thar in New Zealand

The New Zealand Ecological Society is concerned that the Department of Conservation has delayed writing a management plan to control Himalayan thar despite your published policy setting out the guidelines for such a control plan. There has been no coherent management plan for thar since 1984, and this management vacuum is wasting the opportunity to manage thar to protect conservation values provided by the huge reduction in thar numbers made by the helicopter meat-recovery industry during the 1970s.

We understand the delay has been caused by disagreement with the policy among some Conservation Boards and the Canterbury Regional Council, who appear to have adopted the preference of the Forest and Bird Society to have a policy that specifies eradication of thar.

The Ecological Society would also prefer that there were no thar in New Zealand. However, wishing will not make it happen, and in our opinion, a policy specifying eradication should only be accepted if eradication (no wild thar in New Zealand) is possible. For this to be so, the Department of Conservation must be able to meet two conditions:

1. It must be able to put all thar at risk.

It is not clear that the Department can do this either technically (some thar in Westland live in the forest and are less vulnerable to helicopters), or legally (can or should Government kill all thar held under Recreation Permits of the Land Act or held in captivity on non-Conservation land?).

It must be able to afford to kill all thar within a planned period.

This is to ensure they are killed at a rate faster than they can breed or spread back into cleared areas. Assuming no deliberate releases into cleared areas or new areas, this will cost at least \$5 million even under the most optimistic assumptions.

If you cannot meet these technical, legal, and financial conditions - a policy that cannot be implemented will lead to poor management. Your policy statement of June 1991 inferred that one or more of these conditions could not be met and so eradication of the species was not possible. Therefore, the policy determined that a management plan should set limits to thar densities in various management units and manage the various sorts of hunters (at minimal cost to the taxpayer) so that thar do not exceed these limits. The total number of thar will be the sum of the populations in each management unit - not 10000 thar somehow divided among management units as stated by some antagonists to the policy.

The Council of the New Zealand Ecological Society considers your policy sets an excellent example of how to manage pest animals that cannot be eradicated:

\* It requires that managers set and prioritise conservation goals.

- It requires managers to determine how few pests is few enough to attain these goals.
- \* It requires managers to manage their control techniques (in this case the various sorts of hunters) in the most efficient and sustainable way.
- \* It allows for reassessment of the goals, the nature of the pest's impact on them, the tolerable densities of thar, and of who hunts them.

In short, it is good science, good conservation, and good management, while the alternative is likely to be a mere slogan that will not achieve sustainable protection of the conservation values affected by thar. Note that New Zealand had a formal rabbit eradication policy from 1959 until 1972. This was rescinded because it was simply not technically or financially achievable and was hindering the development of good management policies and practices.

The New Zealand Ecological Society, therefore, urges you not to accept the heartfelt but impractical advice of those asking for a change of policy, but to proceed with the management plan under present policy.

Yours sincerely, John Parkes (President)

#### Continued from front page

The policy clearly agrees with Colin in demanding zero density of thar outside their present range and in "particularly sensitive areas" within the thar range. I suppose some of these areas might be National Parks, but I cannot see why tenure class should override biological status. Zero density is a better term than eradication for these areas as it implies the reality of some sustained effort to kill immigrants, while eradication does not. This will be a cost to DOC.

The policy also clearly agrees with Colin that ongoing research and monitoring will be necessary to test and modify the suitability of the threshold densities chosen in each management area. Naturally enough, I rather support this idea myself. At the moment, the total population will be the sum of the tolerable densities in each management unit but shall not exceed 10 000, not 10 000 thar somehow divided among management units. The "average" density of about 2 thar/km<sup>2</sup> is based on some evidence (albeit flimsy) that snow tussocks are regenerating at this density. As snow tussock forms the greatest single item in the diet of thar, it seems logical to measure impact on these species and not on some supposed impact on less common species which, in any event, survived the worst thar could do before commercial harvesting, so are unlikely to be threatened by present densities. I would be more worried about chamois than thar, as despite their less social habits, they much prefer herbs to grasses.

Finally, I disagree with Colin that the place to relitigate these points of argument about how few that is few enough and who should kill them is in the policy. The proper place to do that is in periodic revisions of the management plan, now being prepared by DOC. If people want to relitigate the policy by advocating eradication (remove all that), it behoves them to say where the millions of dollars should come from, and if from DOC's pest control budget, which present priority control/eradication operations should be abandoned.

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