

## ANNUAL REPORT FOR YEAR ENDING 30 JUNE 1978

(presented for adoption at the 26th Annual General Meeting)

### MEMBERSHIP

During the year the Society accepted 31 new members and received 17 resignations. Membership now comprises 463 members plus 19 joint members for a total of 482. There are 131 subscribers to the Journal (formerly the Proceedings).

### COUNCIL ACTIVITY

The Council met in Christchurch eight times during the year. Mr D. C. Catt resigned as Secretary in November upon taking up a position overseas. He was replaced by Dr E. B. Spurr, who had previously been compiler of the Newsletter. Dr M. C. Crawley was appointed Editor, Dr M. R. Rudge was reappointed as representative to the Member Bodies' Committee of the Royal Society, Mrs H. R. Hughes was reappointed as representative to the New Zealand Committee for Water Pollution Research, Dr D. Drummond was appointed compiler of the Membership Directory, and Dr C. L. McLay was appointed Newsletter compiler following Dr Spurr taking over as Secretary.

Convenors of Sub-Committees appointed by the Council were: Registrar of Ecological Consultants, Mr A. H. C. Christie; Population, Dr W. Q. Green; Awards, Miss R. Mason; Conference and AG.M., Dr J. A. Wightman; Ecological Education, Mrs M. E. Austin; Conservation, Dr P. A. Williams.

### EDITORS REPORT (M. C. Crawley)

At the 25th Annual General Meeting it was decided that the *Proceedings of the New Zealand Ecological Society* should have a new name: The *New Zealand Journal of Ecology*. The cover of the new *Journal* was designed by Mr Michael Hurst, Department of Fine Arts, University of Canterbury; otherwise the *Journal* is similar in appearance to the *Proceedings*. Page size, print type and layout of the *Proceedings* are retained to preserve what many consider to be an attractive and readable format, and to avoid any increase in production costs. An Information Leaflet about the *Journal* has been prepared for the information of present and potential subscribers in New Zealand and overseas. The content of the new *Journal* is similar to that of recent volumes of the *Proceedings* but an innovation is the publication of two submissions made by the Society, one to the

Royal Commission on Nuclear Power Generation in New Zealand and the other to the Hon. Minister of Forests. It is intended that more submissions of this nature will be published. Another intention is to increase the number of books reviewed in the journal, particularly those published in Australasia.

The success of the new journal will depend upon the support it receives from members in submitting papers for publication, and all are invited to do so. Potential contributors are urged to read the Notice to Contributors inside the back cover of the journal: adherence to the guidelines given will greatly facilitate the preparation of manuscripts for publication.

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

The Member Bodies' Committee now has 43 members.

The Member Bodies' Committee has replaced its "Subcommittee for the Appreciation of Science in Secondary Schools" with a "Schools Liaison Officer" who will be an *ex officio* member of the executive of the N.Z. Science Teachers Association. The Society continues to sponsor Science Fairs throughout the country.

The Member Bodies' Committee has a TV and Radio subcommittee and welcomes suggestions for programme material. Other activities to promote Science include talks to Parliamentarians; and a forthcoming discussion with science correspondents and a UNESCO group on "The Dissemination of Science to the Public". The Member Bodies' Committee is also planning to bring N.Z. Scientific Editors together to discuss common problems.

The duties of the former Conservation subcommittee of the Royal Society are now discharged by the Member Bodies' Committee. During the year comment was made upon the Town and Country Planning Bill 1977 (by the Ecological Society); the proposed amendments to the Native Plant Protection Act 1934; and the EIR for the Waipori Land Development Block. The Member Bodies' Committee is obviously finding two difficulties here, firstly in being aware of legislative changes and of "issues", and secondly in channelling the task of commenting to the appropriate Member Body. To overcome these it is considering subscribing to "Common Concern", and appointing a small group to provide rapid liaison with Member Bodies.

Stage 1 of Royal Society House in Thorndon is now functioning as the administrative centre of the Society. The need to plan for Stage 2 has recently been given added point by the announcement that the Victoria University of Wellington now needs the space that it has allowed the Royal Society to use as a library. Member Bodies and individuals can therefore expect to be asked for donations to Stage 2 of Science House in the not too distant future.

#### ECOLOGICAL EDUCATION (Margaret Austin)

The Sub-committee began regular meetings after the 1977 AGM. Its first task was to establish the needs and then to set priorities for action.

Information was obtained from organisations in New Zealand and abroad and as this became available it was clear that a great deal of useful material was already available through the Nature Conservation Week Campaign and the Commission for the Environment. We resolved to place before Council a proposal that we prepare one or more packages of audio-visual material on Ecological topics related to senior biology courses in schools. These would consist of a film strip or slides with accompanying taped commentary, a teachers' guide and a follow-up extension exercise containing data related to the topic with interpretive questions. The whole package would represent approximately 1-2 hours work for a senior student.

Two sample packages will be available at Conference and at the N.Z. Science Teachers Association Conference in August. Topics being prepared are: Ecology of Chamois and Grassgrub Ecology. In addition the committee has undertaken to prepare a topic-centred bibliography for some population studies.

The Committee feels that there is a wealth of expertise amongst members of the Society which should be shared with teachers, teachers in training, and senior students. The ultimate aim is a better informed public.

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

*Parliamentary Legislation:* Council has often found itself caught unawares when asked to make submissions on new or proposed legislation. To overcome this problem the Society now subscribes to Common Concern, a Wellington-based organisation which provides members with up-to-date information on all parliamentary activity that might bear on their interests.

*Sub-antarctic Islands:* The new Reserves Act 1977 charges the Department of Lands and Survey with preparing management plans for its reserves. In

reply to a request for suggestions on the Snares, Antipodes and Bounty Islands, a letter was sent indicating that the management plan ought to aim primarily at leaving things as they are. The likelihood of increased commercial activity in the subantarctic may mean these islands should have resident wardens.

*Endangered Species:* Council investigated the status of legislation governing the protection of native biota, other than that pertaining to Reserves and National Parks. Enquiries made to several specialists confirmed that very few native plants, invertebrates, fish, lizards or frogs are specifically protected under existing legislation. However, Botany Division, DSIR, is preparing material for a new bill to protect specific plant species. The Ministry of Agriculture and Fisheries are revising the Fisheries Act, and the Wildlife Service are revising the Wild Life Act. This last revision seems particularly urgent, especially for the conservation of some invertebrates and lizards, but the Ministry of Internal Affairs indicated that the draft bill is unlikely to be tabled in the near future.

*Central North Island Forests:* The Council made a submission (June 1978) to the Minister of Forests on the New Zealand Forest Service's management proposals for the State forests of the Hauhungaroa-Rangitoto Ranges. The Society recommended the suspension of logging until its effects on the forest ecosystem and the integrity of biological reserves were better understood. An expanded research programme on silvicultural and harvesting techniques pertinent to sustained yield management of the forests was also urged.

*West Coast Forests:* Council made a wide-ranging submission to the Minister of Forests on the future of the West Coast forests and forest industries. The Society supported, in principle, the reserve proposals being formulated by the scientific co-ordinating committee for Beech Research. We considered there was insufficient knowledge of either the forests or their fauna to delineate representative reserves, but were opposed to reduction of existing and proposed reserves to meet short falls in podocarp timber.

#### ANNUAL CONFERENCE 1977

The 26th annual conference was held in Christchurch on 24-26 August 1977. A total of 116 members registered their attendance.

In the morning of the first day there was a joint symposium with the Plant Physiological Society on "The Ecology and Physiology of Competition Between Plants". Symposium papers read were:

1. R. E. Lill, J.A. McWha and A. L. J. Cole, "The influence of volatile substances from incubated litter of *Pinus radiata* on seed germination".
2. B. P. J. Molloy, J. D. Ferguson and P. J. Fletcher, "The allelopathic potential of leachates of kahikatea (*Dacrycarpus dacrydioides*)".
3. R. B. Primack, "The application of niche theory to plant competition".
4. C. J. Burrows, "Competition between *Chionochloa australis* and snow-grasses".
5. M. W. Dunbier, K. B. McSweeney and W. Kain, "The effect of the blue-green lucerne aphid on various lucerne cultivars".
6. R. G. Thomas and D. Hollows, "Contributions of physiological studies to the understanding of the adaptive significance of juvenility in *Pennantia corymbosa*".

In the afternoon of the first day the following contributed papers were read:

1. C. L. Batcheler, Presidential address.
2. N. A. Martin, "The Lumbricidae (Earthworms) in New Zealand pastures".
3. M. E. R. Godfrey, "The role of chemosterilants in vertebrate pest control".
  4. B. Warburton, "The foods of the opossum (*Trichosurus vulpecula*) in a Canterbury exotic forest".
5. P. N. Johnson, "Fiordland sand dune vegetation and its management for conservation".
6. M. McEwan, "The food of the New Zealand pigeon *Hemiphaga novaeseelandiae*".

The second day was divided into a morning excursion and an afternoon display of equipment. Approximately 40 members attended the excursion covering much of the western half of Banks Peninsula. The equipment display featured such items as a sub-nuclear reactor, radio-telemetry, infra-red sensors, a mobile field laboratory, field event recorders, raptor trapping techniques, stereo-photography, automatic meteorological station, and many others.

The third day was devoted entirely to contributed papers, as follows:

1. R. B. Primack, "Pollination ecology of New Zealand plants".
2. D. Lloyd, "Age-specific survival processes in plants".
3. Dr Mary T. Kalin Arroyo, "Reproductive

ecology of species in a tropical deciduous forest in Venezuela".

4. J. L. Craig and M. Douglas, "Aspects of the ecology of bellbirds on Tiritiri Island".
5. N. C. Fox, "Progress on techniques in the captive breeding of New Zealand Falcons".
6. B. Gill, "Breeding of the grey warbler at Kowhai Bush, Kaikoura—a report on a thesis in progress".
7. C. D. Meurk, "Primary productivity in some alpine communities of Otago".
8. J. Parkes, K. G. Tustin and L. Stanley, "The history and control of deer in the Murchison Mountains, Fiordland National Park".
9. D. H. Greer, "Ecophysiology-leaf elongation and photosynthesis of Central Otago alpine snow tussocks".
10. B. Cowie, "Stream communities in a West Coast beech forest catchment".
11. C. Lucas, "Technique for the sampling of surface fauna in running water".
12. D. G. Neary, A. J. Pearce, L. K. Rowe and C. L. O'Loughlin, "Forest management impacts on nutrient flux in beech-podocarp-hardwood forests".

#### 25TH ANNUAL GENERAL MEETING

The 25th Annual General Meeting was held at the University of Canterbury, Christchurch, on 25 August 1977, and was attended by 64 members.

The minutes of the 24th AG.M. were approved, and the Annual Report for 1976/77 was accepted as printed in the Proceedings Vol. 24. Reports were received from the Treasurer, Editor, N.Z. Committee for Water Pollution Research Representative, Royal Society Member Bodies' Representative, and Convenors of Sub-committees.

Four motions were considered. The first motion (moved A. H. C. Christie, seconded J. A. Mills) "That the title Proceedings of the New Zealand Ecological Society be changed at the next issue (and issues thereafter) to New Zealand Journal of Ecology" was *carried*. The second motion (moved J. A. Mills, seconded J. Warham) "that the Society promote an award for outstanding contributions to New Zealand ecology" was amended (H. R. Hughes, G. A. Knox) to "that the Council investigate the promotion of an award for outstanding contributions to New Zealand ecology", and the amended motion was *carried*. The third motion (moved S. R. June, seconded D. G. Dawson) "that the Society rejoins

E.C.O. (Environmental and Conservation Organisations of New Zealand)" was amended (C. D. Meurk, P. A. Williams) to "that the Society rejoins E.C.O. as a B class member", and the amended motion was *lost*. The fourth motion (moved W. Jowett, seconded C. J. Burrows) "that the Council investigate the roles the Society can play in the field of ecological education and that the results of these investigations be reported to Conference in 1978" was accepted by more than two thirds of the members present, and *carried*.

Under General Business, membership of INTECOL, our involvement in planning for the future, and our involvement in the conservation issues of Central North Island forests were discussed.

Dr Rudge called on members to congratulate Dr P. Wardle for attaining the highest honour in New Zealand science by being elected as a Fellow of the Royal Society of New Zealand.

The meeting elected the following Officers and Councillors:

President:	Mr C. L. Batcheler
Vice-President:	Dr J. Warham
Secretary :	Mr D. C. Catt
Treasurer:	Dr J. M. Williams
Council :	Mrs M. E. Austin, Mrs M. J. A. Bulfin, Mr D. J. Campbell, Mr A. H. C. Christie, Dr W. Q. Green, Dr P. N. Johnson, Miss R. Mason, Dr J. A. Mills, Dr J. A. Wightman, Dr P. A. Williams.

Boyd, Knight and Co. were appointed Honorary Auditors.