

# ANNUAL REPORT FOR THE YEAR ENDING 30 JUNE 1980

(presented for adoption at the 28th Annual General Meeting)

## MEMBERSHIP

The Society accepted 19 new members and received 31 resignations during the year. Membership at 30 June 1980 was 487. There were 134 subscribers to the Journal (54 in New Zealand and 80 overseas).

## COUNCIL ACTIVITY

The Council met nine times at the Forest Research Institute, Ham, Christchurch.

The following appointments were made by the Council: Dr E. B. Spurr as Editor, Dr M. R. Rudge as representative to the Member Bodies' Committee of the Royal Society, Mrs H. R. Hughes as representative to the New Zealand Committee for Water Pollution Research, and Dr C. L. McLay as Newsletter Compiler. Conveners of Sub-committees appointed by Council were: AGM and Conference 1980, Dr J. A. Mills; Awards, Mr C. L. Batcheler and later Dr P. J. Moors; Conservation, Dr P. A. Williams; Education, Mrs M. E. Austin; Population, Dr W. Q. Green; Energy, Dr J. A. Wightman.

The Council made a submission to the Parliamentary Select Committee on the National Development Bill.

## EDITOR'S REPORT (E. B. Spurr)

This year there was a gratifying number of papers, especially contributed papers, submitted for publication in Volume 3 of the *New Zealand Journal of Ecology*. There was also a good response from speakers at Conference sending resumes of their Conference papers. A problem arising from Conference was that some invited Symposium speakers submitted papers in the form in which they were spoken, despite the warning in the Notice to Contributors at the back of the Journal. It must be emphasised that the Journal is not a Proceedings of Conference.

The quality of the Journal is primarily a reflection of the authors. However, the referees also play an extremely important (and generally unacknowledged) part. As Editor I appreciate the job they do, but I am also conscious of the problem of trying to maintain some consistency between hard- and easy-to-please referees. To maintain this consistency I have often had to become a second referee, but fear that inconsistencies still occur. Any inconsistencies may be attributed to the fact that

the job of Editor is an honorary one and is very time-consuming.

The task of editing has not been made easy by the lateness of many contributions this year. Indeed, the Journal would have been very slim if deadlines had been adhered to. Despite the risks, I recommend the setting of a realistic deadline (31 March?) and adhering to it.

There were a number of short papers submitted again this year, and I suggest that it might be worthwhile to introduce a short communications section in the Journal. This would not speed up publication of papers (as in some journals) but might encourage authors to submit papers on research that might not otherwise be published.

## NEWSLETTER EDITOR'S REPORT (C. L. McLay)

The Ecological Society Newsletter is produced four times per year and during the last twelve months newsletters have been produced in July and November 1979, March and June 1980, i.e. No's 23-26. These *four* newsletters have contained a total of 102 pages with 106 news items. The format used is two A4 typed pages being reduced and printed on each side of an A4 sheet, giving four typed pages to one printed page. Each newsletter has on average, contained approximately 25 pages. The front page lists the contents of the newsletter and carries the statement, "Items marked with an \* may require some action on your part. The other items are intended to be informative. Views expressed in this newsletter are not necessarily those of the New Zealand Ecological Society or its Council".

Items which appear in the newsletter come from a variety of sources: (1) material received by the Secretary, (2) reports of Council activities, (3) correspondence from members, (4) reports of sub-committee activities, (5) requests for information (especially long-term population studies), (6) stories or news about members and their research, (7) Statistics Department reports, (8) published book-reviews of interest to members, (9) articles from newspapers. Some regular items include changes in membership and addresses of Society members, Council business and New Zealand population data. Society members could enhance the value of the newsletter by sending in additional interesting material.

Each -newsletter costs approximately 40c to type, print and post to members. This represents a cost

of around 1.6c per page, which is very low. Costs are kept at a low level by having the newsletter printed by the University of Canterbury printery and by relying on volunteers to help put the pages together, staple, fold, put in envelopes and attach address labels. I would like to acknowledge the valuable assistance of many people, too numerous to name, who have helped produce the newsletter.

#### REPORT OF 'THE ROYAL SOCIETY MEMBER BODIES' COMMITTEE REPRESENTATIVE (M. R. Rudge)

There are now 43 member bodies of the Royal Society which between them contain 15000 affiliated members. During the year the Royal Society completed a central membership list on a computer file. This allows the quarterly R.S. Newsletter to be sent direct to members of member bodies.

The Members Bodies' Committee meets once each year, and this year has been convened as a working committee rather than as a rubber stamp for its standing management committee. This initiative by the President of the Royal Society (Dr R. K. Del') continued the policy of his recent predecessors to make the MBC more effective.

#### *Activities*

1. The MBC management committee arranges talks to Parliamentarians on scientific or technical topics of current interest. This year the topics were "Lignite", "Computers and the Work Force", and "The effect of automation on the workforce".
2. Schools Science Fairs are organised annually, and involve many thousands of children, parents, teachers, and service organisations in promoting scientific awareness and understanding.
3. Support is being given to the schools science quiz activity which has been tried in the Christchurch area this year.
4. A report on science syllabi was commissioned by last year's meeting and presented in May of this year. The MBC expressed its concern to the R.S. Council for the slowness of syllabus revision and teaching methods in science; and the paucity of science training for primary school teachers.
5. The Royal Society endorsed the Ecological Society's submission to the Parliamentary Select Committee on the National Development Bill. The Royal Society is pleased to consider requests from member bodies for support on issues of concern to them, but it is not, and does not have the structure to be, a pressure group.
6. Several member bodies expressed concern at

the continuing lack of understanding among scientists of how the Royal Society worked and what it did. The MBC resolved to prepare an information bulletin for the benefit of member bodies.

#### CONSERVATION REPORT (P. A. Williams)

The Council prepared a submission on the National Development Bill, emphasising those aspects which would be detrimental to public participation and scientific inquiry. A major concession included in what is now the National Development Act allows for the Tribunal's findings to be subjected to judicial review. However, most of our objections, as with those of the wider community, were not sustained. Major decisions about the place of heavy industry in New Zealand will probably be made without adequate public participation.

The place of wapiti in the Fiordland National Park has troubled administrators and public interest groups for many years. The present Minister of Lands is endeavouring to resolve the situation once and for all and to this end called for public submissions on recreational hunting as it affects the Park, following a report prepared by the Park Board. The Society pointed out several inadequacies in the way the report had treated the available scientific evidence but concluded that the value of the Park's native flora and fauna meant that "the Wapiti Area should be absorbed into the rest of the Park and the wapiti treated in the same manner as other introduced arrivals". This means they would be available for private or commercial hunting solely at the discretion of the Fiordland National Park Board and the Forest Service. The Minister has yet to make his decision.

Following the report of the Officials Committee on West Coast Reserve Proposals the Council prepared a critique of the findings, emphasising the inadequate scientific input to the Committee and the unsatisfactory manner in which economic values were considered in isolation from biological values.

The Council made a submission to the Commissioner for the Environment on an Environmental Impact Report for the Poor Knights Islands Marine Reserve. The concept of marine reserves was strongly supported and several suggestions were made for incorporation in the management plan.

The Department of Lands and Survey invited comments on the management plan for Codfish Island. One major problem here is to determine the interaction between introduced mammals, native birds and the vegetation. The Council recommended that before any precipitate action was taken to

disturb the status quo, sufficient research should be undertaken to determine the likely effects of any particular action, for example, the extermination of possums.

There is increasing support among scientists in New Zealand for the establishment of adequate reserves of all representative ecosystems. While most attention in recent years has been directed towards forest reserves, there is now an even greater need to establish reserves in non-forest areas (see Scott, *New Zealand Journal of Ecology*, 1979). This is proving extremely difficult where the land has productive capabilities, as was highlighted by the efforts of Dunedin scientists to obtain adequate reserves of tussock grassland in the Waipori Farm Development area. The Society supported the case for reserving the whole of the Nardoo Catchment, but the Land Settlement Board recommended that only half the proposed reserve area be designated.

#### EDUCATION REPORT (M. E. Austin)

There have been a number of developments in the efforts to produce slide-tape packages on ecological topics that can be used by sixth and seventh form biology students in secondary schools.

The Otago Science Resource Centre under the direction of Mr Maurice Jenner agreed to produce and circulate the packages as part of the Centre's library of similar material already available to the 280 secondary schools on their mailing list. The packages will be known as the Ecological Society Set.

Then the McKenzie Trust, the Environmental Council, and Mobil Oil Ltd showed keen interest in the project with the result that substantial financial support has been made available to us to help produce the material prior to submission to the Resource Centre. Consequently, we are now able to offer a small honorarium to the originators of packages and to use studio facilities and a professional narrator to make the tape. We are very grateful to our sponsors. Their support will be acknowledged on the titles and at the beginning of the narration on the tapes.

John Wightman's "Grassgrub Life Cycle" package has been very well received in Dunedin. Dr Wightman was complimented on an excellent piece of work.

Two further titles will be submitted in June: "Adaptation Energy and Conservation, A Grasshopper Biology"; Graeme White.

"Adaptation of an Alpine Mammal-The Chamois in New Zealand"; Les Batcheler, Chris Christie, Margaret Clark.

Titles in draft form which will be submitted in July are:

Speciation and Hybridisation of Two Introduced Mammals—Red Deer and Wapiti; Les Batcheler.  
Damsel fly life history; Joy Crumpton.

Other titles in preparation include:

Grassgrub and their environment

Plant associations

Beech forests

Endangered plants

Stream pollution

Niche differentiation of pipits and skylarks.

The sub-committee is very pleased with the response made by members to invitations to participate in this project. They hope that once members have seen the material at Conference, many more will volunteer to commit their particular interest and knowledge to the production of a package. We believe that the Society is making a very valuable contribution to the teaching of biology in schools in providing teachers with New Zealand examples to illustrate ecological principles.

#### POPULATION REPORT (W. Q. Green)

We hear little these days about population in the popular press or at Council meetings despite an easing in emigration rates and an upturn in the total number of births in New Zealand during last year. No requests for action came to Council and it is clear from my position on the Council of the NZ Demographic Society that many population issues are now being dealt with more appropriately by them. Our Society clearly has a role to play when the issues widen to include population-resources-energy-consumption rates, although Council may now feel that this particular sub-committee is no longer the appropriate vehicle for any such further actions.

#### CANTERBURY GROUP REPORT (M. R. Butcher)

The local committee elected at the 1979 A.G.M. comprises: Chairman, Mike Butcher; Secretary / Treasurer, Melvin McLennan; Newsletter Editor, Jim Bell; Committee, Bruce Warburton, Tony Williams, Colin Burrows (co-opted).

Meetings organised this year include:

8 August 1979 Arachno-Ethology. Dr Robert Jackson 14 (9).

6 November 1979 Rabbit farming. Jim Bell and J. Morgan Williams 12 (7).

February 1980 Crop Protection in Fiji. J. Morgan Williams 13 (9).

21 April 1980 An informal evening: Behaviour of NZ Robins. R. Powlesland; 1080 in New Zealand.

C. L. Batcheler; Stewart Island forests and browsing animals. J. Coleman 19 (14).

Attendance at the meetings increased as compared with 1978/79.

The April meeting was planned as a talk by John Bathgate on Climatic History from Southland Forests. Unfortunately, John had his dates confused and couldn't give his presentation on the 21st. It is hoped he will speak at the June meeting which will also be the A.G.M.

The Canterbury Group was approached by Fisheries Division staff of MAF for comments on and support for their proposals to involve interested groups concerned about the maintenance of recreational values of the Rakaia River. An initial meeting of such interested groups emphasised the problem that recreational users are not being considered sufficiently by the "River Takers", the MOWD irrigation schemes. Members were asked to notify the committee of their view so that the local group may act. No support from members was forthcoming. At the next meeting of concerned groups (organised by the NCA Society) it was stated by our representative that the Canterbury Branch would be an observer in this case. We were interested in the general ecology of the Rakaia River but we were not specific users. The groups combined to present objections to the MOWD water right application.

#### ANNUAL CONFERENCE 1979

The 28th annual conference was held at Marlborough College, Blenheim, on 21-24 August 1979. A total of 130 people registered.

On the first day, following registration, informal discussion groups were held. Such topics as current vertebrate research, reserves and conservation issues, new research fields, plant community ecology, technical developments, and ecological education were included in these discussions. In the evening the Society's guest, Professor Howard T. Odum, chaired a discussion group on the principles of regional ecology.

The symposium on the second day was on ecological perspectives on resource use in Marlborough. Papers read were:

1. P. Simpson: "Introduction to Marlborough".
  2. I. B. Mitchell: "Conflicts of resource use in the Marlborough Sounds".
  3. L. W. Vaughan: "The possible development of a major forest industry in Marlborough".
  4. D. A. MacKay: "The Marlborough Catchment Board East Coast survey-effects of climatic extremes".
  5. D. R. Given: "Threatened biota-an expendable resource?".
  6. N. Matthews: "Effects of recreation on the ecology of the Marlborough Sounds".
  7. G. A. Knox: "Past, present and future impact on the ecology of Shakespeare Bay, Queen Charlotte Sound".
  8. P. Tortell: "Mussel farming in Marlborough Sounds".
  9. A. Baker: "Hector's dolphin (*Cephalorhynchus hectori*)".
  10. C. O'Loughlin: "Sedimentation patterns in the Marlborough Sounds".
  11. W. J. Ballantine: "How can we get marine reserves in New Zealand?".
  12. B. J. Donovan: "Interaction of native and introduced bees in Marlborough".
- The third day was devoted to a field excursion by boat and bus to various points of interest around the Sounds.
- The final day was taken up with an invited paper by H. T. Odum on energy hierarchy of nature and the following contributed papers:
1. P. Wardle: "Ecology and distribution of silver beech in the Paringa district".
  2. G. T. S. Baylis: "Mycorrhizas and the spread of beech".
  3. M. McGlone: "Late post-glacial vegetation change in coastal Southland".
  4. C. M. King: "The adaptive value of delayed implantation in the stoat (*Mustela erminea*)".
  5. P. J. Moors: "Predation on breeding birds in Kowhai Bush, Kaikoura".
  6. A. J. Garrick: "Diet of pipits and skylarks at Huiarua, Tokomaru Bay".
  7. J. Ogden: "Tree rings and forest dynamics -an introduction to dendrochronology for ecologists".
  8. J. R. Bray: "A preliminary estimate of the carbon budget for New Zealand".
  9. M. P. Mosley: "Vegetation, erosion and sediment sources in the Harper-Avoca watershed".
  10. N. T. Moar: "Late Otiran and early Aranuiian grassland in central South Island, New Zealand".
  11. G. Lindsay: "The distribution of *Salkomia australis* and *Samolus repens* in relation to nutrients in a salt marsh".
  12. C. West: "Studies of some aspects of forest regeneration on Tiritiri Matangi Island (Hauraki Gulf)".
  13. N. D. Mitchell: "A study of the nutritive value of the various growth forms in the genus *Pseudopanax*".

14. B. P. J. Molloy and M. J. A. Bulfin: "Ecology of the Marlborough rock daisy (*Pachystegia*)".
15. P. R. Henriques: "The use of the water and Soil Conservation Act 1967 in Biological Resource protection: A few case studies from the Waikato district".
16. M. N. Clout: "Comparison of bird populations in exotic plantations and native forest".
17. D. G. Dawson: "Do New Zealand Forest Reserves meet zoogeographic criteria?".
18. M. Sell: "A quantitative method for assessing the value of wetlands".
19. K. Thompson, B. Clarkson, and B. Dickinson: "Tarawera: A unique montane vegetation under threat from tourism".
20. M. C. Wassilieff: "Aspects of vegetation/soil dynamics in the Marlborough Sounds Maritime Park".
21. P. C. Kennedy and M. C. Wassilieff: "Total sulphur and phosphorus in soils and vegetation types in the Marlborough Sounds".
22. M. N. Foggo: "Where ptarmigan and grouse draw the line".

#### 27TH ANNUAL GENERAL MEETING

The 27th Annual General Meeting was held at Marlborough Girls College, Blenheim, on 22 August 1979, and was attended by 74 members.

The minutes of the 26th A.G.M. were approved and the Annual Report for 1978/79 was accepted as printed in the *New Zealand Journal of Ecology*, Volume 2. Reports were received from the Treasurer, Editor, and the Conservation and Education sub-committees.

Three motions were passed; raising the Society's annual subscription, restricting the availability of the membership directory, and supporting the formation of a national biological resources study co-ordinating body.

The meeting elected the following Officers and Councillors:

President:	Dr M. C. Crawley
Vice-President:	Mr T. A. Caithness
Secretary:	Mr J. P. Parkes
Treasurer:	Mr M. R. Butcher
Council:	Mrs M. E. Austin, Mrs M. J. A. Bulfin, Dr M. N. Clout, Dr D. R. Given, Dr W. Q. Green, Mr K. R. Hackwell, Dr C. L. McLay, Dr J. A. Mills, Dr P. J. Moors, Dr J. Ogden, Dr P. G. Simpson, Dr E. B. Spurr, Dr E. G. White, Dr J. A. Wightman, Dr P. A. Williams.

Boyd, Knight and Co were re-appointed Honorary Auditors.