

THE ROYAL SOCIETY OF NEW ZEALAND

MINUTES OF THE MEETING OF COUNCIL HELD ON THE 16th NOVEMBER, 1954.

THE HALF-YEARLY MEETING of the Council of the Royal Society of New Zealand was held on Tuesday, 16th November, 1954, commencing at 10 a.m. in the Council Room, Victoria University College, Wellington.

Chair. The President, Dr. David Miller, was in the chair.

Roll Call. The following responded to the roll call.—President—Dr. D. Miller, Vice-Presidents—Dr. M. A. F. Barnett and Professor L. H. Briggs; Government Representatives—Mr. F. R. Callaghan and Dr. C. A. Fleming; Representing Auckland Institute—Professor K. B. Cumberland and Mr. A. T. Pycroft; Representing Wellington Branch—Mr. K. R. Allen and Professor Richardson; Representing Canterbury Branch—Professor R. S. Allan and Mr. C. E. Fenwick; Representing Otago Branch—Miss B. Brewin and Mr. O. H. Keys; Representing Hawke's Bay Branch—Mr. N. L. Elder; Representing Nelson Institute—Dr. O. H. Askew; Representing Southland Branch—Dr. G. H. Uttley; Co-opted Member—Dr. J. T. Salmon; Representatives of the Fellows—Dr. F. G. Soper and Professor C. A. Cotton; Honorary Treasurer—Mr. S. Cory Wright; Observer and acting Representative Rotorua Philosophical Society—Dr. J. K. Dixon.

Apologies. The Governor-General was unable to be present as he was in the South Island and the Hon. Mr. Algie, Minister of the Department of Scientific and Industrial Research, was absent from Wellington. Dr. W. R. B. Oliver apologised for absence on account of the illness of his wife, Dr. Falla apologised for absence as he was leading an expedition to the outlying islands. Dr. Archey was still absent overseas as was Dr. Davies, representative of the Waikato Scientific Association.

The Late Professor H. W. Segar. The President paid a tribute to the late Professor Segar, whose death occurred in October. He said that Professor Segar had been the last of the original Fellows of the Royal Society of New Zealand and he had been a member of the Council for many years, being President during 1931-32. Dr. Miller referred to the academic attainments of Professor Segar. Members stood in respect to the memory of Professor Segar.

Presidential Remarks. Dr. Miller referred to the long Agenda in front of members and stated that the following additional items had been brought to his notice:—

- Rutherford Memorial Committee.
- Nuffield Bursars.
- Ball's Clearing
- Fuel and Power Report

Dr. Miller suggested that if time permitted these items be added to the Agenda. Agreed

Rotorua Philosophical Society An application from the Rotorua Philosophical Society seeking admission as a Member Body of the Royal Society was read. On the motion of Professor Richardson it was resolved—

“That the Rotorua Philosophical Society be admitted as a Member Body of the Royal Society of New Zealand if fulfilling all requirements as a Member Body.”

It was further resolved that Dr Dixon, who was acting as Observer for the Rotorua Philosophical Society be recognised as its acting representative so that he might take part in the meeting.

Annual Meeting Minutes. Printed copies of the Proceedings containing the minutes of the annual meeting held in May were distributed to members and laid on the table.

Interview with the Hon. Minister. Mr. Callaghan reported on the interview with the Hon. Mr. Algie at which the Society was represented by Dr. Oliver, Dr. Salmon and himself. Mr Callaghan outlined the subjects which were discussed with the Hon. Minister. namely the recent N.Z. Science Congress held in Auckland, giving such details as the number of participating bodies, the size of the meetings, the variety of subjects covered, the high calibre of the guest speakers (Dr. Oliphant, Dr Robertson, and Professor Odell) and the interest shown in the Congress and its meetings by the Auckland public. Brief mention was also made of some of the important matters dealt with in the Society's annual meeting and, generally, the Hon Minister was apprised of the Society's activities. Mr. Algie expressed his interest and thanked the members of the deputation for keeping him in touch with the Royal Society.

In speaking to Mr. Callaghan's report, Dr. Salmon said that the ground had been adequately covered. He considered the interview had been a successful one.

The report was received and the representatives were thanked

Congratulations. On the motion of Professor Richardson, seconded by Mr. Callaghan, it was resolved—

“That a letter of congratulation on his re-election to Parliament be sent to the Hon. Mr. Algie and the hope expressed that he would continue to hold the portfolio of Minister of Scientific and Industrial Research ”

Finance and Activities of the Royal Society of New Zealand Mr Callaghan, Convener of the Finance Sub-Committee, presented a report on “Five-Year Budget Proposals,” drawn up by the Sub-Committee consisting of Professor Richardson, Dr. Salmon and himself, as convener. It was agreed to consider each section of the report.

A—Sub-sections 1-7 A good deal of discussion ensued dealing with the standard of papers published in the Transactions, the increase in the number of contributors, the length of papers, the trend towards specialist publications as a medium for chemical and physical papers. The growth of scientific work in progress in the South-west Pacific and the obligation on the Royal Society to accept the results for publication, the improvement in format and appearance, and the rapidity of publication and the higher printing costs.

On the motion of Mr. Keys, seconded by Mr. Pycroft it was resolved—

“That this Council considers that the estimated increase of £400 per year in the budget for printing the Transactions is a reasonable estimate.”

B.—Bulletins: In the budget presented to the Hon. Minister when seeking an increase in the Society's grant, £500 was allocated annually for the publication of a Bulletin or in every third year for the Proceedings of the N.Z. Science Congress.

In view of increased printing costs and the larger circulation of the Bulletins and Proceedings agreed to by the Standing Committee, the sub-committee recommended that the amount of £500 be increased to £700.

After some discussion Professor Briggs moved, and Mr. Cory Wright seconded—

“ That for budget purposes we assess the amount of Bulletins at £500.”

On being put to the meeting the amendment was lost

Journals: The report recommended that in view of the possibility of some Specialist societies affiliating with the Royal Society of New Zealand, £150 should be set aside for the purpose of assisting these societies to publish their own small journals. After some discussion it was resolved that further consideration of this recommendation should be deferred until the question of the affiliation of these societies comes up later in the Agenda.

At a later stage in the meeting on the motion of Mr. Pycroft, seconded by Dr. Fleming, it was resolved—

“ That the amount of £150 recommended to be included in the budget to assist National Specialist Scientific societies affiliated to the Royal Society in publishing their own small journals or reports be approved.”

C.—Representation at Overseas Conferences.

The recommendations of the Sub-committee concerning representation at Overseas Congresses was discussed.

An amendment moved by Professor Allan, seconded by Dr Fleming—

“ That Clause 3 (That the Royal Society be given the responsibility for recommending to the Government three other representatives, apart from its own and those nominated by other Government Departments, interested in such Congresses) be deleted.”

The amendment was lost.

After further discussion on the motion of Professor Richardson, seconded by Dr. Salmon, it was resolved that Clause 3 be amended as follows—

“ That the Royal Society be given the responsibility for selecting three other scientists interested in such Congresses.”

Recommendations 4 and 5 were approved.

D.—Grants to Scientists.

The recommendation of the Sub-committee. “ That the Government be asked to subsidise the Hutton Fund on a £ for £ basis by an annual grant of £64 to the Society,” was amended as follows—

“ That the Society make provision in its budget to subsidise the Hutton Fund on a £ for £ basis.”

On the motion of Mr Allen, seconded by Professor Cumberland, it was resolved—

“ That the Government be asked to provide a research grants fund of £200.”

It was the intention of the meeting that the £ for £ subsidy to the Hutton Fund be drawn from the £200 grant and that the remainder be used to reinstate a fund for small grants unrestricted as to subjects.

E.—Fund for Translation of Foreign Language Papers:

After some discussion on the need for giving financial assistance for the translation of foreign papers and it being pointed out that translation services were available in Government Departments, it was resolved on the motion of Mr. Keys, seconded by Professor Richardson—

“That the D.S.I.R. be asked to undertake free translations if the requests for such are sponsored by the Royal Society of New Zealand.”

F—Scientific Surveys of Nature Reserves:

On the motion of Professor Richardson, seconded by Dr. Salmon, the recommendation made by the Sub-committee that £600 annually be made available for the purpose of scientific surveys of nature reserves was amended as follows—

“That £600 annually be made available for major research not necessarily restricted to nature reserves.”

G.—Administration.

H.—Capital Expenditure:

On the motion of Professor Allan, seconded by Dr. Soper, it was resolved that—

“Section H be approved together with the Summary as previously amended.”

Levy: On the motion of Dr. Salmon, seconded by Mr. Fenwick, it was resolved—

“That the question of a levy upon all members of the Royal Society through the Branches together with consideration of any necessary amendments to the Constitution be referred to the Standing Committee for investigation and recommendation to the Annual Meeting next May. The price of the Transactions to members to be also investigated and reported upon.”

On the motion of Mr. Callaghan, seconded by Dr. Dixon, the report of the Finance Sub-committee as amended was adopted.

It was resolved that the Sub-committee be congratulated on its report and assured of the Society's appreciation of the amount of detailed work involved.

The *Lunch Adjournment* was then taken, visiting members of the Council being the guests of Wellington members at luncheon at Kirkecaldie and Stans, Ltd.

Roll Call. The afternoon roll call was the same as for the morning.

4 a (2) Resolution by the Wellington Branch—

“That the parent body investigate the possibility of providing assistance to students proceeding to a Master's Degree.”

Professor Allan and Dr. Soper spoke against the resolution; Professor Richardson stated the reasons for the resolution, and after further discussion on being put to the meeting the resolution was lost.

(3) Resolution by the Nelson Philosophical Society—

“That the Nelson Philosophical Society keenly feels that the Royal Society being the centre for advancement of science in New Zealand is inadequately financed to maintain its minimum activities much less develop

them, and it is suggested that primary and secondary industrial interests be approached for assistance to augment the grant from the Government."

In speaking to the resolution, Dr. Askew stated that he was convinced that many firms and companies would support the Society if approached and the Society would thus be enabled to build up a capital fund which would give stability and a regular income. After a good deal of discussion on the merits of this proposal it was resolved to ask the opinion of the Member Bodies and to defer further consideration until it was ascertained if the Government would give sympathetic consideration to the increased budget requirements

4 c. Fellowship Nominations:

Mr. Keys spoke in support of the following resolution from the Otago Branch stating that the suggestions emanated from the Fellows resident in Otago—

"That the Council of the Royal Society of New Zealand be asked to consider the advisability of the nomination of a person for Fellowship remaining operative in the Fellowship Selection Committee of the Royal Society of New Zealand for a period of five years, the proposers having the right to add further items to the list of publications originally provided."

On the motion of Mr. Pycroft it was resolved—

"That the resolution be amended by reducing the period for which a nomination may stand from five to three years with the right of withdrawal at any time within that period."

5 c. Central Headquarters or Science House:

Dr. Askew spoke in support of the following resolution by the Nelson Philosophical Society—

"That we support an investigation into ways and means of obtaining a central headquarters for all scientific organisations on the lines of Burlington House in London and Science House in Sydney, or alternatively investigate the possibility of obtaining accommodation at the Dominion Museum."

There was a good deal of comment on the impracticability of the scheme which had been proposed at intervals during past years. Finally it was resolved on the motion of Mr. Pycroft to refer the matter to the Standing Committee for report.

4 b. (1) Rule 3, Section A, Royal Society of New Zealand.

The Wellington Branch reported on its inability to apply one third of its income to the maintenance of its Library. In speaking to the Wellington Branch report Mr. Allen stated that there was no apparent need to expand the Branch's Library; all that was desired was to maintain it at its present level. He moved and Professor Richardson seconded—

"That the Society's Rule, Section A, No. 3, be amended by adding the words 'or £90 per annum whichever shall be the less' after the words 'one third of its annual revenue.'"

In reply to a question Professor Richardson stated that a legal opinion was that the levy on the Transactions could not be held to be a contribution to the Royal Society of New Zealand.

Miss Brewin read an extract from a letter to the Otago Branch from the Council in November, 1941,

Finally on the motion of Dr. Salmon, seconded by Professor Briggs, it was resolved—

“ That for this year we agree to allow temporary relief to the Wellington Branch along the lines of the motion.”

Suggestions relating to the financial obligations of Member Bodies made by the Canterbury Branch were considered and referred to the Standing Committee.

Mr. Fenwick asked if Member Bodies could be given an opportunity of sending observers to the meeting of the Standing Committee when this matter is to be discussed. Agreed to.

4 d. Publication of Authors' Degrees:

In his report on the publication of Authors' degrees in the Transactions, Dr. Salmon concluded by suggesting the following proposal—

“ That the degrees and all letters of authors, together with their postal address, be omitted from the heading of the paper and that only the author's name appear there under the title, but that at the conclusion of the paper, the author's name, together with relevant qualifications and/or letters and full postal address, be inserted, and that it be made obligatory on authors in our 'Instructions to Authors' to supply these details.”

Opinion was divided on the desirability of inserting degrees and finally it was agreed to amend the proposal by allowing the insertion of degrees to be at the option of the author, but that it be obligatory for an author to supply an Institutional as well as a postal address the latter to be inserted at the conclusion of the paper.

4 e. Handbooks on Native Fauna and Flora:

The report of the Wellington Branch on the desirability of publishing handbooks on the Native Fauna and Flora was presented by Mr. Allen, and after some discussion the Standing Committee was asked to set up a committee to consider and report on the matter.

4 f. A N Z A.A.S. Meeting in Dunedin in 1957:

A letter from Sir Theodore Rigg stating that the Government had agreed to provide the finance necessary for the holding of the Congress in Dunedin was read. Dr. Miller reported that at the deputation which interviewed the Hon. Minister, mention had been made that the Society allotted £150 to each Science Congress and in view of the fact that the 1957 N.Z. Congress would give way to the A.N.Z.A.A.S. Meeting it had been suggested that the amount should be allocated to the A.N.Z.A.A.S. Meeting Committee in Dunedin. It was explained that there would be much preliminary expense incurred by the Organising Committee in the initial arrangements of the meeting. The Standing Committee had already sent to it £20 to meet incidental expenses so far entailed.

On the motion of Professor Richardson, seconded by Mr. Callaghan, it was resolved—

“ That the Society approves the allocation of £150 towards the 1957 meeting of the A.N.Z.A.A.S. and authorises the balance of the amount, namely, £130, to be made available when called upon.”

Dr. Soper stated that the First Circular regarding the meeting would be delayed until the Melbourne Meeting had been held.

5 a. (1) The Royal Society of New Zealand and other N.Z. Scientific Societies:
Mr. Callaghan presented the report of the Sub-committee set up to give consideration to the relationship of other New Zealand scientific societies to the Royal Society of New Zealand

A great deal of discussion ensued to which practically all members of the Council contributed.

An amendment "That the report be referred back to Member Bodies" was lost.

A further amendment "That the Council receive the report, thank the Sub-committee for compiling it, and reaffirm the motion of the Annual Meeting" was then put and lost.

Dr. Allan stated that some finality on the matter should be reached and that the report should be adopted. The Geologists' Association, recently formed, was waiting a decision as it desired to keep within the aegis of the Royal Society and not be established as a separate entity.

An amendment, moved by Dr. Soper, "That the report be referred to the Member Bodies and the various societies mentioned in the report," on being put to the meeting was lost

On the motion of Professor Richardson, seconded by Dr. Salmon, it was resolved—

"That this Council approves the principle of affiliation of National Scientific Societies to the Royal Society as set out in the Report."

The section of the Report 8 (a, b, c, d) dealing with the conditions of affiliation were then considered

8 (a) That membership of each Society be not less than twenty-five members was approved.

(b) That the Constitution and Rules of each Society be approved by the Council of the Royal Society of New Zealand was approved

(c) Consideration was given to the amount of the annual affiliation fee. It was resolved "That the affiliated National Specialised Scientific Societies pay an annual affiliation fee of £3 3s to the Royal Society for the next five years."

(d) That the National Specialist Scientific Society has been in existence for a period of at least three years. This clause was amended by addition of the words "except that where the majority of the members of an affiliating Society are members of the Royal Society of New Zealand the period be reduced to one year," and approved.

On the motion of Mr. Keys, seconded by Professor Richardson, it was resolved—

"That the Council of the Royal Society of New Zealand may by resolution admit to affiliation a national scientific society on application, provided that the amended conditions are complied with."

On the motion of Mr. Keys, seconded by Professor Briggs, it was resolved—

"That the Standing Committee be asked to codify rules and regulations and prepare a form of affiliation certificate in order to give effect to the decision."

On the motion of Mr Callaghan, seconded by Dr. Salmon, the report as amended was adopted,

On the motion of Mr. Callaghan it was resolved owing to the lateness of the meeting to defer consideration of the following items on the Agenda:—

5 b. Organisation of Scientific Publications in New Zealand.

6 c. The Report on National Collections.

It was resolved that the Report on National Collections be referred to Member Bodies and dealt with at the annual meeting in May.

6 a. Crayfish Research.

Professor Richardson spoke to a resolution of the Wellington Branch: "That the Government be urged to initiate a complete study of the crayfish and the crayfishing industry." He stated that in view of the heavy expanding export of crayfish, its economic importance to New Zealand and of the comparative lack of information and knowledge of the crayfish in these waters it was essential that immediate steps be taken to institute a complete investigation.

Miss Brewin asked leave to supplement the original motion by including rock oyster research.

She moved, Mr. Elder seconded, and it was carried—

"That it be pointed out to the Government that the Council of the Royal Society of New Zealand is concerned that crayfish and rock oyster research be undertaken in the very near future and recommends that funds be made available for such research."

At this stage Mr. Keys asked leave to bring forward a resolution—

"That this Council emphasise to the Government the importance of scientific study and further exploration in New Zealand Territory in the Antarctic and Island Territories and that the Standing Committee be instructed to take action accordingly."

Members did not consider the time opportune for this resolution to be considered. Finally on the motion of Professor Cumberland it was resolved that the resolution be referred to the Standing Committee and Member Bodies for report.

Nuffield Foundation. Dr. Miller reported that the N.Z. Advisory Committee was making recommendations to the Nuffield Foundation regarding appropriate visitors to New Zealand. It was considered by some members that the Royal Society of New Zealand should have the right of nominating. Dr. Soper stated that individual members of the Council could make nominations. Two or three suitable names were suggested.

The following remaining items on the Agenda were deferred until the annual meeting:—

6 b. Road Accident Research.

d. Administration of Nature Reserves.

Resolution by Wellington Branch on wild life.

Manuka Blight.

Noxious Agents.

Additional Items: —

Rutherford Memorial Committee.

Ball's Clearing.

Fuel and Power Report.

Travelling Expenses. It was resolved that travelling expenses for the meeting be paid.

Votes of Thanks. Votes of Thanks were accorded to the President for his chairmanship of the meeting; to the Sub-committees responsible for the reports; to the Agenda Sub-committee with Mr. K. R. Allen as Convener; to the College Council; to the Press, and to the Secretary, Miss Wood.

The meeting closed at 6.30 p m.

Confirmed.

DAVID MILLER, President.

December 6, 1954.

AGENDA

1. Apologies.
2. Minutes of the Annual Meeting in May for consideration only.
3. Report on Interview with the Honourable Minister.
4. Domestic Matters—
 - (a) Finance and activities, etc.:
 - (1) Report by Sub-committee.
 - (2) Resolution by Wellington Branch.
 - (3) Resolution by Nelson Philosophical Society.
 - (b) Rule regarding financial obligations of Member Bodies:
 - (1) Report and proposed amendment submitted by Wellington Branch
 - (2) Proposed amendment by Canterbury Branch.
 - (c) Method of Nominating Fellows—
Proposal by Otago Branch.
 - (d) Publications of Society:
Publication of Author's degrees, etc.
 - (e) Handbooks on Fauna and Flora:
Report by Wellington Branch.
 - (f) A.N.Z.A.A.S. Meeting, Dunedin, 1957:
Royal Society's contribution; use of accumulated Science Congress funds
5. The Organization of Science in New Zealand—
 - (a) Liaison with other Scientific Societies:
 - (1) Report by Sub-committee
 - (2) Statement by Wellington Branch
 - (3) Opinions of other Societies.
 - (4) Formation of Geologists' Association
 - (b) Organization of scientific publications in New Zealand:
Proposals by Canterbury Branch.
 - (c) Establishment of Central Headquarters:
Resolution by Nelson Philosophical Society.
6. Scientific Questions of National Importance—
 - (a) Crayfish Research:
Recommendation and statement by Wellington Branch
 - (b) Road Accident Research
Draft resolution and statement by Wellington Branch.
 - (c) Preservation of National Collections:
Report by Committee.
 - (d) Conservation and management of Fauna and Flora:
 - (1) Establishment of National Trust.
 - (2) Co-ordination of activities affecting wild-life. Draft resolution and statement by Wellington Branch.
7. General.

(NOTE: The Standing Committee recommends that items not already on the Agenda be considered only with the unanimous approval of the Council).

REPORT OF FINANCE SUB-COMMITTEE.

4 a (1)

Mr. F. R. Callaghan (Convener), Professor L. R. Richardson, Dr. J. T. Salmon.

FIVE YEAR BUDGET PROPOSALS.

The Finance Sub-Committee after considering the replies from Member Bodies (Auckland, Wellington, Canterbury, Otago and Nelson) has prepared the following Estimates for the years ending March 31, 1956-57-58-59-60.

A. PUBLICATION OF TRANSACTIONS.

Amounts recommended: 1955-56, £2,800, 1956-57, £3,200; 1957-58, £3,600; 1958-59, £4,000; 1959-60, £4,400.

These figures were arrived at after taking into consideration a wide range of factors, enumerated in the following paragraphs, which indicated that an annual progressive increase estimated at £400 would be required.

1. The number of papers published in the Transactions was greatly reduced at the start of the depression in 1930, and was maintained at this inadequate level because of printing difficulties during the war and by the post-war rise in printing costs so that over the past twenty years the Transactions did not keep pace with the expansion of science in this country. The inadequacy was partly off-set by the commencement of various publications at museums and elsewhere, but the total opportunity for publication of the scientific work of this country still falls short of the demand. The high standard of the Transactions, the excellent distribution to 500 libraries overseas and in this country make it the most desirable medium of publication for a wide range of research papers.

It must be recognised that over the past hundred years, much New Zealand research has appeared in British and Continental journals, and that this dispersal of the records of our researches has been disadvantageous to local scientific workers. In the past the Royal Society has not been able to accommodate most of that work in its Transactions but increasing financial support will enable a greater proportion of such work to be published here where it will be readily accessible.

2. Figures indicate that the size of the New Zealand scientific community is doubling every ten years. In the North Island 1.4 persons per 1,000 of the community are engaged in some form of scientific activity while the corresponding figure for Britain is 1.8 per 1,000 and is recognised as being inadequate for the national needs. In both countries there is no indication that the supply of scientists is nearing saturation.

3. A new feature is the increasing output of M.Sc. graduates, a proportion of whom are potential writers of scientific articles. In the past fourteen years 592 persons graduated M.Sc. and 12 Ph.D. degrees were granted. Those entering the scientific community of New Zealand indicate the extent to which it is growing. The output of papers from a Science Department of one University College during the past thirteen years has been 90 compared with 27 in the previous 33 years. This Department is now publishing on the average more than 20 papers yearly.

4. Modern standards of investigation compel scientists to conduct a more intensive research, which results in a more thorough type of paper, hence a tendency for the length and cost of each article to increase.

5. Publication in the Transactions is now again being sought by a wider range of contributors, e.g., articles are being offered from the South-west Pacific where, in recent years, there has been an increase in the amount of scientific work in progress. The Royal Society is accepting an obligation proper to New Zealand in publishing papers from scientists in this area.

6. The status of the Transactions has been enhanced with the raising of the standard of articles published, as well as by the improvement in format, speed of publication, and in general appearance, all of which has become possible in recent years. There is however still a need for better illustrations and for more frequent publication both of which involved increased costs.

7. Though the cost of paper and printing charges had shown signs of stabilising a slowly rising tendency still exists so that some allowance has still to be made for advancing printing costs.

8. Council has already approved the appointment of two Associate Editors whose honoraria will be £50 per annum.

B. OTHER PUBLICATIONS.

Bulletins: At present £500 has been tentatively set aside each year for the publication of one Bulletin annually or alternatively every third year for the Proceedings of the N.Z.

Science Congress Sainsbury's Bulletin on N.Z. Mosses now in the press is estimated to cost some £1.120 There is considerable doubt as to whether £500 annually will suffice for the publication of Bulletins offering.

An increase in this item to £700 is recommended

Journals. In view of the possibility of some six or seven Specialised Scientific Societies affiliating with the Royal Society and of these being assisted by the Society by small grants for publications a sum of £150 is recommended for this purpose

C. REPRESENTATION AT OVERSEAS CONFERENCES.

No specific provision is at present made to meet the expenses incurred by Royal Society representatives attending overseas conferences

It is recommended:

(1) That two overseas conferences be approved for representation, viz. A.N.Z.A.A.S. Conferences and Pacific Sciences Congresses

(2) That the Royal Society be represented at these two Conferences by two of its senior office-bearers.

(3) That the Royal Society be given the responsibility for recommending to the Government three other representatives, apart from its own and those nominated by other Government Departments, interested in such Congresses

(4) That a sum of £50 be set aside to enable travelling expenses to be paid to representatives of the Royal Society already abroad when asked to attend important scientific conferences being held in their vicinity.

(5) That the Royal Society establish a Congress Fund to which each year would be allocated a sum of £770 mentioned in (2) and (3) As both Congresses are not held annually this Fund will build up in years when neither Congress is held The amount of £770 is based on this assumption.

D. GRANTS TO SCIENTISTS

The Hutton Fund is the only source upon which the Society can draw for grants to promote approved investigation The income of the Hutton Fund is £64 annually.

It is recommended that the Government be asked to subsidise this Fund on a £ for £ basis by an annual grant of £64 to the Society.

E. FUND FOR TRANSLATION OF FOREIGN LANGUAGE PAPERS

Requests for assistance in this sphere are increasing and so it is recommended that £100 be set aside annually for this purpose and that steps be taken to ensure that copies of such translations be deposited in the Library and publicity given to the fact that such translations have been made

F. FUND FOR SCIENTIFIC SURVEYS OF NATURE RESERVATIONS ETC

While it is felt that such work should in general be done by Government Departments and other institutions and not by the Royal Society it was considered that occasions did arise when tasks should be undertaken through the Society itself. It is recommended that £600 annually be available for this purpose

G. ADMINISTRATION

At present Administration costs approximate £1,540 per annum. Salaries and honaria total £1.150. Two Council Meetings annually will increase travelling costs to £46. A grant of £120 is to be the New Zealand contribution to the permanent headquarters of the Pacific Science Council It is estimated that increases in the main items of Administration charges together with unforeseen new charges are likely to absorb an additional £100 per annum resulting in a progressive rise to some £2,000 during the next five years.

H. CAPITAL EXPENDITURE.

(1) Shelving for Library: This year some £1,100 will be required for steel shelving for the Library in its additional new room on the third floor of the Biology Building. It is recommended that £500 be provided each year for the next five years for installation of steel shelving

(2) Binding of Periodicals, etc. £50 is now allocated annually for binding periodicals received. This sum is very inadequate and the result is that a large arrears of binding exists and risks of loss attendant on unbound volumes is considerable The arrears amounts to thousands of items, while the accretions are some 2,000 items annually.

To keep abreast of the accretions would involve the binding each year of some 500 volumes at a cost of approximately £1 each

It must be realised that the Royal Society Library is a remarkable national asset, in receipt annually of a wider range and greater number of overseas periodicals than any other

library in the Dominion. Moreover, because of its early establishment, the Library possesses complete sets of many periodicals dating back to the middle of the nineteenth century which are available for reference to New Zealand scientists. Extensive use is made of the Library not only by Wellington users but through the inter-loan library system by University Colleges and Departmental libraries throughout New Zealand, in all approximately 600 borrowings being made annually to assist in the promotion of scientific work proceeding in the country. It is recommended that £500 annually be allocated for binding and that at an early date application be made for a special grant to cover arrears of binding.

SUMMARY.

	1955	1956	1957	1958	1959
	£	£	£	£	£
TRANSACTIONS	2,800	3,200	3,600	4,000	4,400
Associate Editors	50	50	50	50	50
BULLETINS	700	700	700	700	700
OTHER JOURNALS	150	150	150	150	150
REPRESENTATION AT OVERSEAS CONFERENCES	770	770	770	770	770
GRANTS TO SCIENTISTS:					
£ for £ subsidy on Hutton Fund	64	64	64	64	64
Translations	100	100	100	100	100
SCIENTIFIC SURVEYS	600	600	600	600	600
ADMINISTRATION COSTS	1,540	1,700	1,800	1,900	2,000
CAPITAL:					
Shelving	500	500	500	500	500
Binding	500	500	500	500	500
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	£7,774	£8,334	£8,834	£9,334	£9,834

The present income from Branches is approximately £430 per annum and consideration should be given to the suggestion of the Canterbury Branch that the Branches should make a levy of 5/- per capita payable to headquarters for administration purposes.

F. R. CALLAGHAN, *Convener*,

Finance Sub-Committee.

4.a (2)

RESOLUTION BY WELLINGTON BRANCH:

"That the parent body investigate the possibility of providing some assistance to students proceeding to a Master's degree."

4.a (3)

RESOLUTION BY NELSON PHILOSOPHICAL SOCIETY:

"That the Nelson Branch of the Royal Society of New Zealand keenly feels that the Royal Society, being the centre for advancement of Science in New Zealand, is inadequately financed to maintain its minimum activities much less develop them, and it is suggested that primary and secondary industrial interests be approached for assistance to augment the grant from the Government."

FELLOWSHIP NOMINATION:

4.c

The Otago Branch forwarded the following resolution:—

"That the Council of the Royal Society of New Zealand be asked to consider the advisability of the nomination of a person for Fellowship remaining operative in the Fellowship Selection Committee of the Royal Society of New Zealand for a period of five years, the proposers having the right to add further items to the list of publications originally provided."

It added "Although this Branch's recommendations on Fellowship nomination were not adopted at the recent Annual Meeting of the Council, it was felt that there was considerable merit in Clause 5 of the memorandum submitted, and the above motion was accordingly passed to bring Clause 5 forward as a separate recommendation. It should be borne in mind that the recommendations made by the Branch in this connection were originated by a sub-committee of Fellows, and that the Branch merely passed on the suggestions,"

CENTRAL HEADQUARTERS OR SCIENCE HOUSE

5.c

RESOLUTION BY NELSON PHILOSOPHICAL SOCIETY:

"That we support an investigation into ways and means of obtaining a central headquarters for all scientific organisations on the lines of Burlington House in London and Science House in Sydney, or alternatively investigate the possibility of obtaining accommodation at the Dominion Museum."

RULE 3 SECTION A:

4 b (1)

The Wellington Branch suggests that Rule 3 Section A regarding the by-laws of Member Bodies and their financial obligations should be amended and it submits the following case for the consideration of the Council:—

Since 1942 the Wellington Branch Library has been maintained by an average annual expenditure of between £80 and £90. Library policy has recently been carefully considered by a committee which has reached the following conclusions.—

1. No reason can be seen for library expenditure to be increased beyond the amount necessary for the upkeep of the present holdings and for the continuance of periodicals already being taken. This amount spent on the library shall discharge in full the liability under Section A No. 3 of the Rules of the Royal Society of New Zealand.
2. No purpose can be seen for enlarging the scope of the library. An increase in the number of periodicals subscribed to seems unnecessary in view of the adequate library facilities available elsewhere to members.
3. The present strength and importance of the library lies very largely in the complete or near complete runs of certain periodicals.

If one third of the annual income of the Branch is to be spent on the library, approximately £170 would be involved in 1954. This would be £80 more than the average expenditure for previous years and in view of the committee's findings would be an additional unnecessary expenditure. In view of the fact that the Branch has had to raise subscriptions to meet rising costs and that the Branch Council is faced with effecting economies that would affect the efficient working of the Branch, it would appear that such an additional unwarranted expenditure on the library should be avoided. Under the present rules of the Royal Society this is not possible. The Wellington Branch therefore requests the Parent Body to consider taking steps to amend the Rules in such a way that the expenditure of a fixed proportion of the annual income on the library is not mandatory.

Suggested amendment to the Rules of the Royal Society of New Zealand Section A No. 3. After the words "than one-third of its annual revenue" insert "or £90 per annum whichever shall be the less."

4.b (2)

The Canterbury Branch suggests that the above Rule be modified so as to provide that the TOTAL CONTRIBUTION to the library or institute and the contribution to the Royal Society together should not be less than one-third of the annual revenue of the Member Body.

The Branch also considered that the words "Annual revenue" should refer to subscriptions only. In many cases Branches have Trust Funds the interest from which is earmarked for specific purposes, and is not available for the general purposes of the Branch.

PUBLICATION OF AUTHOR'S DEGREES:

4.d

The following report by the Editor is recommended to the Council by the Standing Committee —

"In connection with the report which the Standing Committee asked me to make regarding the insertion of degrees and letters after authors' names in the headings to papers in the Transactions, I would now advise as follows:—

"The practice of inserting degrees and/or letters is common in nearly all English journals including the Royal Society of Edinburgh, the publications of Cambridge University, etc.; the Royal Society of London uses the title F.Z.S. when a paper is communicated by a Fellow, but apparently not when the paper is written by a Fellow. There is no uniformity. The papers appear sometimes with, sometimes without, the insertion of degrees. Some Australian journals insert degrees, and the earlier issues of the Transactions always inserted them. Continental journals also insert them, frequently much more lavishly than is done in England, but again there is no uniformity. American journals on the other hand do not insert them. It would seem therefore to me that the only way to attain uniformity is to adopt the policy of never inserting these degrees after the author's name.

"This might introduce some difficulty in connection with titled persons such as Sir Guy Marshall who are occasionally publishers in our Transactions.

"Personally I find the insertion of degrees is often useful, and would not support the idea of their complete deletion. Furthermore, while the argument that the insertion of degrees bears no relationship to the scientific value of the paper, the insertion of degrees in a paper does in my opinion give some standing to a journal in that it conveys that the authors contained in a Part have a professional standing in the scientific world which enhances the reputation of a journal

"On the other hand I would suggest that the Standing Committee consider the following proposal: That the degrees and all letters of authors, together with their postal address, be omitted from the heading of the paper, and that only the author's name appear there under the title, but that at the conclusion of the paper the author's name, together with relevant qualifications and/or letters, and full postal address, be inserted; and that it be made obligatory on authors in our 'Instruction to Authors' to supply these details.

"J. T. SALMON, *Editor.*"

HANDBOOKS ON NATIVE FLORA AND FAUNA:

4e

In support of its previous resolution that the Royal Society should undertake the publication of Handbooks on Native Flora and Fauna the Wellington Branch has submitted the following report:—

Handbooks have been taken to be works that comprehensively cover a group of plants or animals at such a level that an intelligent adult can use them for identification purposes. Examples in mind have been the works on the Fauna and Flora of South Australia produced by the British Science Guild, e.g., *The Building of Australia*, *Molluscs*, *Crustacea*, *Reptiles and Amphibia*, etc.

The present rate of production of Handbooks of a sufficiently high standard does not appear to be adequate. The following ways in which their production might be stimulated have been suggested:—

1. By making a survey of Handbooks available, deciding on their adequacy and listing the gaps in Handbook coverage. There is at the moment a great need for co-ordination in this field and an even greater need to ensure that the works that are published are of a sufficiently high standard.
2. By making available small grants from Research or other funds to assist workers in actual preparation, e.g., a grant of £20 to a worker on Fungi, to assist in the preparation of plates for a Handbook
3. By encouraging the authors of Bulletins published by the Royal Society to prepare Handbooks based on Bulletin material. The same plates would often be used, etc., although the Handbook would eventually be published elsewhere.
4. By bringing to the notice of the Government the need for Handbook production and seeking Government aid in the production of Handbooks when other sources have failed.

A.N.Z.A.A.S. 1957 MEETING.

4f

Extract from Minutes of Standing Committee Meeting, August 27, 1954:—

In regard to the proposal that the A.N.Z.A.A.S. Meeting should be held in New Zealand in 1957, Dr. Miller reported that the Hon. Minister had received a deputation and its request for £4,500 sympathetically. It was felt that this amount from the Government together with amounts from other sources would be sufficient to cover the cost. As the Council had decided to forego its 1957 Science Congress in favour of the A.N.Z.A.A.S. Meeting the amount of £150 allotted by the Society for N.Z. Science Congresses could be contributed to the cost of the A.N.Z.A.A.S. Meeting.

Some discussion on this point arose and it was decided to defer a decision until a later meeting.

Dr. Miller pointed out that the Otago Committee and Secretariat would welcome some assistance in its immediate preliminary organizing activities. It was resolved that in order to facilitate the preliminary organization of the 1957 A.N.Z.A.A.S. Meeting in Dunedin the Royal Society make a grant of £20 to that local committee.

APPLICATION FROM ROTORUA PHILOSOPHICAL SOCIETY FOR AFFILIATION AS A MEMBER BODY.

4g

On October 9, 1954, the Rotorua Philosophical Society made application as follows:—

At the close of our first year of existence the Committee wishes this Society to become a Branch of the Royal Society of New Zealand. Unless therefore there is further to place

before your Council I hereby make application on this Society's behalf for affiliation with the Royal Society. In any case we ask for further guidance in this matter . . .

'SELWYN A. COOPER, *Hon. Secretary.*'

5.a (1)

THE ROYAL SOCIETY OF NEW ZEALAND AND OTHER SCIENTIFIC SOCIETIES:

1. The Act and Rules of the Royal Society of New Zealand provide for the recognition of Member Bodies on a location or geographical basis and not on a basis of scientific groups.

Clause 3 of the Royal Society of New Zealand Act, 1933, deals with this matter and it is considered that the terms of this clause be adhered to. It is felt that organization along lines of an aggregation of scientific disciplines is not in the best interest of the Royal Society.

2. Twenty-four bodies of varying scientific content were listed as participating in the Eighth New Zealand Science Congress and at least twenty-two attended the Special Meeting called at the end of the Congress.

3. These bodies may be classified into approximately three groups:—

(1) PROFESSIONAL SOCIETIES:

N.Z. Institute of Architects, British Medical Association, N.Z. Institute of Chemistry, Royal Institute of Chemistry, N.Z. Electronic Institute, N.Z. Institute of Engineers, N.Z. Institute of Foresters, Royal Sanitary Institute, N.Z. Veterinary Association, N.Z. Association of Scientists.

(2) SEMI-SCIENTIFIC SOCIETIES.

N.Z. Society of Animal Production, N.Z. Grassland Association, N.Z. Geographical Society, Royal N.Z. Institute of Horticulture, Polynesian Society, British Psychological Society.

(3) SPECIALISED SCIENTIFIC SOCIETIES.

N.Z. Ecological Society, Royal Astronomical Society, Entomological Society of New Zealand, N.Z. Genetical Society, Ornithological Society of N.Z., N.Z. Society of Soil Science, N.Z. Statistical Association.

4. These three groups have recognised the Royal Society as the senior scientific society of New Zealand and look to it for leadership on occasions such as Science Congresses, visits of Royalty and of eminent overseas scientists. They have co-operated with the Royal Society when occasion arose.

5. The Professional Societies are for the most part long established and have constitutions and rules which would require amendment if affiliation with the Royal Society were proposed. They are proud of their autonomy and would have nothing to gain by affiliation, which at most would only be a token of recognition of the integration of all N.Z. Scientific Societies.

The Semi-Scientific Societies are in much the same position.

6. It is recommended therefore that the status quo between the Royal Society and these two groups be maintained on the existing basis of collaboration and consultation on all appropriate occasions.

7. The Specialised Scientific Societies recently formed appear to have a much closer interest with the Royal Society, and an early decision on an appropriate relationship is most desirable. The Royal Society Act makes no provision for the Affiliation to the Society of other scientific societies; the Act specifically refers to Member Bodies only. Clause 11 of the Act defines the powers of the Council to make Rules, and until the Act is amended affiliation might be dealt with under the provisions of paragraph 11h, viz., "Such other matters as may be necessary for duly carrying out the work of the Society or the Council."

8. It is recommended that the position be dealt with along the lines as set out in the following paragraphs:—

The Royal Society welcomes the development of Specialised Scientific Societies recognising in this an evolutionary move in accordance with the progress of science. The Society is also desirous of maintaining simultaneously a sound integration of science, believing this to be necessary for the welfare and best interest of New Zealand science as a whole.

To achieve these objectives the Royal Society is prepared to arrange for the affiliation to it of Specialised Scientific Societies on the following conditions:—

- (a) That membership of each Society be not less than 25 members.
- (b) That the Constitution and Rules of each Society be approved by the Council of the Royal Society of New Zealand.
- (c) That the affiliated Specialised Societies pay an annual affiliation fee of to the Royal Society.

- (d) That the Specialised Scientific Society has been in existence for a period of at least three years.

The Council of the Royal Society may from funds available make grants to affiliated societies for their legitimate purposes.

9. The amount of the affiliation fee is regarded as being a token sum and a decision as to what it should be has been left open.

It is felt that a Specialised Scientific Society should give proof of its being permanently established and hence a period of time is suggested as an indication of such permanence.

10. Adoption of the above proposals will mean that a way can be provided immediately for affiliation of Scientific Bodies who are seeking some association with the Royal Society. No change in the Act is involved, the principle of organization on which the Royal Society is based is preserved, and the affiliated Society is both helped and left with its own autonomy.

11. This paper makes two recommendations.—

- (1) That the status quo be maintained and developed in the case of Professional and Semi-Scientific Societies (paragraph 6).
- (2) That a prescribed scheme of affiliation be adopted for Specialised Scientific Societies (paragraph 8).

F. R. CALLAGHAN. *Convener Sub-Committee.*

D. MILLER.

W. R. B. OLIVER.

R. A. FALLA.

J. T. SALMON.

Statement by Wellington Branch.

5.a (2)

"It has taken the Royal Society of New Zealand about 100 years of development to achieve its present standing in the community and recognition by the Government of the day. In many respects that has been a long and upward fight in which many outstanding figures in New Zealand science have played a leading and honourable part. The recent interest in some form of liaison between other scientific societies and the Royal Society arises from the comparatively recent development of national specialised societies such as for example, the Entomological Society, the Statistical Association, etc.

"The committee of the Wellington Branch considers that this growth of specialised societies on a national basis is a natural development of scientific growth in a young community such as we have in New Zealand. One of the proper functions of the Royal Society should be to encourage the growth of such societies, and the Royal Society has lately been concerned as to ways and means of doing this. Consideration has been given by the parent body to possible modifications of its constitution to achieve this end. Your committee, however, is of the opinion that the situation is not yet sufficiently stable to indicate clearly what type of organization, if any, would be the most suitable, and that for the present no steps should therefore be taken to establish any formal co-ordination between the parent body of the Royal Society and the national specialised scientific societies. Your committee does however want to emphasise that the Royal Society not only through the parent body but also through its Branches should make every effort to seek the co-operation of these specialised societies by informal consultations whenever any question of national import arises concerning any specialised discipline represented by such a Society. The Royal Society should, by virtue of its seniority, take the lead in these matters.

"This committee feels that there is no need for a separate federation of scientific societies at the present time since the Royal Society has performed the major functions of such a federation over recent years and should continue to do so to a more marked degree in the future. Any such federation, if it were formed, must itself take a considerable time, possibly twenty years, to attain either public or official recognition unless by some means it could usurp the present position and functions of the Royal Society."

ATTITUDE OF N.Z. ENTOMOLOGICAL SOCIETY.

5.a (3)

The Entomological Society considers that some form of affiliation with the Royal Society is desirable for the sake of integration, but does not desire representation on the Council of the Royal Society. It considers that on specific matters the Entomological Society could be consulted as required.

The decision to affiliate with the Royal Society would have to be made final by Special General Meeting of the Entomological Society and would depend, of course, on the conditions laid down by the Royal Society. In this connection it should be pointed out that the

Entomological Society is not a wealthy Society, and although it is prepared to meet a reasonable fee for affiliation with the Royal Society it could not be expected to meet affiliation fees in the nature of capitation grants such as is done with the member bodies of the Royal Society.

ATTITUDE OF ECOLOGICAL SOCIETY.

The New Zealand Ecological Society favours a federation in some sort of a council of New Zealand scientific societies, which would consist of representatives of each scientific society. This council would meet regularly and consider remits brought forward by representatives of member societies.

ATTITUDE OF N.A. INSTITUTION OF ENGINEERS.

5 a (3)

The Council of the Institution has concluded that, at any rate at the present time, there would be no advantage to the Institution in any closer link with the Royal Society than now exists. Therefore the Council does not support the earlier suggestion that it participate in a federal organisation in which the Royal Society would be the senior body.

N.Z. GEOLOGISTS' ASSOCIATION.

5.a (3)

During the Science Congress in Auckland a meeting of geologists was held and a large majority favoured the formation of some sort of association of geologists in New Zealand. The majority also wished that any organization formed should remain a part of or be closely associated with the Royal Society. A committee was set up to make the initial steps in setting up such an association and after careful consideration it decided first to approach the Royal Society for advice on the possibility of organising geologists within the Society rather than forming a separate body.

Mr. B. W. Collins writing on behalf of the Committee asks—

5.a (4)

(1) Would the Council of the Royal Society approve the formation of a Geological Section or branch consisting of geologists (and others interested in the earth sciences) living in all parts of New Zealand, and would such a section be admitted as a Member Body on the same basis and with the same rights as one of the existing member bodies? It is known that there is a fairly widespread feeling among geologists that the time may be ripe for the reorganisation of the Royal Society along the lines of the different branches of science rather than by geographical areas.

By such a method of organization, it is suggested all New Zealand scientists could be retained within one society, rather than, as appears to be the tendency at present, being split up into a large number of independent groups

(2) Would the Council of the Royal Society prefer to see the early establishment of a separate Geological Society, leaving the question of its relations with the Royal Society to be settled in the future? It appears that there is a general desire among other smaller bodies of specialists (Ecologists, Statisticians, Entomologists, etc.) for some form of federation or affiliation under the aegis of the Royal Society. Geologists also are anxious that the Royal Society should continue to hold the premier place among New Zealand scientific organisations.

(3) Does the Council of the Royal Society consider that any other course is more desirable? Geologists are, we think, concerned mainly about two points—

(a) They want a New Zealand-wide organization to speak and act for and advance the interests of their profession—in particular to organise if possible an annual meeting or conference of geologists.

(b) They wish to do nothing that might weaken rather than strengthen the Royal Society, and hence have decided not to form themselves into a separate body without the approval of the Society.

ORGANISATION OF SCIENTIFIC PUBLICATIONS IN NEW ZEALAND: PROPOSALS BY CANTERBURY BRANCH.

5.b

A suggestion was made by the Canterbury Branch of the Royal Society of New Zealand (prior to the Auckland Science Congress this year) that one of the Sections of the New Zealand Journal of Science and Technology (J.S.T.), either (a) Agriculture, or (b) General, might be made available to members of the Royal Society in place of the Transactions of the Royal Society (T.R.S.) The present T.R.S. offer little but Botany, Zoology, and Geology, and are negligible interest to Physicists, Engineers, Chemists, Mathematicians, etc., who constitute a not inconsiderable proportion of the Royal Society membership.

The situation has now changed, since it is understood that the Royal Society has secured more finance for publication and is keen not only to publish more rapidly, but also to accept articles from Physicists, Mathematicians, etc.

It is necessary to look very closely at this trend, which may be undesirable.

First, New Zealand is too small for any parochial atmosphere to prevail such as merely publishing a few physical science papers in order to increase New Zealand interest in the Royal Society and its Transactions.

Again, if such papers are accepted, then both the J.S.T. (Section B) and the T.R.S. will cover a very similar field and both will contain many papers of no interest to their readers.

The articles appearing in the J.S.T. have been analysed as follows:—

	Chem.	Physics	Geophys. & Meteor- Astronomy	Meteor- ology	Maths. & Stats.	Engin. & Technology	Geol.	Natural Science & Insecticide Studies
1949-50	—	—	1	1	2	8	7	5
1950-51	1	1	1	2	—	9	11	8
1951-52	2	1	2	—	3	4	13	14
1952-53	—	—	1	—	—	5	9	19
1953-54	1	1	6	1	1	5	22	10
Total	4	3	11	4	6	31	62	56
%	2.2	1.7	6.2	2.2	3.4	17.5	35.0	31.6

15.7

From this it appears that the physical sciences publish insufficiently in New Zealand to warrant a journal of their own at present. (This lack of support may to some slight extent be due to random content of the J.S.T.)

Other aspects controlling the Journal (in or beyond New Zealand) to which authors submit their articles are:—

(i) *The speed of publication.* The J.S.T. appears good in this respect, especially when compared with the prevailing delays in overseas publication. Even with improved speed, the T.R.S. is unlikely to equal the J.S.T.

(ii) *The homogeneity of the articles, and hence the size of the reading audience overseas.* The J.S.T. is bad in this respect. The T.R.S. is quite good for the natural sciences, and should not be diluted.

(iii) *The quality of the publication.* The J.S.T. loses slightly by accepting snippets, which should be "Letters." Otherwise there seems little to choose between the T.R.S. and the J.S.T.

(iv) *The use of the Journals by overseas agencies.* The J.S.T. is certainly examined for physics articles, etc., by several standard publications. It is very doubtful whether an occasional physics, etc., article in the T.R.S. would be found. This is of sufficient importance alone to deter authors from submitting physics and allied articles to the T.R.S.

It is suggested therefore that definite consideration be given to the following:—

- (a) The T.R.S. become the standard New Zealand publication for the natural sciences.
- (b) The J.S.T. become the standard New Zealand publication for the physical sciences. This would involve the immediate loss of no more than three or four papers per annum from the T.R.S. and this loss would be more than made up by natural science articles which should not be accepted by the J.S.T.
- Insecticide research could probably be grouped with technology, and so remain in the J.S.T.
- Geology appears impartially in both journals. It might be worth considering the long-term future of such articles.
- If "1" is agreed to, then it would be well worth while considering the Canterbury Branch's original suggestion that Royal Society members be permitted a choice of receiving the T.R.S. or Sections A or B of the J.S.T. The position is less clear cut if the T.R.S. insists on publishing (and can get) the scattered few physical science articles, but the suggestion is still worth consideration as a means of increasing support for the Royal Society.

CRAYFISH RESEARCH:

6.a

Recommendation and statement by the Wellington Branch.

"That the Government be urged to initiate a complete study of the crayfish and the crayfishing industry."

The crayfish industry has expanded fourfold in the past six years and can reasonably be expected to increase further in the near future. Landings have risen from 18,052 cwt. in 1947 to 81,725 cwt. in 1953, and the landed value has increased from £36,612 in 1947 to £473,515 last year.

Eighty-three per cent. of the catch was exported and this had an export value of £695,063. This figure exceeds the value of landed wet fish in 1942-43 and the landed value of crayfish last year was about one quarter the estimated total value of the New Zealand fishing industry.

Knowledge of the crayfish in these waters is restricted to the statistics published in the Annual Reports of the Marine Department and to a single research conducted in the Wellington area in the years 1947-48 (Zoology Publications from Victoria University College, No. 7). The latter was a pilot study and the published account is the only record of the population make-up, of moulting, migration, reproduction and other behaviour of our crayfish before intensive fishing was commenced. There is no equivalent detailed knowledge of the crayfish as it occurs in other areas, and such knowledge will have great fundamental value in guiding the development and safeguarding the future of the industry.

Elsewhere research in commercial fisheries has rarely been developed from the outset of the fishery and the lack of information on the unmodified population has been one of the commonest difficulties hampering the construction of an overall picture of the industry. There are still many untouched crayfish populations which are at present available for study, and which in a few years' time will have been subjected to fishing pressures.

It is accordingly urged that immediate steps be taken to institute a complete investigation of the crayfish in New Zealand waters.

ROAD ACCIDENT RESEARCH:

6.b

Resolution by Wellington Branch and Explanatory Statement.—

“That the Royal Society, having regard to the losses of life, health, and property caused by road accidents in New Zealand, urges the Government to foster research on the fundamental causes of such accidents. While fully recognising the value of the studies of the nature and circumstances of actual accidents which are now undertaken by the Transport Department, it believes that fundamental studies by properly qualified personnel of those factors, including the psychological one, which give rise to accidents, would assist materially in the reduction of the accident rate.”

Explanatory Note: Road accidents last year caused 300 deaths and 7,600 injuries. Attempts to reduce this toll are in the hands of the Transport Department. This undertakes detailed analysis of accidents which actually occur and uses these results in planning its campaign, although it appears to rely largely on trial and error methods. It consults, from time to time, a Road Safety Council which is representative of a wide range of interests, but on which medicine is the only branch of science represented. There seems a need for local research on fundamental problems, and not on actual accidents, possibly on lines followed by the Safety and Traffic Sections of the Road Research Laboratory in England.

ADMINISTRATION OF NATURE RESERVES:

6 d (1)

Acts of Parliament that cover the protection of areas of scientific and historical interest, and of native plants and animals are the following:—

ACTS	CONTROLLING	ADMINISTERING BODY
National Parks Act, 1952	National Parks	National Parks Authority
Reserves and Domains Act, 1953	Scenic Reserves	Lands and Survey Department
Historic Places Act, 1954	Historic Sites	Historic Places Trust
Forest Act, 1949	State Forest Reserves	State Forest Service
Marine (Fisheries Act)	Lighthouse Reserves, Faunistic Reserves, Seals	Marine Department
Native Plants Protection Act, 1934	Native Plants	Land and Survey Department
Wildlife Act, 1953	Native Birds and Other Animals, Wildlife Refuges	Internal Affairs Department

None of these Acts provides for a trust to administer nature reserves similar to the trust set up by the Historic Places Act. The necessity for a Nature Reserve Trust arises from the need to have a responsible body with adequate funds to own in perpetuity and to take care of properties and moneys which may be transferred to it for that purpose.

Nature Reserves which it is desirable to have under the care of a National Trust include forested areas, special plant and animal habitats, mountainous areas, rock formations, thermal springs, limestone caves, waterfalls and lakes, coastal features, fossiliferous localities. Such an area as White Island, now a private scenic reserve, would ultimately better be placed under a trust so that the Island would for all time be preserved for its scientific interest.

It is known that certain areas of bush privately owned would be handed over by their owners to a National Trust if one were to be established for the purpose of caring for nature reserves. Some persons would make gifts or bequests of money for the upkeep of such reserves. At present they cannot do this for scenic reserves.

It might be desirable for some of the present scenic reserves now being administered by the Lands and Survey Department, especially those of scientific interest, to be transferred to the proposed trust which would constitute an Advisory Body on policy.

The members of the Trust might be appointed by the following organisations:—

Government Departments (Lands and Survey, State Forest Service).

Royal Society of New Zealand (say two members).

Forest and Bird Protection Society (say two members).

The administering Government Department should be the Lands and Survey Department.

Finance for administering the reserves under the Trust could come from Government, public subscriptions, bequests and gifts, donors of properties.

W. R. B. OLIVER, *Convener*,
Conservation Committee.

RESOLUTION SUBMITTED BY WELLINGTON BRANCH:

6.d (2)

"That the Royal Society, recognising the need for a wider and more balanced approach to the problems arising from the diverse relationships between man and wild animals of all kinds, urges the Government to call a conference of all organisations, governmental and otherwise, which are concerned with any aspect of these problems, for the purpose of considering what permanent machinery should be set up to ensure that there is adequate prior consideration of any conflicting interests before any major changes are made in methods used for the control or management of wildlife in its widest sense."

EXPLANATORY NOTE.

Actions undertaken for the control or management of wild animals of all kinds often have effects on human interests far beyond those which led to the action. This may be due to:—

- (1) The methods used may have direct effects on other organisms which affect man.
- (2) Substantial modification of the population of the animal originally aimed at may affect other organisms.
- (3) The animal originally concerned may affect a variety of human interests.

Action on any significant scale is generally undertaken by organisations concerned with a single point of view, and without adequate consideration of conflicting interests which may be involved. Many conflicts of interest are evident in methods already used in New Zealand and more are likely to arise as further techniques are employed, including those already in use overseas. Existing conflicts include:—

1. The present controversy regarding manuka blight between agricultural interests on one hand and forestry and soil conservation interests on the other.
2. The large scale aerial poisoning of rabbits (3,000 tons of poison-bait were dropped last year) may be destroying ground-living birds on a scale which could be avoided by modification of techniques.
3. The Rabbit Nuisance Act discourages the use of stoats, polecats, etc., by dealing in their skins, while statutory bodies under another Act, the Wildlife Act, pay bounties (last year over £800) for their destruction.

Nearly all the bodies concerned with wildlife problems exist to further one, or at most, a few objects. Action to obtain an improvement in the system is only likely to be initiated by a body capable of viewing objectively the whole field of interests. This approach seems in accord with the objects and traditions of the Royal Society.

RESOLUTIONS FROM THE NATURE PROTECTION COUNCIL OF NEW ZEALAND:

MANUKA BLIGHT.

6.d (3)

At the instance of the Executive of the Nature Protection Council a meeting of its Standing Committee was held and the following resolutions adopted:—

"That the Government be urged to undertake an investigation into the effects of manuka blight on other vegetation, and into the results of its spread on manuka."

The Standing Committee of the Nature Protection Council agreed that this resolution should be forwarded to the Prime Minister with the request that such an investigation be entrusted to a scientific body which would be unaffected by the results of manuka destruction and whose approach to the investigations would be entirely objective. This has been done.

Note: The Standing Committee of the Royal Society understands that the Nature Protection Council has received in reply a letter from the Hon. Minister of Scientific and Industrial Research and it hopes that copies of the letter will be available at the November Meeting of the Council.

NOXIOUS AGENTS GENERALLY.

"That this Standing Committee (of the Nature Protection Council) recommends to the Constituent Bodies of the Nature Protection Council of New Zealand that in view of the widespread effects of noxious agents deliberately spread for the control of wild life, the Government be urged to set up an advisory body directly responsible to the Prime Minister, to which proposals for the use of such noxious agents must be referred."

A further resolution concerning the machinery measures to be taken in connection with the above matters was passed by the Nature Protection Council Standing Committee as follows:—

"That where the Constituent Bodies prefer to make their own representations in the above matters they be asked to do so and inform the Nature Protection Council of their actions, or otherwise to signify their assent to the Standing Committee making such representations on their behalf."

It was suggested that two months be regarded as a reasonable period within which Constituent Bodies could take action.

The resolutions above were submitted on August 27, 1954.