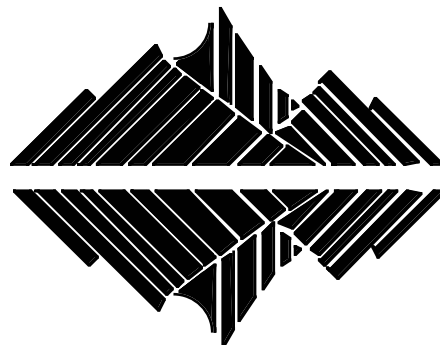


Ecological Society

Newsletter



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48TH ANNUAL GENERAL MEETING OF THE NEW ZEALAND ECOLOGICAL SOCIETY

*Tuesday 21 November, 2000, Waikato University,
Hamilton*

Present

Carol West (Chair), Dave Kelly (Secretary), 52 other members and 4 observers (see list below).

Apologies

Apologies were received from: Alan Mark, Kath Dickinson, Roger Bray, Gwen Struik, Wren Green, Helen Hughes, Jason Roxburgh, Mark Davis, Sarah Beadel, David Norton, Bev Clarkson, Caroline Mason, and John Hunt.

Minutes of the 47th Annual AGM

It was moved the minutes of the 47th annual AGM be accepted as a true and correct record (Bruce McKinley/John Craig – carried).

Matters Arising

Peter Wardle thanked the Society for the honour of life membership, which was awarded at last year's AGM.

Code of Ethics

Mark Sanders outlined comments received via the newsletter and listserv since the last AGM. The Royal Society code of ethics was thought to be fine as it is, so he suggested that we vote to adopt it. Graeme Loh asked if it should include a mention regarding striving to prevent extinctions. It was suggested that this could be done later by modification to an already adopted code if members so wished. Moved that we adopt the code (Bruce Burns/Mark Sanders – carried).

Professional Body

Council said that attempts to get responses from the members had been unsuccessful. Janet Owen suggested that interested people could work on this; Mark Bellingham agreed to help.

Annual Reports

Carol West spoke to the Annual Reports, published in Newsletter 96 (October 2000). During the year, Colin O'Donnell resigned as treasurer and was replaced by Ben Reddiex, and James Ross took over the newsletter from Astrid Dijkgraaf. Journal editor David Wardle is moving to the University of Sheffield, but he will be in NZ for 3-4 months a year, so he says he is willing to stay on as Scientific Editor, preferably assisted by a technical editor to handle the production side after acceptance. Jenny Steven expressed interest in the technical editor role.

Moved thanks to Colin O'Donnell and Astrid Dijkgraaf for their service to the Society (Carol West/Craig Miller - carried with applause).

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The Membership is healthy, partly thanks to the efficient efforts of the Secretariat. Journal subscriptions were changed to US\$80 for outside the pacific, which has been a windfall with recent fall in value of the NZ\$ against the US\$.

Ben Reddiex spoke to the Treasurer's report. There was a small loss in the 1999/2000 year of \$1651.56, which was slightly less than expected. Predict a profit of about \$3000 in the 2000 year (which ends on 31 December). Moved that the Treasurer's report be adopted (Ben Reddiex/Susan Timmins - carried).

Election of Officers

Nominations

President: Carol West (Dave Kelly/Susan Timmins).
Vice-President: Janet Wilmshurst (Carol West/Craig Miller).

Secretary: Dave Kelly (Astrid Dijkgraaf/Carol West).

Treasurer: Ben Reddiex (Kerry-Jayne Wilson/Mark Sanders).

As there was only one nomination for each of these positions the candidates were declared elected, with applause.

Election of Council

The journal editor (David Wardle), Newsletter editor (James Ross), and Submissions convenor (Jason Roxburgh) are all willing to continue in those posts and are *ex officio* members of Council.

Ben Reddiex and Bruce Burns finished their terms, leaving two vacancies. Ben has since taken over as Treasurer.

Nominations

Bruce Burns (Ben Reddiex/Craig Miller).
Susan Wiser (Bruce Burns/Peter Wardle).

As there were two nominations for two positions Susan and Bruce were declared elected to Council.

General Business

There was only one item of business being the motion by Peter Wardle (seconded David Norton/David Given) about conservation goals being best achieved by accommodating the reasonable economic interests of local people (circulated with the last newsletter No. 96 Oct. 2000).

Peter said the current Government is going to be looking further into indigenous logging so the issue is not dead, and that attitudes on the West Coast have become very bitter towards conservation. He said it was a divisive issue but the Society was mature enough to consider it, and that while it was a political issue—today politics could not be totally divorced from science. He thought there were conservation losses on the Coast arising from negative

reaction to the logging ban. John Flux spoke against the motion as wrong, political and divisive. He considered that the supporting material circulated with the motion was incorrect in a number of matters of scientific fact. Graeme Loh also opposed the motion, which he said was on the face of it eminently supportable, but in this case would be inextricably linked to the logging of untouched old growth forest. Kerry-Jayne Wilson felt unsure, partly because of uncertainty about what 'ecologically sustainable' meant. She wanted a very high level of proof for sustainability before she would support an economic scheme. As the motion is loosely worded, she said she would vote against it. Bruce McKinley said that the motion was poorly worded, particularly phrases such as 'the Society holds the view', and 'reasonable economic interests'. Roger Dungan opposed the motion as it may mean the Society was held to ransom in the future, but he supported the ideas behind it to some extent. John Ogden opposed the motion and he was on the Royal Society panel, which reviewed the Timberlands scheme. He said the Society has a mechanism for developing policies on issues like this, such as the 1991 'Sustainability' statement and an earlier statement on beech forests. He says that would be a better way of approaching this issue. John Sawyer also opposed the motion because he doesn't believe the motion is the best way of achieving conservation goals.

Craig Miller asked Paul Blaschke if the 1991 Sustainability statement mentioned economic matters, which Paul thought it did. Craig said he thought other Society members should support the principle of sustainability, which had to include the social component, and that first-world countries had to take their positions on sustainability seriously (and act locally). He thought the wording needed tightening but said he would not oppose it. Astrid Dijkgraaf commented on problems with applications for native logging on private land in the Wanganui DOC area, so she was not happy with the motion. John Craig supported the concept of sustainability but not necessarily the wording of this motion, because sustainability has three components, not just ecological sustainability. He also would want National Parks to be excluded, and additional wording on Maori issues. He recommended it be considered over a longer time period. Bruce Burns agreed with John, and thought an update of the 1991 Sustainability statement might be a way forward. Frances Schmechel asked if it could be an item for next year's conference in 2001. Jenny Steven thought something might have to be done this year and could the Society comment to the Select Committee reviewing logging or to new roading proposals

(Hollyford/Heaphy). Paul Blaschke thought an update of the Sustainability statement would be timely. He said that statement was general and useful, but would not directly address the matters in the preamble to the motion.

Peter Wardle then withdrew his motion on the understanding that the Society would instead initiate a review through the more usual consultative process.

Moved that the Society update the Sustainability statement, with the aim of completing the review by October 2001, the tenth anniversary of the Resource Management Act (Chris Ward/Susan Timmins – carried).

Present at 2000 AGM of NZ Ecological Society

Doug Armstrong, Gary Barker, Jaqueline Beggs, Mark Bellingham, Kim Bestic, Paul Blaschke, Kerry Brown, Dianne Brunton, Bruce Burns, Chris Bycroft, Isabel Castro, Bruce Clarkson, Joy Comrie, John Craig, Astrid Dijkgraaf, Karen Denyer, Roger Dungan, Margaret Flux, John Flux, Mel Galbraith, Richard Gordon, Helen Harman, Ian Jamieson, Weihong Ji, Ruby Jones, Dave Kelly, Kim King, Bill Lee, Graeme Loh, Bruce McKinley, Craig Miller, Ron Moorhouse, John Ogden, Janet Owen, Ian Payton, Brian Rance, Ben Reddiex, Alastair Robertson, James Ross, James Russell, Mark Saunders, Frances Schmechel, Margaret Severinsen, Willie Shaw, Jenny Steven, Jon Sullivan, Susan Timmins, Graham Ussher, Susan Walker, Chris Ward, Peter Wardle, Carol West, Deb Wilson, and Kerry-Jayne Wilson.

Observers (non members)

Ken Ayers, Ian Flux, Sarah Flynn, and John Sawyer.

MINUTES OF NZ ECOLOGICAL SOCIETY COUNCIL MEETING

Friday 9 February, 2001 PAMS, University of Canterbury.

Present

Carol West, Dave Kelly (secretary), Mark Sanders, Ben Reddiex, Jacqueline Beggs, Bruce Burns, and Susan Wisser.

Apologies

Janet Wilmshurst, James Ross, and David Wardle.

Matters Arising

Incorporation of Society

Audited accounts from the November AGM and payment has been forwarded to the Registrar of Incorporated Societies.

Correspondence

New members: eight new members: six full (Sandra Anderson, Sarah Flynn, Leonard Gillman, the Minister of Conservation, Tim Moughtin, Marjorie van Roan) and two unwaged (Anthony Keen, Jon Terry). Resignations: four unwaged (RAL Batley, Max Dewdney, Cameron Walker, JC Watt) and two full (Randall Milne, Steven Seefeldt).

Treasurer's Report

We have reinvested BNZ term deposit \$7,000 at 6.6% for 6 months and Westpac \$10,000 for 100 days at 6.4%. We have \$50,000 (incl. approx. \$14,700 allocated for TuiTime) in the bank current account at present with a bill of approx. \$12,500 for next journal edition due soon.

Journal Editor's Report

(forwarded by David Wardle)

Jenny Steven has moved into her new role as Technical Journal Editor and this will assist tremendously with journal production.

Last year's Science Citation Impact Factor value was 0.810, which represents a significant increase from the previous year. Although I have major reservations about this index because of its strong American bias, it's encouraging to see that we continue to get respectable ratings. I would expect a sharp temporary drop with this year's index though, because that index will be based on papers published in 1999, the majority of which appeared in the ecotoxicology issue.

In 2000 we received 33 manuscripts in the end – one down on our all time record of 34 in 1999 and one up on the 32 we got in 1998. We published 22 manuscripts last year and the acceptance rate is continuing at around 65%.

Conference 2000 Windup Report

Bruce Burns gave a rundown on the Hamilton conference (see article later in newsletter). Final accounts almost complete with about five invoices still to come. Expected profit will be about \$5500, which is most excellent. 230 people registered for the conference although the number of people actually coming may have been slightly over that.

Conference 2001 (Christchurch)

The conference sub-committee has had several meetings and everything seems to be under control. There will be a jubilee session on first day, opened by Morgan Williams (past present and future of Society) then three keynote invited speakers: Ian Atkinson, Peter Wardle, Hugh Tyndale-Biscoe, on past present and future. Richard Duncan hopes to present an analysis of journal content changes over time. Then Dave Kelly with NZES award talk

(which will lead into later sessions). Theme is “uniqueness of NZ and how this helps ecology make new advances” or similar.

Education and Advocacy

We have asked to register three domain names: www.ecological.co.nz, www.tuitime.com, and www.tuitime.co.nz for future website development.

General Business

Sustainability statement

We were directed at the AGM to review the circa-1991 Sustainability statement. Volunteers (or suggestions) included Peter Wardle, Paul Blaschke, John Craig, Craig Miller, Susan Wisser, and Kath Dickinson. If we released a draft in October we could have a workshop on it in 2002 (to revise the draft and finalise it?). Workshop could be in Wellington. Bruce Burns will help to get a review under way, including asking in newsletter for other interest.

Next Meeting

11 May, 26 August

NEWSLETTER EDITOR'S REPORT

The article deadline for the next newsletter is April 30th 2001 and I invite all members to forward any interesting articles, graphics, book reviews, and upcoming conference details. I am interested in all information relating to NZ and overseas ecological issues and would like to incorporate a variety of different (even conflicting) viewpoints. I am also running short on details of upcoming conferences—please forward details to me (or to the E-mail listserver) and I will advertise them in upcoming newsletters.

Regards

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BEST PUBLICATION BY A NEW RESEARCHER

It's time to enter your publication(s) for the New Zealand Ecological Society Award for Best Publication by a New Researcher. The NZES will award an annual prize of NZ\$200 for the best published paper of an ecological nature, by a new researcher. This award is targeted at people at the start of their

research career. The award will be presented at the NZES's annual conference in Christchurch 2001, and reported in the NZES Newsletter.

Authors wishing to be considered for this award must meet the following criteria:

1. Be the first-named or sole author of the paper.
2. Be a current member of the NZES.
3. Either currently be a student or have graduated within the last 3 years, and be at the start of their research career.
4. The paper should be of an ecological nature, preferably published in an ecological journal (not restricted to publications in the NZ Journal of Ecology).

Authors wishing to be considered for this award should send 4 copies of their publication to the NZES Awards Convenor no later than 31 March 2001 (Jacqueline Beggs, Landcare Research, Private Bag 6, Nelson). All publications will be reviewed by a committee nominated by the NZES Council. At the discretion of the nominated committee, no award may be made in any given year.

Jacqueline Beggs, Awards Convenor

ECOLOGISTS RUN AMOK IN HAMILTON: NOTES ON LAST YEAR'S ANNUAL CONFERENCE

Ecology is alive, well and active in Hamilton if last year's conference is anything to go by. The conference, entitled “Keystone ecology: understanding communities and ecosystems”, was held at the University of Waikato from 19-23rd November, and attracted 230 participants from throughout the country, including a small number of overseas visitors (Table 1). The University provided an excellent venue at the Management Studies Building, with lecture rooms opening out to a large foyer and balcony, where all the real business got done.

A free student-only day was run on Sunday 19th, ably organised by Wade Tozer, Doug Bridge, and Joanna McQueen from Waikato University. Eighteen student papers were presented to an audience of 23 students and stimulated lively debate. Brain food (pizza and fruit) was provided at lunch, and the day was finished off with a social evening (partially subsidised by the conference). The conference also provided, on application, student-travel grants to those travelling to the conference. This year \$1000 was split among 10 applicants, with the amount weighted by distance and contribution to the conference.

In the main conference there were 78 papers presented, organised into a cohesive programme by Bruce Clarkson, Avi Holzapfel, and Theo Stephens.

I heard general agreement that the quality of paper presentations was excellent, so congratulations to the speakers. Each day started with a plenary session featuring a guest speaker followed by a series of two concurrent sessions. Only 15 posters (rather few) were presented this year. Guest speakers were Kim King (NZES award winner 1999), Neo Martinez from USA, and Richard Hobbs from Australia. Kim got the conference off to a great start with her introduction of a bibliography on stoats and weasels and her insightful analysis using this database. Both Neo and Richard provided excellent keynote talks for two of the focussed symposia organised for the conference, providing new perspectives into areas of ecology little-explored in New Zealand. Neo (named by his chemist father after the 60th element of the periodic table) introduced us to work on understanding the complex structure and function of food webs; a topic in its infancy in New Zealand. Richard Hobbs spoke on the discipline of landscape ecology and its potential as an integrating paradigm both for different scientific disciplines and for socio-economic concerns and land-use planning.

Four focussed symposia were held at the conference. 'Wetland ecology' (organised by Bev Clarkson and Louis Schipper), 'Keystone species: ecological naivety or critical paradigm?' (organised by Ian Payton and Bill Lee), 'Ecosystem management' (organised by John Innes), and 'Ecology in human-dominated landscapes' (organised by Craig Miller and Bruce Burns). The ecosystem management symposium was itself split into several sub-themes/case studies, which included food webs, mainland islands, and deer management. All the symposia were well constructed and provided stimulating perspectives on crucial issues for New Zealand ecology.

Three field trips were run on Wednesday 22 November: karst ecology (organised by Bruce Burns and Dave Smith), Botany of the Waikato (Bruce and Bev Clarkson), and Mapara/Warrenheip (Karen Denyer, Phil Bradfield, and Roger MacGibbon). All went well: no one got lost down the caves despite trying (even those that went 'black-water rafting'), the Mapara kokako put on a performance for the group, and the botanists discovered some previously unknown plants of the uncommon orchid *Calochilus robertsonii* in a Waikato bog.

Ecologists are obviously social creatures by the attendance at the conference social events (aided by a long walk to any alternatives). The obvious highlight was the dinner and celidh on Wednesday night presided over by John Innes' band "Reel Men". Many a fancy step was performed by the company present (although a quick count of feet towards the

end of the evening revealed left outnumbering right by two to one). On the Tuesday night, Natural History New Zealand kindly showed three of their natural history films to an appreciative audience. Consensus was that Tasmanian devils wouldn't make good house pets (particularly if more than one). Lastly, Lars Brabyn, Waikato University, ran a successful daylong course on 'GIS in Ecology' on the Friday following the conference. More of this type of event organised around the conference would be useful in the future.

There are many people to thank for such a successful conference. We are grateful to the conference sponsors, Landcare Research and the Centre for Biodiversity and Ecology Research, University of Waikato. Thanks also to the local organising committee, the symposia organisers, the field trip organisers, the student committee, the programme committee and the session chairs.

Any conference can be improved. Here are some ideas of how the 2000 conference could have been improved, which I submit to the organising committee for the next. We didn't succeed in getting good media coverage in local papers/radio/TV and needed to expend more effort on this. However, we were fortunate that Alan Coukell from National Radio came and carried out some interviews of participants, which were played on the science programme, Eureka. He should be invited to the next conference. The conference welcome and introduction was low-key, perhaps too much so (although various government ministers were asked to open it but weren't able to). There is an opportunity in an opening to involve an influential and relevant politician or bureaucrat and perhaps to have more Maori involvement. However, there were no complaints about the opening; and there are some benefits to getting straight down to the main business. Lastly, the conference could more actively involve local high school teachers and pupils. For example, offer them free entry to the conference (e.g., one teacher and a couple of senior pupils from each school). I'd be interested to hear members' suggestions of how our conferences could be improved.

An analysis of the conference participants brings out some interesting points. At the 2000 conference, registrants were largely from the Auckland-Waikato area, with most affiliated to Universities or other tertiary institutes, Department of Conservation, or Crown Research Institutes (Table 1). Although I don't have figures from previous conferences; my impression is that participation has increased from Regional Council staff and ecological consultants over that of previous years. Not surprisingly,

participants tend to come from the major urban centres with Universities. However, participation from regions throughout New Zealand and overseas is desirable, and perhaps greater effort could be made in promoting future conferences to these poorly represented areas.

Bruce Burns,
Conference 2000 Convenor

Table 1: Percent distribution of conference 2000 participants by source location and affiliation

Source location	%	Affiliation	%
Northland	2.2	Tertiary Institutes	28.5
Auckland	21.1	Depart. of Conservation	25.4
Waikato	24.6	Crown Research Institutes	18.0
Bay of Plenty	4.4	Consultants	10.1
Taranaki	0.4	Unaffiliated	7.9
Gisborne	1.3	Regional Councils	7.9
Hawkes Bay	1.8	District & City Councils	0.9
Taupo-Turangi	1.3	Govt. Depart (excl. DOC)	0.9
Wanganui-Manawatu	7.9		
Wellington	11.4		
Nelson	3.1		
Canterbury	13.2		
West Coast	0.4		
Otago	3.5		
Southland	1.3		
Overseas	2.2		

AWARDS PRESENTED AT THE 2000 ECOLOGICAL SOCIETY CONFERENCE, HAMILTON

The 2000 New Zealand Ecological Society Award was awarded to **Dr Dave Kelly**, University of Canterbury. This award, which is made annually, recognises society members who have made an outstanding contribution to the study and application of ecological science. Dave has been in the department of Plant and Microbial Sciences at the University of Canterbury since 1985 and worked principally on plant-animal interactions. His work in Canterbury in the 1980's was on biological control of *Carduus nutans*, culminating in a co-authored paper in *Ecological Applications* (1998). More recently he has become known internationally for a series of papers on mast seeding (variable seed output among years), which seems to be both especially well developed, and especially well studied, in New Zealand. In conjunction with colleagues he has published papers on masting in rimu, *Chionochloa*,

and *Nothofagus* as well as wider reviews of the New Zealand and overseas literature. His 1994 review in *Trends in Ecology and Evolution* is now the standard citation for the evolution of mast seeding. Recent papers in *Oikos* (1997 and 2000), *Global Change Biology* (1998), and *Ecology* (2001) developed methods for comparing predators and pollination factors which favour masting, and a forthcoming review in *Annual Reviews of Ecology and Systematics* (2001) promises to update the *TREE* article. His other major area of research is on bird pollination of New Zealand plants, initially on native *Peraxilla* mistletoes, but more recently extending to fuchsia, kowhai and other native plants, and to bellbird biology. In conjunction with others, especially Jenny Ladley and Alastair Robertson, this work has led to recent papers in *Nature* (twice), *Conservation Biology*, *NZ J Botany* (x 2), *NZ J Ecology* (x 3), and *NZ J Zoology*, among others. He has also supervised 38 research students at Canterbury, and served on the NZ Ecological Society council as Treasurer (1990-91), councillor (1994-98) and Secretary (1998-present). Congratulations to Dave on receiving this prestigious award.

The inaugural Best Paper by a New Researcher Award was presented to **Dr Deborah Wilson**, Landcare Research, for her paper "Limitation of collared lemming populations during a population cycle" published in *Oikos* 87: 382-398 (see abstract of this paper following this section).

The annual award for best student oral presentation was awarded to **Wade Tozer**, Massey University for his paper titled "Identifying sources of nitrogen in primary succession on Mt Tarawera, New Zealand". **Weihong Ji**, University of Auckland received a highly commended award for her student paper titled "Sex biased dispersal and a density independent mating system in the Australian brushtail possum, as revealed by minisatellite DNA profiling". **Ben Reddiex**, Lincoln University, received the award for best poster by a student for his poster titled "Impact of rabbit haemorrhagic disease (RHD) and predation on rabbit population dynamics".

Many thanks to the judges of the student awards, Alastair Robertson, John Ogdén, Isabel Castro, Ron Moorehouse, and Doug Armstrong. The standard of the student talks was excellent, and the judges put considerable time and effort into assessing the talks and posters. Thanks also to Glenn Stewart, Graham Hickling, and Eric Scott who judged the Best Paper by a New Researcher Award.

Jacqueline Beggs and Ben Reddiex,
Awards Convenors

ABSTRACT—BEST PAPER BY A NEW RESEARCHER

Wilson, D.J., Krebs, C.J. and Sinclair, T. (1999). Limitation of collared lemming populations during a population cycle. *Oikos* 87: 382-398.

Collared lemmings (*Dicrostonyx groenlandicus*) fluctuate cyclically in abundance on the Kent Peninsula, Northwest Territories, Canada. We tested whether predation was a necessary limiting factor of the lemming population in summer during the peak and decline phases (1996 and 1997) of the cycle. We reduced predation by means of a fence and an overhead mesh of monofilament line over 11 ha, completed late in the summer of the increase phase (1995). We used mark-recapture and radio-telemetry to investigate differences in demography between this predator enclosure and three control areas. Neither proportions of reproductive animals, nor sex ratio, nor net distances moved between trapping sessions differed significantly between the Enclosure and Controls. Adults were larger in the Enclosure than on Controls throughout the experiment; female juveniles born in the first summer litter of the peak were also larger within the Enclosure by August. Density was much higher in the Enclosure than on Controls in both 1996 and 1997. While density declined in 1997 on Controls, it first declined but then rose in the Enclosure; hence the population decline was reversed within the experimental area. Most mortality was due to predation in all three summers, but survival was significantly higher within the Enclosure only in the decline phase. We conclude that predation was necessary to limit the population in the peak and decline summers, but that the magnitude of the limitation was greater in the decline. Our results demonstrate that predation depresses peak and minimum densities of *Dicrostonyx* and further shapes the population cycle by extending the duration of the decline.

COME TO THE JUBILEE NZES CONFERENCE!

On 27–30 August this year (2001) the NZ Ecological Society is celebrating its 50th Jubilee—50 years since the Society was set up. This year's conference at the University of Canterbury in Christchurch is going to be an opportunity to celebrate and also to review progress in ecology in New Zealand. We hope you will be able to come and make this a conference to remember!

The NZES conference will have as an underpinning theme '*the uniqueness of New Zealand ecosystems, and how this is reflected in NZ ecological research*'. The theme will be considered in some overview talks on the first day and also in the four proposed symposium topics for the subsequent sessions. The conference is also being held in conjunction with Systanz so there will be a joint session with that Society including one of the four symposia.

Proposed symposia are:

1. Beech forest ecosystems—how much do we know, and how useful is knowledge in maintaining diversity?;
2. Introduced species as models for ecological/evolutionary questions;
3. Agents of critical decline; and
4. Biogeography (this symposium will be in conjunction with Systanz).

As well as these symposia, there will be the usual sessions of contributed papers on whatever topics people want to offer. We would particularly welcome any talks that introduce new results in the historical context of the last 50 years.

The final theme for the conference, which will come through in the running of it rather than the talks, will bring it firmly into the 21st century. The theme is '*reducing the ecological impact of conferences*'. We hope to run a conference that generates less litter and less CO₂ (maybe less hot air?). More details will come later, but note that probably the greatest impact of the conference comes from travel to the host city (especially air travel). Now is the time to start thinking of a greener way of getting to Christchurch. How about combining the conference with your annual cycling holiday? Get the lateral thinking parts of the brain to work!

CODE OF ETHICS

At the 1999 AGM, it was suggested that New Zealand Ecological Society members should consider whether to adopt a formal code of ethics, and if so, whether the Royal Society of New Zealand's Code of Ethics would be suitable. That code was published twice during 1999/2000, and several calls for comments were issued. At the 2000 AGM in Hamilton, after a brief discussion, members voted to adopt the Royal Society's Code of Ethics with minor amendments. The amended code of ethics will be published in the next newsletter. In the meantime, the Royal Society's version can be seen at: www.rsnz.govt.nz/directory/code_ethics.php

FIFTY YEARS OF PUBLISHING BY THE NEW ZEALAND ECOLOGICAL SOCIETY: WHERE MIGHT WE GO FROM HERE?

The adage that the only constancy is change is as true in scientific publishing as it is for the field of Ecology. Journals must change with new circumstances to maintain their readership. The history of scientific publishing in New Zealand is characterised by sudden changes and the birth and death of journals, particularly in the last 2 decades (Griffith *et al.* 1997). Dave Kelly's review showed an alarming fall in subscriptions for the New Zealand Journal of Ecology (NZJE) during the early 1990s (Kelly 2000) that raises concern about the future of the NZJE.

In a recent article Linklater & Cameron (*in press*) showed how the NZJE has gradually changed from a journal focused on the fundamental ecology of native species and ecosystems to one that is now largely devoted to conservation and management ecology. The majority of papers now published in the NZJE focus on measuring and mitigating the impact of exotic species on native flora and fauna. This change is due to changes in the type of work being undertaken by ecologists in New Zealand and submission bias by New Zealand authors who discriminate between local and international journals depending on the topic of their manuscript. New Zealand ecologists are more likely than their Australian counterparts to undertake applied ecological research and less likely to study the fundamental biology of native species and ecosystems. Moreover, what research they do on the fundamental ecology of native species and ecosystems is more likely to be published in the journals of other countries rather than in their local journals (Linklater & Cameron *in press*).

There are two other trends that were not presented in Linklater and Cameron (*in press*) but which are also pertinent. Firstly, since 1953 there has been a gradual decline in the amount of native species ecology that is being published in the NZJE that is directly proportional to the increase in papers on exotic species and their management (Fig. 1). Thus, there appears to be a trade-off between publishing on native and exotic flora and fauna. Secondly, there was a significant difference in where New Zealand and Australian ecologists published articles that discussed the long-term management of species or ecosystems. Contemporary New Zealand ecologists do not publish articles with conclusions about the long-term management of species and ecosystems in their local journals. In contrast, Australian ecologists published 36% of their articles with a long-term management emphasis in local journals (Fig. 2;

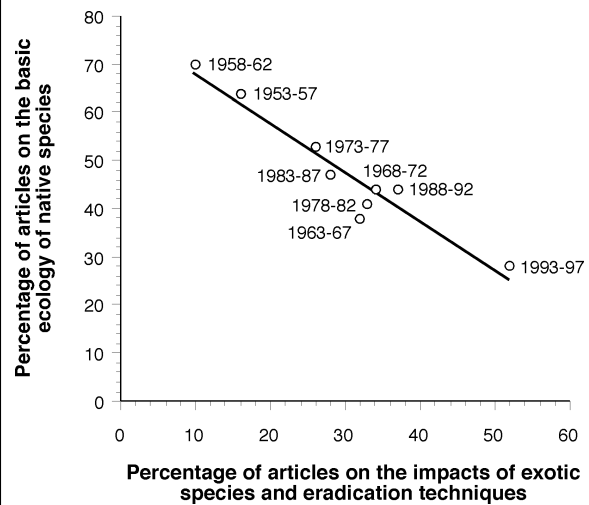


Figure 1. The correlation between the percentage of scientific articles on the fundamental ecology of native ecosystems and their species and the percentage of scientific articles on the impacts and eradication of exotic species in 5 year intervals since 1953. The five-year interval that each data point represents is shown beside it. See Linklater and Cameron (*in press*) for definition of categories, methods and analyses.

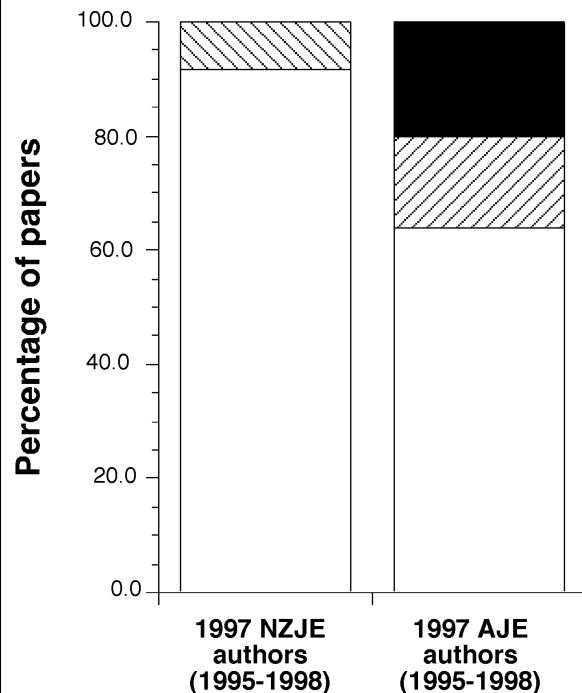


Figure 2. A comparison of the percentage of scientific articles published by contemporary (1997) New Zealand and Australian authors, from mid-1995 to August 1998, in international journals (□; i.e., outside of Australia and New Zealand), journals across the Tasman (▨; e.g., New Zealand Journal of Botany for Australian authors, Wildlife Research for New Zealand authors), other local journals (▩; e.g., New Zealand Journal of Zoology for New Zealand authors, Australian Journal of Marine and Freshwater Research for Australian authors) and the local journal of ecology (■; i.e., NZJE for NZ authors, AJE for Australian authors) that focused on long-term species and ecosystem management. See Linklater and Cameron (*in press*) for definition of categories, methods and analyses.

$\chi^2=7.3$, $df=2$, $P<0.05$; see Linklater & Cameron *in press* for methods and analysis). I suggest that these three trends pose challenges to the long-term success of the New Zealand Journal of Ecology.

The challenge

Most work from New Zealand ecologists on the fundamental ecology of native species and ecosystems is being sent to international journals. This work is clearly of interest internationally and of a high standard. Moreover, although the NZJE now specialises in exotic species ecology, impacts and eradication, it is not attracting articles in this field from Australia or other Pacific-rim nations. Although Australian authors are sending most of these types of manuscript internationally, only rarely are they published by the NZJE (Linklater & Cameron *in press*). Thus, the NZJE is presently losing on two fronts; it is failing to capture local manuscripts that would have historically been destined for it and it is not attracting manuscripts from neighbouring nations in the field it has come to specialise in. Secondly, the NZJE is not publishing manuscripts from New Zealand ecologists that emphasise the long-term management of species and ecosystems. New Zealand authors are publishing all of their manuscripts that emphasise the long-term management of species and ecosystems to journals outside Australasia. Therefore, the focus of the NZJE is at present relatively short-term. This short-term focus is exemplified by the increase in the number of publications on eradication technologies like the aerial broadcasting of poisons (see Fig. 1 in Linklater & Cameron *in press*). These are, by comparison with habitat management, behavioural modification, fertility control or genetic modification, short-term solutions to the problems posed by exotic species.

A solution?

As ecologists we understand that for a species (cf. the NZJE) to survive against more proficient competitors (cf. larger and more prestigious international journals) it must establish its own specialist niche or be deprived of resources (cf. submitted manuscripts and readers) and become extinct. Thus, the New Zealand Ecological Society could attempt one of two strategies of niche specialisation to improve its share of Australasian manuscripts and therefore its future readership. Either it could reverse the trend away from native species and ecosystem ecology and attempt to capture the manuscripts in this area that are currently going overseas, or accept the decline in articles on native species and ecosystems and continue to specialise in exotic and invasive species ecology and management. The former action, if successful, would mean that the NZJE would carve

out a niche for itself as a specialist in the ecology of New Zealand native species and ecosystems. The latter option would mean that the NZJE would carve out a niche for itself as a specialist in the ecology of invasive species and their impact and management in native ecosystems. The former requires “regionalisation”, and the latter “internationalisation”, in focus, emphasis and format of the NZJE. It does not appear possible for the NZJE to do both because there is a limit to the size of the journal and historically there has been a trade-off between the two; an emphasis on native species ecology or applied conservation ecology. I suggest that the second option is much more achievable than the first option and much more likely to secure a future for the NZJE.

New Zealand ecologists want to publish in international journals and will always try to submit their best manuscripts to the journals of other countries so long as the most prestigious journals are not published in New Zealand. Therefore, it will be more difficult for the NZJE to attract the high quality manuscripts on our local fauna and flora that are required to improve its readership internationally. However, the NZJE is already pursuing the second option, even if unknowingly and by default, due to the submission biases of its authors. In fact, the NZJE is, purposefully or otherwise, specialising in a field that is attracting increasing effort internationally; species focused conservation ecology, invasive species ecology and species management. Moreover, the pool of readers interested in species conservation and management ecology is probably larger than that for the ecology of New Zealand’s native flora and fauna. Consequently, I suggest that we should not view the trend away from publishing native species ecology in the NZJE with alarm. Rather we should accept it as an inevitable consequence of changes in the type of ecology undertaken in New Zealand and of author submission bias and encourage the trend to specialisation.

At this time the NZJE notice to contributors reads:

“The New Zealand Journal of Ecology publishes papers on any aspect of pure and applied ecology. Emphasis is on the New Zealand region but information of general ecological interest from elsewhere in the world will be considered for publication.”

I suggest, alternatively, that it should read: *“Conservation & Management Ecology publishes papers and short communications dealing with any aspect of pure and applied ecology that pertains to the conservation and management of populations. Emphasis is on the ecology of invading exotic species, their impacts on native ecosystems and their species, and methods to manage them. Forum*

articles and letters discussing topical fields in ecology are also published. Conservation & Management Ecology welcomes manuscripts from throughout the world.”

By changing its name and outwards emphasis in this way I think the journal that is currently known as the New Zealand Journal of Ecology could attract some of those Australian manuscripts on exotic species that are currently largely going to northern hemisphere journals. It may then also begin to attract more manuscripts that are locally relevant from our other publishing neighbours (e.g., Southeast Asia, South America, and Oceania) whose contribution to the international literature appears to be growing. There are a number of precedents for the change I am proposing, particularly in Australasia. For example, ‘The Australian Journal of Wildlife Research’ became ‘Wildlife Research’ in 1991, ‘Ornis Scandinavica’ became ‘The Journal of Avian Biology’ in 1995, and ‘The Australian Journal of Ecology’ became ‘Austral Ecology’ last year. The Journal of Avian Biology has become a successful international journal and Wildlife Research appears to have increased the manuscripts it publishes from other regions and is growing in size. Austral Ecology appears to be marketing itself to a more international audience by changes in journal format and the notice to contributors. The NZJE might benefit from a similar marketing exercise.

A journal with the term “Ecology” in its title, whether it was of a particular country (e.g., Canadian Journal of Ecology) or more general in its title (e.g., Ecology), was once an indication that the journal dealt in that new and developing field. However, the field of ecology has since matured into several sub-disciplines. Thus, new journals tend to specialise into one of its many sub-disciplines and chose a title that reflects this emphasis (e.g., Molecular Ecology, Behavioral Ecology). New journals rightly avoid titles that imply a narrow regional preference and focus because they understand that they must not limit the pool of available manuscripts and readers by implying only a regional relevance. The ecology, impact and management of exotic and invasive species is clearly where the interest of contemporary New Zealand ecologists lies (Linklater & Cameron *in press*). The journal title I have proposed; “Conservation and Management Ecology”, is only one of many alternatives. A debate on the best possible name and format for the journal that conveys its content to a more international readership and authorship should be encouraged. The solution I suggest is a minor change in practice because the NZJE is already, in all but name only, a journal that specialises in the ecology of exotic and invading

species, their impacts on native ecosystems, and management for conservation (Williams 1990, Linklater & Cameron *in press*). Such a solution requires considerably less effort than the alternative which is to attempt to reverse the international author submission bias and the historical trend to fewer native ecology manuscripts that is being driven by a fundamental change in the types of ecology being undertaken by New Zealanders.

At present, New Zealand has several small generalist journals that compete for a small pool of ecological manuscripts (e.g. NZ J. Zoology, NZ J. Botany, NZ J. Marine and Freshwater Research, NZ J. Ecology, New Zealand Natural Sciences, Proceedings of the Royal Society NZ). I suggest that NZ journals would compete better with international journals if they each specialised by “regionalisation” or “internationalisation”. In this way they might compete less with each other and provide better-targeted alternatives to large international journals for authors and readers. Our society’s 50th birthday is an opportune time to reflect on the past that brought us to this point. A moment of nostalgia and introspection will provide us the motivation and tools to ensure a prosperous future for the New Zealand Journal of Ecology. A pause for debate about the future of our journal and the nature of any change deemed to be required would be time well spent.

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ISSUES IN ECOLOGY: OPEN DEBATE OR ANONYMITY

Open debate in ecology is to be encouraged. In the published literature there are two options for debate. In some cases, non-peer reviewed debate has its place in furthering understanding and eventual resolution of an issue, and editorials, opinion articles, etc. can be used to this end. Peer reviewed open debate should also be supported but I contend that, on a controversial issue, this can often be stifled through anonymity. Many of us have experienced negative peer reviews and there are even claims that occasionally a reviewer, who elects to remain anonymous, plagiarises information from rejected manuscripts to further their own reputation. Such cases are probably rare but are difficult to prove when reviewers hide behind anonymity.

The current open debate in the *Bulletin of the Ecological Society of America* (ESA) (Vol. 18 (3): July, 2000) involves the most recent in the ESA's "Issues" series ("*Biodiversity and Ecosystem Function*"). This is a good current example of a non-peer-reviewed debate being conducted in the open. This contrasts with a long-standing ecological debate, with which I have been involved, that has not always been open, centred around the topic of upland land use and water yield in Otago. Some of the research which embraces this latter debate was presented at a symposium on "Research in the Taieri Catchment" sponsored by Otago University's Ecology Research Group (ERG) in 1998. The keynote speaker at this symposium, Dr Gene Likens, Director of the Institute of Ecosystem Studies, Millbrook, New York, recommended the "Issues" approach, modelled on the ESA series, to communicate significant ecological issues to the interested public. Water yield in relation to upland land use was addressed by several scientists at the ERG Taieri symposium. Taking Gene Likens' advice, the ERG therefore chose "*Upland Land Use and Water Yield*" as the topic for its Issues Paper No 1 (1999). Some of the various approaches that have been used to measure water yield from the Otago upland snow tussocklands, and the results, were outlined at the symposium. These approaches have included the use of paired catchments to compare upland water yields between snow tussockland and exotic pine forest; use of one relatively large and expensive weighing lysimeter with a snow tussock cover, to investigate water and energy budgets; and another using many smaller, much cheaper, non-weighing lysimeters, with alternative covers of snow tussock, short blue tussock and bare soil, to compare their water yields and macronutrient budgets. The results from these

and other studies have been consistent in demonstrating the high water yields obtained from the Otago uplands with a relatively undisturbed cover of snow tussock grassland. The findings, however, and their interpretations, have not been without controversy. Debate has centred around the role and contribution of water, intercepted from fog by the long fine foliage of snow tussocks, on the fog-prone eastern Otago uplands. The issue is not without its political overtones, given the desire of most high country runholders to maximise profits from meat and wool, through grazing domestic stock. Grazing and burning practices, unless conservative, reduce the vigour and structure of the tall snow tussocks, thus reducing their interception surface area. In the eastern Otago uplands, fog is a frequent event, and therefore interception gains from fog, if real, may be maximised by tall tussocks, but reduced in relation to foliage reduction. The political flavour is exemplified by some runholders contracting scientists to assess the evidence for fog interception gains associated with "Snow Tussocks and Water Yield."

Professional scientific societies and their journals have an important responsibility in objectively and impartially airing controversy where it is based on sound science, even if there may be some limitations in research design. In the case of upland water yield research in Otago, such limitations may be associated with lack of replication because of the costly set-up, as with paired catchments, or equipment, as with only one weighing lysimeter. Limitations have also been associated with much cheaper but smaller, non-weighing lysimeters, which, however, had the advantage of combining adequate replication with statistical verification.

The peer review of manuscripts for scientific journals should be professional, objective and impartial. I believe this has not always been the case, based on my own experience. I had cause to suspect the objectivity and professionalism of one of two referees, selected by an editor of Elsevier Science's "*Journal of Hydrology*" to review a manuscript on "*Assessing the hydrologic importance of fog drip from native snow tussock grass on the Otago uplands of southern New Zealand*". I co-authored this paper with Dr Neil Ingraham, an American authority on stable isotope geohydrology, who had a position in the Geology Department at Auckland University. We chose the *Journal of Hydrology* as it had published papers on other water yield studies in New Zealand's upland snow tussocklands, which had concluded that fog deposition is not important in terms of water yield from such catchments. Our paper, based on "a new direction in attempting to answer questions of a long-standing debate on the

contribution of fog deposition on snow tussocks to water yield on the Otago uplands" would obviously have added to this debate in the international literature. We had characterised the stable heavy isotopes of oxygen and hydrogen in samples of fog, and of rainwater, collected from three locations on the Otago uplands. We related these values to the same isotope labels in groundwater samples from the same sites, with periodic sampling through the snow-free season over two years. The editor sent our paper to two reviewers and, not surprisingly, given the publishing record of the journal, one was from New Zealand.

Our paper received reasonable and helpful comments from the overseas reviewer, who also identified himself. This contrasted with what I consider to be a quite unreasonable review by the New Zealand referee who stated, amongst other things, that "The overall standard of the paper is deplorable." This person opted to remain anonymous. The editor, needless to say, rejected our paper. I then suggested to my co-author that we submit the paper to a journal, which was likely to have a different network of referees, with a likelihood of fairer assessment of our contribution to the fog interception debate. I was reassured to have it accepted, following double refereeing and minimal modification, by the editor of one of the journals published by the Australian Ecological Society. The paper has just appeared in *Austral Ecology* 25 (4) and reprints are available on request.

Our innovative approach and its results will now be open for assessment by a wider audience, and hopefully, will contribute to an eventual resolution of this long-standing debate. The issue is actually far from being of merely academic interest since the loss of a snow tussock cover from the uplands, through any form of land use, is essentially irreversible and could permanently reduce the water yield. The outcome of this protracted debate could justify retention of the remaining snow tussock cover in upland water supply catchments at least, on the grounds of its ability to supplement water yield through fog interception gains. Such management could enhance the welfare of future generations in relation to the increasing demands for potable water.

Arising from this issue, I seriously recommend that editors of scientific journals should beware of referees who refuse to identify themselves, as to their possible motives for doing so. I believe that an impartial referee should be willing to have their name associated with their comments on manuscripts and also, that objective and constructive professional refereeing, with the referee(s) revealed, should be acceptable to any competent author(s). Also relevant is item No 4 of the Royal Society of New Zealand's

"Code of Professional Standards and Ethics" (1999) which states, under the heading "Relationship with Colleagues": "*Members shall support ethical behaviour, and high professional standards, in relationships with their New Zealand and overseas colleagues.*"

Responses of readers of this article (and our paper) would be welcomed.

Alan F. Mark,
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UPCOMING CONFERENCES

August 27-30, 2001

New Zealand Ecological Society Conference
Christchurch, New Zealand.

Contact: n.judson@botn.canterbury.ac.nz for more details.

ECOLOGICAL MANAGEMENT AND RESTORATION

A new journal to help environmental managers

Never before have ecosystems been subjected to this magnitude of urban and industrial pressures—yet never before have there been so many individuals and organisations been prepared to do something about it. But do we have enough reliable and relevant information to direct our resources where they can make a real difference?

A new journal is being established by the Ecological Society of Australia (ESA), with assistance from the Land and Water Resources Research and Development Corporation (LWRRDC). This collaboration is motivated by recognition of the growing need among land managers for reliable and relevant technical and ecological information.

Over the past 20 years, our communities and governments have become increasingly aware of the need for improved management of the natural resources upon which our lifestyles depend. Yet there is a wide and perhaps growing gap between the perspectives and understanding held by ecologists and those held by those who carry much of the responsibility for on-ground management of Australian ecosystems.

To help bridge this gap, ESA and LWRRDC have jointly agreed to fund the establishment of an Australian ecological restoration and management journal, to be run by the ESA. This journal is dedicated to providing a two-way communication between ecologists and on-ground managers and to convey the findings of both science and practice to

the endusers—the land managers across Australia and our broader region.

The editorial philosophy of *Ecological Management & Restoration* emphasises the scientific nature of the discipline of restoration and ecosystem management, while allowing the journal to acknowledge the discipline's role in redressing past mistakes and fostering future solutions.

“Ecological management and restoration is the process of maintaining and repairing plant and animal communities within a context of biodiversity conservation and ecologically sustainable utilisation.”

The effective practice of ecological management and restoration depends upon a two-way collaboration between ecologists and field managers to devise new hypotheses, sound experimentation, effective treatments and reliable monitoring.”

The journal is seeking contributions that:

- stimulate discussion of ideas and techniques relevant to the restoration and management of ecosystems;
- provide an ongoing source of technical information and other educational support for those involved in on-ground management of ecosystems.
- report and interpret the practical implications of recent research;
- report and evaluate the results, successes and failures, and critical factors of past and current restoration and management projects;
- help link on-ground managers to existing scientific knowledge and research capability; and
- provide an effective link for information flow and co-learning between restoration and management projects.

While the main focus is the management and restoration of plant and animal communities, cross-disciplinary contributions involving socio-economic and cultural aspects of ecosystem management are encouraged.

And a range of formats are sought

(Note: format types 8-10 will be peer reviewed by qualified people from both science and practice.)

1. bodyletters (<300 words)
2. news items or notices of events (<300 words)
3. guest editorials (1000–1500 words)
4. comment pieces (1000–1500 words)
5. short technical or research notes (1000–1500 words)
6. publication reviews (600–1000 words)

7. feature articles, interviews and profiles (2000–4000 words)
8. review articles (invited) (4000–6000 words)
9. technical reports (4000–6000 words)
10. research reports (4000–6000 words)

Who would contribute to —and read—the journal?

The journal is dedicated to providing a forum for exchanges between scientists and non-scientists working on ecosystem restoration and management at all tiers of government, community and industry. So contributions are encouraged from all involved in the ambitious project of conserving and sustaining our ecosystems. It is hoped that the same groups will enthusiastically subscribe to their new journal.

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For information on the listserv contact the newsletter editor (rossj1@tui.lincoln.ac.nz) or myself at d.kelly@botn.canterbury.ac.nz. For information on the Australian listserv contact Dave Kelly.

Web page

To obtain additional conference details contact the NZ Ecological Society website: www.nzes.org.nz. This site also has membership details, information on awards and prizes, information on submitting papers to the journal and links to overseas ecological organisations.

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Contributions for the newsletter – news, views, letters, cartoons, etc. – are welcomed. If possible, please send articles for the newsletter both on disk and in hard copy. 3.5" disks are preferred; MS Word, Word Perfect or ASCII file text, formatted for Macintosh or MS-DOS. Please do not use complex formatting; capital letters, italics, bold, and hard returns only, no spacing between paragraphs. Send disk and hard copy to:

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