

ANNUAL REPORT FOR THE YEAR ENDING 30 JUNE 1981

(presented for adoption at the 29th Annual General Meeting)

MEMBERSHIP

The Society accepted 33 new members and received 13 resignations during the year. Thirty members were expelled for non-payment of subscriptions. Four existing members took advantage of the new retirement membership, while three of the new members were admitted as introductory members. Membership at 30 June 1981 was 492. There were 151 subscribers to the Journal (63 in New Zealand and 88 overseas).

COUNCIL ACTIVITY

The Council met nine times at Ilam, 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 were: AGM and Conference 1981, Mr K. W. Duncan; Awards, Dr P. J. Moors; Conservation, Dr P. A. Williams; Education, Mrs P. M. Williams.

EDITORS REPORT (E. B. Spurr)

A good number of papers and resumes were submitted for publication in Vol. 4 of the Journal. Once again, the lateness of some submissions and the pressure of my own work have been a problem.

This year, for the first time, the size of the Journal has been determined by a budget. The idea of the budget is to have the Journal paid for by the correct subscription money.

The problem of financing the Journal has been considered by the Council, and several possible solutions have been suggested, including the application for grants from private sources and an approach to a private publishing company. Unfortunately, Government Departments also have a limited budget, and the DSIR is currently not able to expand its publishing effort, so we cannot expect assistance from this source.

At a meeting of Scientific Editors, convened by the Royal Society, we were advised that the days of letterpress printing are limited since linotype operators are no longer being trained and new machines are not being made. The new technology uses computer type setting and offset printing. For small print runs (such as ours) this process is more expensive than letterpress. Further changes in

printing technology are likely, so that by delaying until we are finally forced to accept offset printing, it may be relatively cheaper. The meeting recommended that the Royal Society establish a permanent editorial advisory group to help Societies such as ours.

NEWSLETTER COMPILERS REPORT (C. L. McLay)

The newsletter normally appears four times a year but during 1980/81 only three issues were published (Nos. 27-29). This was a result of a Council decision to try and conserve finance. The format of previous issues was maintained with a half A4 page size. A high standard of presentation and printing was achieved, due solely to the skill and expertise of our typists and the University of Canterbury Printer. The last four newsletters have contained approximately 120 pages of information with some illustrations. Newsletter No. 27 was the longest yet produced, consisting of 40 pages. Some 109 items were included in the newsletters covering a wide range of topics all of which should be the concern or interest of members of the Society. The 'Letters to the Editor' section has been active with the main topic being vegetation classification and field methods of plant ecology. Sections on Council Business, Membership Changes, AGM and Conference and the Royal Society were also regular features.

Some of the major subjects covered in the newsletter were: audiovisual packages for high schools, field study projects for schools, results of Conference discussion groups, OECD review of NZ environmental policy, National Development Act, National Parks Act changes, Wild and Scenic Rivers legislation, review of wildlife research in NZ, water pollution research, mining and the environment, West Coast forest management plans, NZ population changes, Official Secrets Act and Freedom of Information, Future Studies in NZ, Conservation in the Antarctic, Sea-bed Mining off NZ, phosphate supplies, issues in NZ Fisheries, dumping nuclear waste in the Pacific and cutting tropical forests. In addition notices of forthcoming meetings were often included.

I wish to thank all those who helped pack and post the newsletter and I trust that members have enjoyed reading it. If they did not find it interesting then please help to improve it by sending in items.

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

The number of member bodies affiliated to the Royal Society has now grown to 47, bringing the total affiliated membership to about 18,000. The Member Bodies' representatives meet as a committee once each year, and the Executive Committee of this MBC has met three times in the past year. Criticism has been voiced at previous MBC meetings that the Executive Committee was promising too much and achieving too little. This year there have been significant successes.

1. The Royal Society has examined what problems exist for scientists wishing to take time to attend conferences, and in having their expenses covered. This is more complex than it seems at first, and the Royal Society is still studying it.
2. Meetings have been convened for Member Body Editors to discuss common problems. Professional editors also attended.
3. The Royal Society continues to organise activities to carry science to all levels of the community. This includes talks to Parliamentarians, school science fairs, school science quizzes, and encouragement for radio and TV productions.
4. A brochure has been prepared over the past year explaining the work of the Royal Society. It is about to go to press.

CONSERVATION REPORT (P. A. Williams)

The problem of Codfish Island continued from last year. There was an appeal from a member of the Society to help stop the killing of wekas which were endangering Cook's petrel. Because several officers of the Society are in the Wildlife Service, independent scientists were asked for their opinions. Their conclusions supported the actions being taken by the Wildlife Service - that wekas are expendable in an effort to save the petrels from extinction.

Another member of the Society expressed concern that the Forest Service was using podocarp seed from a limited number of collections to establish plantings all over New Zealand. This does in fact appear to be happening, but it is in line with the standard forestry practice of using the best material, regardless of origin. However, the Forest Service considers this will not compromise the ecological values of the areas established as ecological reserves.

Council made a submission to the Department of Lands and Survey on their proposed guidelines for collecting within National Parks and Reserves. The general principle of having controls on collecting was supported, but these should not be so severe as to discourage scientific research.

Council made a submission on the leasing of the Waimangu Valley Scenic Reserve, pointing out that the biological and natural values of such reserves must take precedence over all other possible uses of the reserve. This should always involve a biological survey of the reserve *before* the terms of the lease are drawn up.

In 1980 the OECD (Organisation for Economic Cooperation and Development) reviewed the environmental policies in New Zealand. Their report was made available for public comment and Council made a submission. While we had previously opposed the merger of the Environmental Council and the Nature Conservation Council, the suggestion put forward in the OECD report appeared to have considerable merit, as it would also involve a re-structuring of the Commission for the Environment. They suggested an agency or ministry to advise Cabinet on an overall environmental policy and to coordinate environmental policies within Government. Some aspect of the existing Commission would be combined with the two councils to produce a single strengthened council that would report to Parliament through the Minister of the Environment. Our submission also supported many of the conclusions of the OECD report concerning such matters as the lack of environmental planning in New Zealand and the need for an intensified biological survey.

EDUCATION REPORT (Mrs P. M. Williams)

Progress with slide-tape packages on ecological topics, for use by sixth and seventh form biology students, has been steady though slow. The Ecological Society, using grants from the McKenzie Trust, the Environmental Council and Mobil Oil Ltd has assisted contributors with the completion of three excellent packages, now distributed through the Otago Resource Centre. Titles are: "Grassgrub Life Cycle", J. A. Wightman; "Adaptation, Energy and Conservation, A Grasshopper Biology", E. G. White; "Adaptation of an Alpine Mammal/The Chamois in New Zealand", C. L. Batcheler, A. H. C. Christie, C. M. H. Clarke.

Two further packages ("Speciation and Hybridisation of Two Introduced Mammals - Red Deer and Wapiti", C. L. Batcheler; "Comparative Ecology of Manuka and Kanuka", A. F. Mark) are in the

final stages of preparation. Other topics in preparation include: Energetics of the Leaf-eating Beetle, Energetics Techniques, Adaptations of Grassgrubs, Endangered Plants, Red-billed Gulls.

The sub-committee trusts potential contributors realise grant money is available not only to pay a small honorarium but also to assist with graphics, commentary and costs. Excellent guidelines make

organisation of material an easier task and we can receive graphics etc. in a non-final form and up-grade these for the contributor. While appreciating how busy many members are we look forward to more contributors committing their knowledge and time to increase the range of topics in this worthwhile ecological tape-slide series.

CANTERBURY GROUP REPORT (A. J. Connor)

The Canterbury Group met seven times during the 1980/81 year. The local committee elected at the 1980 AGM comprised: Chairman, Tony Conner; Secretary /Treasurer, Melvin McLennan; Newsletter Editor, Lindsey Conner; Committee, Colin Burrows, Jim Coleman, Bruce Warburton.

At the meetings during the year a variety of talks were expertly presented and inevitably followed by stimulating discussions. The speakers were:

- 23 June 1980 - J. Bathgate; Climate history from Southland forests.
- 15 September 1980 - G. Williams; New Zealand bats.
- 6 October 1980 - T. Veblen; Dynamics of *Nothofagus* forests in South Central Chile.
- 3 November 1980 - M. Powlesland; Floral biology of some *Melicetus* species.
G. Sandlant; The gallery habit of the New Zealand weta.
P. Keartin; Ecology of the yellow-breasted tit.
Held in conjunction with wine and cheese.
- 31 March 1981 - M. Butcher; Two spotted mites on strawberry: Prospects for management of a pest.
- 28 April 1981 - L. Conner; Ecology of five sub alpine *Acaena* species.
- 26 May 1981 - B. Donovan; Evolution of bees: Current research in New Zealand.

A disappointing aspect of the year's activities was the erratic attendance of members to meetings (range 8-36). Poor attendance is embarrassing, especially when speakers have put considerable effort into preparation of their talks. A greater effort from our 45 + membership could be expected.

MANAWATU GROUP REPORT (R. A. Fordham)

The committee elected at the AGM in November 1980 comprised: President, Robin Fordham; Secretaries, Arthur Todd, Aylene Hobson; Treasurer, Sheila Coombs; Members, Heather Outred, Michael Greenwood, Ray Zandar.

Meetings attracted more than the c.25 financial members, and centred around the themes of different

swamp types, land use, and native plants. The arranged programme for 1981 was:

- 4 March - John Skipworth; Manawatu lowland forest - past, present and future (60).
- 7 March - Mike Greenwood; Field trip to the swamp forest remnant at Round Bush (24).
- 1 April - Don Brown and Simon Kelton; Drainage patterns, and ecology of sambar deer in the Moutoa flax swamp (35).
- 6 May - (with Manawatu Branch OSNZ) - Peter Lo and Mike Moffat; White-faced heron, and spur-winged plover ecology and behaviour at Pukepuka Lagoon (45).
- 10 June - Mike Rudge; The document "Land Alone Endures".
- 1 July - Keith Syers; Impressions of land use and waste recycling in mainland China.
- 5 August - Derek Williams and John Boldt; Planning for, and management of, heavily used recreational areas.
- 2 September - AGM, John Abraham; The Manawatu fern *Adiantum formosum*.
- 30 September - Robert Burgess; Population aspects of *Carex pumila*.

ANNUAL CONFERENCE 1980

The 29th Annual Conference was held at Victoria University, Wellington, on 26-29 August. A total of 187 people registered.

Once again an informal series of discussion groups were held after registration. The symposium on the second day was on 'Population Ecology' and following an introduction by Mr C. L. Batcheler, the Society's guest Prof. Amyan McFadyen addressed the conference on "Relations between population dynamics and other fields of ecology". Other symposium papers read were:

- 1. J. Ogden: "The annual cycle of growth and survivorship in clones of *Typha* in Pukepuka Lagoon".
- 2. K. R. Hackwell: "A new interpretation of the ecology and history of the central North Island forests following the Taupo eruption 120 AD".
- 3. N. D. Barlow: "Modelling aphid populations".
- 4. M. G. Sell: "Simulation of the population dynamics of the New Zealand shelduck (*Tadorna variegata*)".
- 5. A. Carpenter and N. Barlow: "The relationship between the phenology of porina populations and losses of pasture production".
- 6. R. East, P. D. King and R. N. Watson: "Population dynamics of grass grub and black beetle".

7. B. I. F. Manly: "Estimation of absolute and relative survival rates from recoveries of dead animals".
- 8 J. E. C. flux and M. Mo Flux: "Population dynamics and age structure of starlings".
9. W. G. Lee: "Ecotypic differentiation in the South Island ultramafic flora".
10. A. S. W. Panniket: "The status of populations of the terrestrial snail, *Placostylus*. in the north of New Zealand".
11. J. A. Gibb: "Some conflicting ideas about what limits the numbers of some small (or smallish) mammals".
12. C. M. H. Clarke: "Natural regulation of population size in a chamois population free from shooting".

On the morning of the third day an invited panel of senior officers of major organisations employing ecologists outlined their plans for ecological research in the 1 980s. Speakers included Dr C. Bassett (NZFS), Dr G. Butler (DSIR), Dr N. Lambrechtsen (MOWO), Prof. J. Duncan (Commission for the Future), Mr O. A. Thorn (Environmental Council) and Prof. A. Mark (Universities).

In the afternoon a field trip to Bartons Bush, a forest remnant in the Hutt Valley, and Pauatahanui Inlet was enjoyed by all.

The final day was taken up with invited papers:

1. O. Norton: "Dendroclimatological studies in the South Island - some preliminary results".
2. M. S. McGlone and C. J. Webb: "The evolution of divaricating plants and other supposedly moa-resistant species: the climatic hypothesis".
3. T. R. Felton: "Effect of tag loss on estimation of animal abundance".
4. P. Armstrong, G. N. Park and B. J. P. Molloy: "Towards a national classification of plant communities, habitats and landscapes".
5. P. M. Blaschke: "Analysis of New Zealand vegetation cover from land resource inventory worksheet data".
6. N. D. Mitchell: "Numeric analysis of vegetation surveys: problems of data reduction, selection and interpretation".
7. C. C. Ogle: "The ranking of forested wildlife habitats".

8. P. Simpson: "The Marlborough tree brooms: an assessment of their ecological status".

9. R. E. Brockie and A. Moeed: "Animal biomass in broadleaf/podocarp forest of the Orongorongo Valley, Wellington".

10. R. G. Powlesland: "A comparison of the time-budgets for adult male South Island robins at Kowhai Bush and Outer Chetwode Island".

11. P. M. Pavlov: "Lamb predation behaviour of feral pigs and its relevance to the New South Wales sheep industry".

12. I. McFadden: "Breeding biology of grey teal in nest boxes".

13. G. R. Williams: "Aspects of avian island biogeography in New Zealand".

28TH ANNUAL GENERAL MEETING

The 28th Annual General Meeting was held at Victoria University on 27 August 1980, and was attended by 53 members.

The minutes of the 27th AGM were approved and the Annual Report for 1979/80 was accepted. Reports were received from the Treasurer, Editor and conveners of the sub-committees.

Two new classes of membership were approved - Introductory and Retired - both classes are without receipt of the Society's Journal.

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:	Dr N. Barlow, Mrs M. J. A. Bulfin, Dr C. N. Challies, Dr M. N. Clout, Dr O. R. Given, Dr W. Q. Green, Mr K. R. Hackwell, Dr C. L. McLay, Dr I. G. McLean, Dr J. A. Mills, Dr N. O. Mitchell, Dr P. J. Moors, Dr J. Ogden, Dr E. B. Spurr, Dr E. G. White, Dr J. A. Wightman, Dr P. A. Williams.

Boyd, Knight and Co. were reappointed Honorary Auditors.