Registered at P.O. Headquarters, Wellington, as a magazine.

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TREASURER: J.C. Innes, Forest Research Institute, Rotorua.

The New Zealand Ecological Society was formed in 1951 to promote the study of all aspects of ecology. Membership is open to any person interested in ecology. There are four classes of members who pay:

(1) $25 for ordinary members,
(2) $15 for student members,
(3) $5 for introductory members, and
(4) $5 for retired members.

Ordinary and student members receive the N.Z. Journal of Ecology plus the quarterly newsletter. Introductory and retired members receive only the newsletter.

NEWSLETTER TEAM

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NEWSLETTER: The editors welcome correspondence, interim reports of current research, news items, and other articles. Unless specifically indicated otherwise, views expressed in this Newsletter are not necessarily those of the Ecological Society or its Council.

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(items marked with a * may require some action on your part).

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EDITORIAL

1985 is going to be a year of changes for ecologists - two of them feature in this Newsletter.

The Labour Government has a strong policy on environmental matters - proposing a new Ministry for the Environment with changes to planning and nature conservation administration (and management) in New Zealand. The first step in implementing this was to hold a Forum in Wellington at which all interested people could speak, and contribute the consensus. Within the year the Government intends to carry out the changes sought by their policy. These changes will reach into present Government Departments and advisory councils with considerable impact. Judith Roper-Lindsay was invited to the Forum and reports on the possible outcome in this Newsletter.

Close to "home" are developments in the Ecological Society Newsletter. There has been a growing feeling that the Newsletter is failing to provide a useful role in communicating to and among members. While the editorial team has already instigated some changes - most obvious being a new appearance to the cover - we are keen to hear from members about what they see as the purpose of the newsletter, and its most useful content. The questionnaire at the centre of this issue is important - please fill it in now, pull it out, and return it straight away. That would be a first step in improving communications!

Judith Roper-Lindsay

SOCIETY NEWS

CHANGES OF ADDRESS:
(at 10/2/85)

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NOTES FROM THE COUNCIL

1. Conference planning

Elsewhere in this issue you will find information on Conference 1985. Planning is already in hand for the 1986 Conference which will be held at Lincoln College. The theme then will be a wide ranging examination of the country's vegetation history, the impact of alien mammals, and erosion. The theme bears the title of "Moas, mammals and climate in the ecological history of New Zealand". We hope that people from many specialities will participate (botanists, zoologists, hydrologists, geomorphologists, even archaeologists).

Initial plans are also being laid for Conference 87. The proposal is to celebrate the centenary of the Tongariro National Park. A venue is being looked at (sorry folks, it won't be the Chateau), and we are now open for any ideas for topics, speakers, trips and special features.

2. The Council has established some criteria for nomination to honorary life membership. They are:

(a) Service to the Society
   . generally: as a Conference organiser, speaker, writer of comments/reports/submissions.
   . Council: terms of service, subcommittee contributions
   . Officer: Editor, Hon Sec, Treasurer, Vice Pres, Pres

(b) Contribution to Ecology
Making a distinguished and significant contribution to the discipline (and its application) whether in research, teaching, or administration.

Nominations have to be made to the Council and be accompanied by a case for the candidate. The Council then takes the nomination to the AGM. Remember, it's no good making a nomination at an AGM, so if you wish to nominate think about it at least 6 months ahead to allow time for consideration by the Council. All such nominations to the Council are of course confidential.

3. The nuclear statement

We understand that some members didn't get a copy. Please let the Hon Sec know. The first printing has been exhausted and a reprint is now in hand. Please promote the statement widely. From now on we will charge $1 per copy to cover costs. The response has been very encouraging.

4. Welcome to a new Editor, Dr Nigel Barlow who takes over from Dr Murray Williams. Send your papers directly to him at Agricultural Research Division, Ministry of Agriculture and Fisheries, Private Bag, Palmerston North.

5. I have initiated an index system to the Society's affairs. This began mainly as a means of locating our previous action and comments on environmental matters. Topics have a habit of popping up years after a previous materialisation (Greenstone Road, Plimmerton Swamp, Lake Wairarapa, Snares Islands, etc.) and it has become hard to find out what we said last time from our minute books and files. This work is in the hands of Margaret Leslie - a one-person subcommittee.
Incidentally, if any members hold files of Society activity please tell the Hon Sec or Margaret Leslie (at P.O. Box 40, Patea).

Mike Rudge
President

COUNCIL PRESS CONFERENCE IN BEEHIVE

Council set a number of precedents with their 5 December launch of "A Statement of Concern" when President Mike Rudge presented the Minister for the Environment, the Hon. C.R. Marshall, with a copy of "The Environmental Consequences to New Zealand of Nuclear Warfare in the Northern Hemisphere". The presentation took place in the Beehive Theatrette before an audience of 50, including Society guests, M.P.s, and media representatives.

This was the first time the Theatrette had been used for such a purpose to my knowledge, and the statement was the first substantial document on the topic by a New Zealand scientific society. A wider report by a committee of the Royal Society is now being printed and is expected to be released within the next two months.

The statement was sent to all M.P.s prior to the launch and to underscore Council's non-party approach to the event, Dr Rudge asked Mr Marshall to accept it in three capacities - on behalf of Government, on behalf of all M.P.s, and on behalf of the people of New Zealand. Following the Minister's acceptance of the Statement, Dr Rudge and myself answered questions from the audience.

Although the papers in the major centres gave the release of its main findings good coverage, it was a pity that little reference was made to the Minister's remarks. I quote some of them below for the benefit of members.

"Fellow MPs, Dr Rudge, ladies and gentlemen. First, my thanks to the New Zealand Ecological Society for this opportunity to support this study of the likely impact of nuclear war on a nation remote from the likely centre of conflict.

It contains a message critical to our future, and it is that New Zealand is no safe haven from a major nuclear war in the Northern Hemisphere....

(Concluding remarks)

...This report, by an organisation with a track record of major environmental research to its credit, is an attempt to jolt us out of our complacency.

To survive as a society in the event of nuclear holocaust, we must prepare for the worst. Preparation means wide debate on the options. It also means extensive research, and here I commend the Society for its range of constructive recommendations.

There is good logic in involving New Zealand scientists in regional and global studies that attempt to better predict
the environmental consequences of nuclear war. There is more immediate logic in a task force of experts that would assess the impact of nuclear war on the New Zealand environment and its wider effects on our trade, food production, energy supplies, health and communications.

You can be assured that the Government will give both recommendations careful consideration.

This report is a very timely reminder that the consequences of nuclear war for this country must be squarely faced, and raised to the level of national debate. A quote from the report says it succinctly: "The first challenge is clear: it is to break our own silence."

The most fundamental and increasingly urgent challenge is to do all that we possibly can to bring an end to the madness of the nuclear arms race. In this way we all guarantee that not only our country and our people, but the human race, and this planet, survive."

Wren Green

COUNCIL BEST-SELLER!

The Council's Statement on the 'Environmental Consequences ..." proved to be a very popular document! The first edition of 900 copies was a 'sell-out' and disappeared in 3 months. All MPs received a copy, as did all Ecological Society members. In addition, the Secretary was kept busy answering numerous requests. Since the comments to Council have all been positive, from both within and outside the Society, and since Council had a firm order for 1000 copies, Council decided to go ahead with a second print run. This time 5000 are being produced and the prices are: $1, or 50¢ each for school purchase and use. Out any day now!

Comments back to Council indicate how informative, useful, and timely the Statement has become. Give it a moment's thought, how many distant family members or friends of yours are unaware of its content and relevance to the nuclear debate? What a splendid opportunity to "Break your own silence" by mailing some copies to them! The cost is certainly cheap enough for 24 pages plus cover. The only barriers to action will be psychological. I've heard it said by people involved with peace activities that the hardest thing to do is to discuss nuclear issues with other family members. Giving or sending them a copy of "Statement" may be an easier proposition. Please give it some thought, preferably some action. There's little point in compiling such information if it isn't passed on and shared. Postage is free, but a little extra to cover such costs would be welcome if you feel like it. All mail to the Secretary, P.O. Box 12-019, Wellington.

Wren Green

PROGRESS TOWARDS A NEW ZEALAND BOTANICAL SOCIETY

Over one thousand questionnaires were sent out to members of the botanical community in mid-1984 seeking views on the need for, and possible functions of a national botanical society.
Three hundred and thirty-one questionnaires were returned - 32% of the total mailed out. The following results are derived from the 331 respondents:

290 (88%) see the need for a national botanical society
29 (9%) do not see the need
269 (81%) would join such a society
35 (11%) would not join.

Of the 8 given possible functions such a society might perform,

284 (86%) favoured publication of a newsletter
125 (38%) favoured annual meetings/conferences
163 (49%) favoured occasional meetings/conferences
150 (45%) favoured occasional field trips
72 (22%) favoured occasional social events
143 (43%) favoured the preceding three options combined
264 (80%) favoured presentation of submissions on legislation/issues affecting New Zealand botany
270 (82%) favoured coordination of national projects, e.g. an atlas of the New Zealand flora.

Many took the trouble to offer additional comments, for which thanks are due. The most common were (i) the need for a professionally-based society, open to all; (ii) the need for effective liaison and cooperation with 'competing' societies and existing regional botanical societies; (iii) that there are already too many societies and too many annual meetings; (iv) that a general outlook should be maintained - covering the whole of botany; and (v) that organisation may eventually be able to follow the Ornithological Society. Support was particularly marked and enthusiastic from professional botanists and from amateurs in areas not served by existing regional botanical societies.

Meetings of interested botanists were called at both the SYSTANZ and Ecological Society conferences in August 1984. Although both meetings were small, a large majority of those present voted that 'we' (!) proceed towards formation of a New Zealand Botanical Society.

There appears to be consensus that the publication of a Newsletter is the most desirable first step. Accordingly, it is hoped to produce two issues in 1985, at mid and end of year. Donations will be requested to cover the costs of 1985 Newsletters, which will be mailed to all those who responded indicating that they would join a national botanical society - and, of course, to any others who would like to receive it. For 1986, a quarterly newsletter will be aimed at.

Some time during 1986, an inaugural meeting (one day symposium and AGM?) of the society will be held, probably attached to one of the major existing biological society meetings.

Thanks are due to all who returned their questionnaires, and for the many messages of support. Apologies are offered to those who received their questionnaires late (or not at all!). I welcome further suggestions, and contributions to the first newsletter, including notice of current events, informal research interests, people news, reports on field work, desiderata, new records etc. Whilst maintaining a high standard of presentation, it is hoped that the content will be relatively informal, informative, and interesting to read.

Anthony Wright
Auckland Institute & Museum, Private Bag, Auckland, 1.
HONORARY LIFE MEMBERSHIP FOR DR K.A. WODZICKI

At the 1984 AGM Dr Wodzicki was admitted to Honorary Life Membership of this Society. This is an honour only rarely accorded by the Society, and Dr Wodzicki is a worthy recipient of it.

Dr Wodzicki came to New Zealand as Polish Consul in the 1940s. He was a graduate of Cracow University with an interest in the reproduction of domestic animals. In New Zealand he soon delved into the study of introduced mammals and produced in 1950 what is still the definitive book on the subject "Introduced Mammals of New Zealand".

In 1948 Dr Wodzicki initiated the research group in DSIR which today is known as the Ecology Division. He remained Director of it until 1965 when he retired.

In retirement 'the Doc' has continued to be an active and productive scientist on introduced mammals, and his love of many years - the gannets of Cape Kidnappers. The management and help he has given to the rising generation of scientists is legendary.

The Society is proud to honour the contribution to New Zealand ecology of Dr Wodzicki and wishes him many more years of happy 'retirement'.

JOHN WARHAM RETIRES

On January 31st John Warham retired from teaching in the Zoology Department, University of Canterbury. He can still be reached through the Department since he retains a desk there - and is likely to be kept busy there in his retirement. He has also been honoured with a D.Sc. from his Alma mater, the University of Durham, for his sea-bird work.

ENVIRONMENTAL & CONSERVATION NEWS

ENVIRONMENTAL FORUM 1985

Conservationists and developers, Government officials and academics, legislators and activists, met together in the Legislative Council Chamber from March 7th to 9th, to discuss the future of environmental administration in New Zealand. One hundred and fifty people had been invited by the Minister for the Environment, the Hon. Russell Marshall, not to represent their organisations and interests, but to participate as individuals contributing from their personal experience and knowledge. A further 100 observers, mostly from Government Departments, viewed the Plenary Sessions from the Gallery, but took full part in the Discussion group sessions. The focus was the "Discussion Paper on Environmental Administration" produced late last year, but the "Alternative Discussion Paper", produced by a group of representatives of six conservation/action groups, had been circulated to all participants and figured strongly in the speeches.

It seemed that speakers from all points of the environmental compass felt that the present way in which we handle planning applications, advisory services, investigative processes, impact reporting and, perhaps
most significantly, resource planning, is disjointed and unsatisfactory. For the developer the system is seen as a series of hurdles, with ever changing heights, so that it is difficult to predict how development proposals will be met by the public or even the Government. The conservationists seem to view the same hurdle course - for them, however, the problem is that the people who set the jumps (i.e. the Government) keep cheating!

That a Ministry will be created was clearly stated by Mr Marshall at the beginning of the Forum - discussion then followed on how best to give it strength, and how to support it with equally strong advisory councils and a Commissioner.

At the end of the Forum the following points emerged:

- that the laws will be clarified, by drawing up an over-riding statute, possibly called an "Act of Consistency". This should state the principles for resource management and incorporate appropriate items from the Treaty of Waitangi, and would guide interpretation of such acts as the Town and Country Planning Act, Wild and Scenic Rivers Act etc.

- that the Commissioner for the Environment should be independent of the new Ministry, and should be appointed by Parliament five-yearly. He/she would audit E.I.R.'s.

- that E.I.R.'s should cover a wider range of subjects - namely biological, physical, social, economic and wise use of resources.

- that the present advisory councils remain, but be strengthened, and given greater independence from Government Departments. They will become important advocates FOR the environment.

- that the new Ministry should be initially small, with a high ranking Minister and Head of Department. Only this way could control status, similar to that held by Treasury and State Services Commission, be obtained.

- that the Ministry should have advisory, control, research, educational, liaison and planning functions, with a role in conflict resolution arbitration.

- that a "nature conservancy" be created to manage all natural and semi-natural Crown lands. The position of this conservancy within either the new Ministry or a restructured Lands Department was undecided.

- that both the Ministry and the conservancy should have a strongly regional arrangement in order to maintain contact with the "grass roots" on environmental matters.

What next? A working group has been set up comprising representatives from Treasury, State Services, Department of Lands and Survey, the Commission for the Environment and Ministry of Works, plus five non-Governmental people - Guy Salmon (Joint Campaign on Native Forests), Aila Taylor (Te Atiawa Tribe), George Cunningham (mining development), Anne Graeme (National Council of Women), Sian Elias (lawyer), Bob Priest (Waikato Valley Authority). This group will turn the deliberations of the Forum into the skeleton of a workable arrangement to present to the Minister and Cabinet in April. Most importantly they must find a name for the Ministry - about the only subject on which consensus could not be reached!

Judith Roper-Lindsay
KAITORETE SPIT SANDMINING COULD THREATEN RARE DUNE SYSTEM

A Christchurch company, W.A. Habgood Limited, is applying for a sandmining licence over part of Kaitorete Spit in Canterbury. The area applied for is a 2.85 km long stretch of dunes close to the Kaitorete Spit Scientific Reserve. A previous application by the company was withdrawn after being incorrectly advertised.

The company have been quarrying for sand in the area since 1952, under a mining permit issued by the Department of Lands and Survey. The Department have decided not to renew the permit, and a mining licence is now required under the Mining Act. Any new application will be publicly notified with opportunity for comments or objections.

Kaitorete Spit is of considerable geomorphic interest, both nationally and internationally, because this type of dune system associated with mixed sand and gravel beaches is rare on a world scale. The dunes formed on the Spit between 500 and 1,500 years ago. Sand supply to the dunes is low and the shoreline is not presently growing. If the dunes are removed by mining their replacement by natural processes will be very slow, according to a report prepared by the Department of Lands and Survey.

The Kaitorete dunes support the most extensive area of the native golden sand sedge pingao (Desmoschoenus spiralis) remaining in New Zealand. They also contain the prostrate broom, Carmichaelia appressa, endemic to the Spit, the uncommon Carmichaelia corrugata, and the southern limits of other coastal species.

Kaitorete Spit has high cultural value for the Maori people because of their ancestral associations with the area. The dunes still provide pingao fibre in weaving, and there is a large number of archaeological sites.

Where mining has occurred, the inner dunes and most of the foredune have been removed and the pingao cover has been destroyed. Marram grass has been introduced in places and is thriving at the expense of Pingao. What remains is a flat, modified landscape dominated by roads, stone piles, marram and mining debris.

Adjacent to the mining area is the Kaitorete Spit Scientific Reserve. The Department of Lands and Survey have prepared a management plan for the reserve and public comments and submissions have been called for. The department is considering reserving further areas.

The Nature Conservation Council will consider what action it should take when the mining licence application has been publicly notified and details are known.

from Nature Conservation Council Newsletter
DEVELOPMENT MORATORIUM SUGGESTED OVER MONOAO SHRUBLAND

The Nature Conservation Council has recommended that a moratorium be placed over further development of the monoao shrubland in the Whakatau Farm Settlement near Taupo.

Monoao (Dracophyllum subulatum) and associated species were formerly widespread on the Volcanic Plateau but have dwindled to a fraction of their original extent with farming and forestry development. A significant part of what remains is on land proposed for development or adjacent land zoned to be retired permanently from grazing. The council is concerned to ensure that no further areas are developed before the land has been investigated for possible reserve status.

A report by Dr Bruce Clarkson of Botany Division, DSIR, refers to the high scientific significance of the monoao-dominated vegetation and recommends reservation as a Scientific Reserve under the Reserves Act. Reservation of the monoao and kanuka-dominated vegetation on the land retired permanently from grazing is also recommended.

Comments on the insect fauna of this vegetation type suggest they are also of scientific significance. The species present may be relicts of an ice age fauna once dominant in the area. They are biologically interesting because of their disparity with surrounding communities.

A draft management plan for the farm settlement will be prepared after preliminary comments have been received in December.

from Nature Conservation Council Newsletter

RESEARCH NEWS

SECONDARY SUCCESSION IN THE LOWLAND FORESTS OF THE MARLBOROUGH SOUNDS MARITIME PARK

(The following Ph.D. abstract was received over a year ago, but was unfortunately overlooked. We thank Margaret Wassilieff for making it available to the Newsletter.)

This study documents aspects of the forest recovery process in secondary communities of the Marlborough Sounds Maritime Park. Some 38 types of seral vegetation were recognised as being common in the lowland zone of the Marlborough Sounds.

Data on vegetation structure and composition, forest floor biomass and nutrient status, and soil nutrient status were collected from 39 seral communities ranging in age from 2 to 84 years and were compared with data collected from 6 adjacent undisturbed lowland forest communities.

Three seral pathways were represented at the study sites, the vegetation was developing toward either:
Weinmannia racemosa dominated forests, mixed broad-leaved species forests, or *Dysoxylum spectabile* coastal forests.

A number of vegetation structural parameters (crown cover, specific vegetation space, basal area and stem density) showed rapid recovery to levels similar to those of undisturbed forests. However, other structural parameters (mean canopy height, total stand volume, total stand foliage) had not recovered to levels typical of adjacent undisturbed forests some 70 to 80 years after disturbance.

The pattern of vertical development of the forest foliage during succession was from short concentrated foliage distributions in young stands to tall, relatively evenly spread distributions throughout the height profile in older stands. Foliage in stands older than 25 years tended to be concentrated in the height class near, or just below, the mean canopy height of the stand. Shrub understorey development commenced some 45 years after disturbance.

Few trends in species diversity were evident during succession. Species richness (R) was very high and at a maximum in the youngest study stand. Species richness was relatively constant after two years and changes in species diversity during succession were due mainly to decreases in species evenness (J').

Duration of seral vegetation in the Marlborough Sounds Maritime Park was related to the life spans of the dominant pioneering species at a particular site. *Gahnia pauciflora* dominates a site for only 1 year, *Cassinia leptophylla* can dominate for 20 years, *Leptospermum scoparium* for some 45-55 years and *L. ericoides* can dominate the vegetation for between 70 and 85 years.

Linear relationships were derived between age and d.b.h. measurements for three seral tree species (*Weinmannia racemosa*, *Leptospermum scoparium* and *L. ericoides*). *Leptospermum scoparium* and *L. ericoides* have similar average diameter growth rates of 0.6 cm/yr for most of their growing period. The average diameter growth rate of *Weinmannia racemosa* was 0.29 cm/yr.

The variation in weight of the forest floor at any one study site was very high and the sample size employed in this study was inadequate for estimating the weight of the forest floor within reasonable limits. However, broad trends in the recovery of the forest floor during succession were noted. There were two main patterns of forest floor accumulation. Sites dominated by *Pteridium esculentum* showed rapid recovery of forest floor biomass to very high levels. Sites dominated by *Leptospermum* and *Cassinia* species showed much slower rates of forest floor recovery and never approached the weights attained by *Pteridium*-dominated stands. Two types of forest floor (laminated mors and moroid-mulls) developed under seral vegetation but were not present under undisturbed forests.

There was a trend toward a decline of the forest floor under *Leptospermum*-dominated stands after 40 years and this was coincident with a decrease in the contribution of *L. scoparium* to a stand's basal area and crown cover and an increase in dominance in a stand by
L. ericoides and Pseudopanax arboreus. Seral stands on slopes and ridges never attained forest floor weights similar to those under virgin forests on comparable sites.

Rates of nitrogen, organic carbon, total cation, and total phosphorus accumulation in the forest floor layers were directly related to the rate of forest floor biomass accumulation. No large accumulation of nitrogen was noted in the forest floors during the early stages of succession. A high proportion of the available nutrient capital of many of the seral stands and the undisturbed forests was located in the forest floor and the top 1 cm of mineral soil. Nitrogen was the one element that appeared to be in ample supply in the mineral soil to a depth of 30 cm.

No relationships between rates of regeneration and measured soil parameters were evident in this study. It did appear, however, that the broad seral patterns of vegetation recovery were related to the soil and topographical pattern of the Marlborough Sounds. Soils of valley floors and terraces and steep colluvial slopes support seral communities that are developing toward a mixed broadleaved species forest or to a Dyssoxylum coastal forest. The pioneering shrub Leptospermum scoparium was not important in seral vegetation at such sites. Soils of the gentler slopes and ridges support communities that are tending toward either a Weinmannia racemosa-dominated forest or a mixed broadleaved species forest. Leptospermum scoparium is usually an important component of the seral vegetation at these sites. All sites that supported vegetation which was developing toward a Weinmannia racemosa forest possessed low or very low exchangeable calcium levels in the A horizon soils.

Seasonal fluxes of nutrients in litterfall were monitored in two adjacent young seral stands. One stand was dominated by a Leptospermum ericoides - L. scoparium low forest and the other stand by a Coriaria arborea - Aristotelia serrata low forest. Quantities of litter returned to the forest floor under both stands were higher than those reported from undisturbed forests in New Zealand. The annual litterfall under the Leptospermum-dominated stand was 7.80 tonne/ha and under the Coriaria-Aristotelia stand it was 10.07 tonne/ha. High quantities of nutrients were returned to the forest floor under both stands.

Leaf-litter decomposition in the Coriaria-Aristotelia stand was rapid. After 6 months on the forest floor the leaf litter reached such a degree of disintegration that it could not be separated from the mineral soil. In contrast the decomposition of Leptospermum leaf litter was slower. Approximately 40% of the litter weight of the Leptospermum material was lost after 13 months on the forest floor. The nutrient flux behaviour of the litter differed at the two seral stands and this reinforced the soil nutrient differences of the two sites.

The value of young regenerating vegetation to the integrity of the Marlborough Sounds lowland forest ecosystem has not been appreciated by authors of recent land use studies of the Marlborough Sounds. A critique of some of the recommendations made in the land use studies has been undertaken. Guidelines to assist with the management of scenic reserves in the Marlborough Sounds Maritime Park have been drawn up and are discussed within the context of modern ideas of successional
theory.


NOTICES & CONFERENCES

1985 ECOLOGICAL SOCIETY CONFERENCE AND A.G.M. - MASSEY UNIVERSITY

Conference Organiser: John Skipworth, Department of Botany & Zoology Massey University, Palmerston North.

General:

The 1985 New Zealand Ecological Society Conference will be held at Massey University, Palmerston North from Tuesday 20 August to Friday 23 August inclusive. The proposed programme is as follows:

Tuesday 20

p.m. Registration and workshops from 2.00 p.m.
Workshop subjects still to be defined but Progress in Mammal Research, Ecology in Antarctica and Analysis/Techniques especially in Plant Communities, are possibilities. It is not too late to offer your suggestions!

Evening Wine and cheese plus light meal (big eaters may have to make their own arrangements).

Wednesday 21

a.m. Papers directed to the conference theme of "Managed Ecosystems". This title is designed to attract a broad spectrum of speakers who may have something to say on a variety of subjects from Forest Management to Conservation, to Pest Management to Fertiliser Application to National Parks to ....

p.m. Field trip. Present intentions are that this will be based on the Managed Ecosystems of Massey University farms and adjacent forests.

Evening A.G.M.

Thursday 22

a.m. Contributed papers.

p.m. Poster session and contributed papers.

Evening A.G.M.
Friday 23
a.m. Contributed papers.

Call for papers and posters

In addition to those which address the Conference theme, papers pertinent to any aspect of Ecology may be presented and all ecologists are encouraged to make an offering. Students will be particularly welcome.

A poster session is planned for Thursday afternoon. Good posters are eye-catching, conveying just a few major features of a research topic. Further details and critical comments are obtained by discussion with the author, whose name should be clearly displayed and who must be present at the session. A poster session can be a very effective means of presenting your work.

If you wish to contribute a symposium paper, a general paper or a poster, please send your name and address and an abstract of less than 150 words to the Conference Organiser. Abstracts must be received by May 31, 1985 and will provide the basis for acceptance of the presentation. A local committee in consultation with Council is responsible for selection. If it is possible for you to make your offering either as a paper or a poster you should indicate this along with your abstract.

Accommodation

Accommodation will be provided in the Massey University student hostels, probably on a single room/share facilities basis.

Beds and three meals a day was, at last check, $18. The Society dinner will be an additional $25 (including wine) and the wine and cheese evening $6. Bus hire for field trip has not yet been costed but there is reasonable hope that for anyone taking the full offering, cost will be less than $99.99.

Enrolment

REGISTRATION FORMS WILL BE SENT OUT WITH THE FULL CONFERENCE PROGRAMME IN THE NEXT NEWSLETTER BUT THOSE INTENDING TO GIVE A PAPER MUST SEND THEIR ABSTRACTS BEFORE THE END OF MAY.

ANZAAS CONGRESS

Melbourne, 26-30 August 1985

ANZAAS is to depart from the tradition of 96 years and be presented as a Festival of Science. An effort is to be made to involve the general community, particularly students, youth, women and industry. A movement will be made away from the previous "Section" format. Instead half day sessions for which single tickets will be sold are planned. Sir Edmund Hillary is to be the Festival President. For further information: ANZAAS Festival of Science, Monash University, Clayton, Victoria 3168, AUSTRALIA.
13TH NEW ZEALAND GEOGRAPHY CONFERENCE

August 26-30 1985

The thirteenth New Zealand Geography Conference will be held at the University of Waikato, Hamilton. Membership will be open to all who wish to attend.

Further information is available from the Secretary, N.Z. Geography Conference, Hamilton Teachers' College, Private Bag, Hamilton, New Zealand.

INTERNATIONAL CONFERENCES

1985


4-10 July Third International Congress of Systematic and Evolutionary Biology. University of Sussex. Details from: Prof. B. Cox, c/o TCSEB Congress Office, 130 Queen's Road, Brighton, Sussex BN1 3WE, England.


1-3 October Treatment, Disposal and Management of Human Wastes. Tokyo, Japan. Details from: Programme Committee of 1st Asian Conference, Japan Society on Water Pollution Research, c/o Hoken Kaikan Bekkan, 1-1 Sadohara, Ichigaya, Tokyo 162, Japan.

1986


24-29 August Fourth International Symposium on Microbial Ecology. Ljubljana, Yugoslavia. Details from: Prof. France Megusar, Biotechnical Faculty, E. Kardelj University of Ljubljana, Jamnikdrjeva 101, 61000 Ljubljana, Yugoslavia.

1987

24 July-1 August XIVth International Botanical Congress. Berlin, FRG. Details from: XIVth International Botanical Congress
NEW ZEALAND DATING FACILITIES

The Royal Society Committee for Quaternary Research has compiled a list of New Zealand facilities for dating the Quaternary. Twenty-seven dating methods and over 70 researchers who are actively engaged in operating one or more of these methods are listed.

Copies are available from: Professor P.W. Williams,
Department of Geography,
University of Auckland,
Private Bag,
Auckland.

NEW PUBLICATIONS

"LOWLAND FORESTS IN NEW ZEALAND" editors: K. Thompson;
This is the proceedings of a symposium held at the University of Waikato, 27-28 May 1980.
Now available at a cost of $15 from the Environmental Studies Unit, University of Waikato.

"PROTECTION AND PARKS" (1984)
Published by: Department of Lands & Survey, Private Bag, Wellington.

A revised version of the discussion document, "Strategies for the Management of Mangrove Forests in New Zealand", is now available from the Nature Conservation Council. Comments are invited from all those with an interest in the conservation and management of mangroves in New Zealand.

"JOURNAL OF TROPICAL ECOLOGY". The Journal of Tropical Ecology will be launched in 1985 by the International Association for Ecology (INTECOL), the General Ecology Section of the International Union of Biological Sciences. The IUBS in 1983 declared 'The Decade of the Tropics'. It will publish papers in the general field of the ecology of tropical regions. Papers may either be devoted to the results of original research, either experimental or descriptive, or may form significant reviews. Short communications are also welcome, in the expectation that these will allow discussion to develop between readers.
NEW ZEALAND ECOLOGICAL SOCIETY - COUNCIL MEMBERS 1984 - 1985

President: Mike R Rudge
Vice President: Ian A.E. Atkinson
Secretary: Alice E. Fitzgerald
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Subcommittees:
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Environmental Consequences of Nuclear War: Convenor - Wren Q. Green
Conservation: Convenor - Kevin R. Hackwell
Awards: Convenor - Mike N. Clout
Conference '85: Convenor - J. 'Skip' Skipworth
Member Bodies Committee Representative: Mike R. Rudge