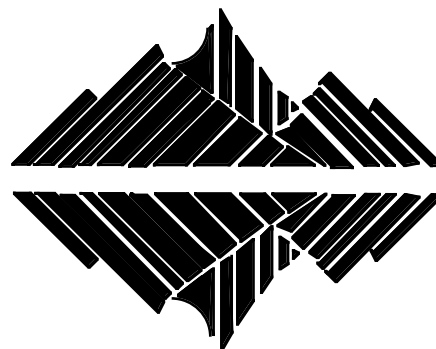


Ecological Society Newsletter

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FROM THE EDITOR

I thought I would start this newsletter with some observations and comments on a couple of recent developments of interest to ecologists. Some of you may have seen the figures released by statistics New Zealand on changing land use and domestic stock numbers in New Zealand over the past eight years. There are some interesting trends:

- pasture and arable land down by 12% to 12 million ha
- plantation forestry up 26% to 1.9 million ha
- horticulture up 6% to 0.1 million ha

To put those figures into context, New Zealand has 9.1 million hectares in the conservation estate and 6.4 million hectares of indigenous forest.

- sheep flock is down 25% to 39.5 million
- dairy cattle are up 34% to 5.2 million (South Island dairy cattle up 160% to 1.3 million)

In comparison, MFE's 1997 State of the Environment Report¹ puts the numbers of wild possums in New Zealand at 70 million, feral goats at 300,000–1 million, wild deer at 250,000, feral pigs at at least 300,000.

It's interesting to think about what these trends mean for this land of ours. What do these changes mean for the state of our biodiversity, our waterways, our estuaries? Is the extra plantation forestry and less farmed land a good or a bad thing? Does less sheep mean less hill country erosion, does more planted trees mean less net CO₂? Will the extra dairy cows pollute the streams of the Canterbury and Southland to the same extent as they have in Waikato and Taranaki? Do we really know, and if we do, is anybody doing anything about it? Do we as ecologists contribute to the debate?

New Zealand now has an association of environmental practitioners. The Environment Institute of Australia and New Zealand (EIANZ) was formed in

¹ MINISTRY FOR THE ENVIRONMENT. 1997. The state of New Zealand's environment. Ministry for the Environment, Wellington, New Zealand.

May this year, adding a New Zealand branch to the former EIA (see page 6 for details). I see this is a significant development for ecologists and environmental practitioners in New Zealand. Back in issue 101 (March 2002), I discussed whether NZES should consider accreditation for professional ecologists to cater for the growing number of environmental consultants and freelance ecologists and the increasing importance of resource consents, environmental impacts assessments and remediation measures under the RMA. The Buller District Council wanted to know—who are the expert ecologists? How do we know if this person can be trusted to produce a

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credible report? NZES has tossed this issue around for several years and never felt ready to bite the bullet. Well now it seems EIANZ has stepped into the breach. The institute offers several levels of membership that effectively amounts to accreditation for members and fellows. It even offers indemnity insurance to its members. The institute also offers a newsletter, conferences, student mentorship. Perhaps this represents competition to NZES? Perhaps some of our members will want to join this new institute? Quite possibly, but I see EIANZ as complementary to NZES and fulfilling a useful and important role alongside NZES and many people will join both organisations. NZES can concentrate on what it does best—supporting and disseminating the science of ecology, through the journal, the conferences and the scholarship of its members. Environmental practice will only ever be as good as the science that underpins it—and for that, they need us.

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SUBS PAYMENT REMINDER

Payment of subs for the 2003 year were due on the 15th February. If at the time this newsletter was printed, you had not paid for this year you will notice that on the mailing label used to post out this newsletter a note “2003 unpaid”. If you see this on your copy, and you haven’t just sent in your money, you are in arrears. Please send your payment as soon as possible to the Secretariat (address on back page).

OBITUARY DR NIGEL BARLOW

Dr Nigel Barlow died on the 4th of June 2003 aged 53 after a courageous battle with cancer. Over the last 25 years Nigel made an enormous contribution to New Zealand ecosystem science through the use of mathematically-based computer models to understand how and why animal populations fluctuate. In particular, he worked on insect pests like grass grub and vertebrate pests like possums. His contribution was critical to the development of ecologically-acceptable ways of dealing with such problems. For example, his bovine TB model has played a central role in current strategies for the prevention of spread of this disease. That Nigel was exceptionally capable was reflected in his consistent ability to gain funding from the prestigious Marsden Fund. He was also an excellent

scientific writer. He was the editor of the *New Zealand Journal of Ecology* and later, the London-based publication the *Journal of Applied Ecology*. In 1996, Nigel received the *New Zealand Ecological Society Award* for his outstanding contribution to applied ecology.

Nigel completed his PhD at the University of East Anglia in 1977 and in 1979 arrived in New Zealand working initially in Palmerston North and for the last 12 years for AgResearch Limited at Lincoln. That Nigel moved to Canterbury was no coincidence; he had an abiding love of the mountains of which he made meticulously detailed scale models but most of all, he never lost his enthusiasm for climbing the peaks in the Southern Alps and elsewhere.

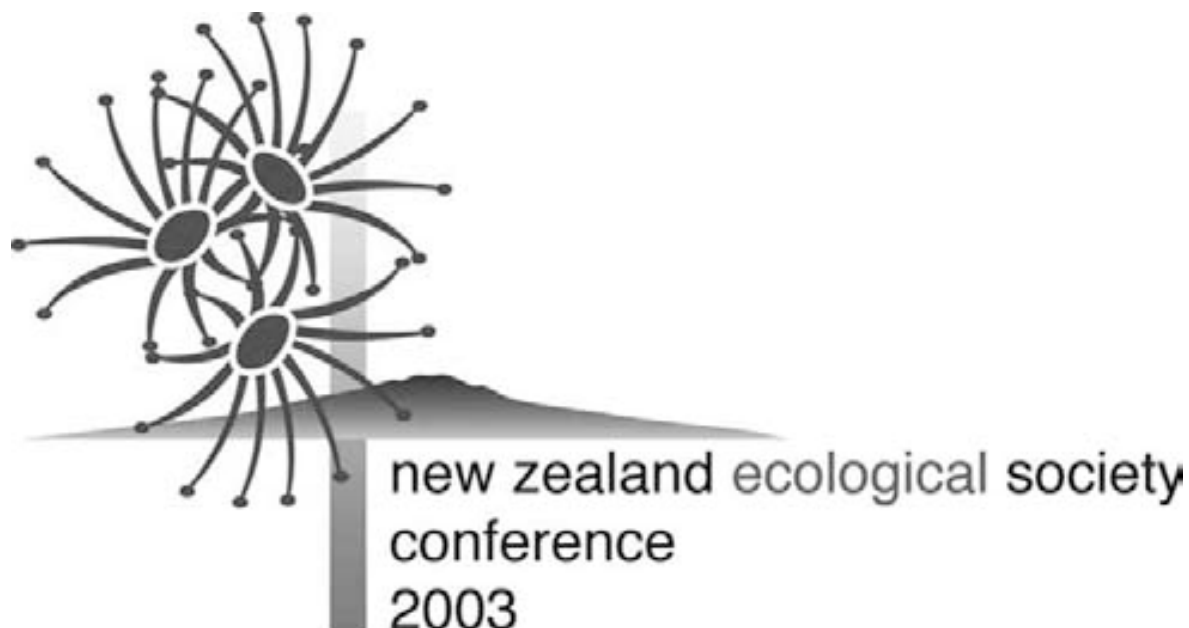
As a true polymath, Nigel was enthusiastic about all natural history and geography generally. In particular, he developed a detailed knowledge of bird-winged butterflies. He published on these extraordinary butterflies and at the same time produced expert films and videos illustrating their natural history. These were often screened to his dinner guests who showed varying ability to come to grips with this important work. More latterly, particularly after he became unwell, Nigel took up oil painting and set up a small art group that used to meet on Tuesdays at his house. This well-attended and mildly competitive event was looked forward to by many of his friends who, with his encouragement, produced some unexpectedly good paintings. Indeed the whole group became better informed and more enthusiastic about art generally. Nigel’s excellent alpine paintings are well known to his peers; he showed particular regard for Douglas Badcock’s work. Indeed, they became known to each other and at one stage the two painted together.

At home, Nigel was incredibly enthusiastic about lots of things and had an excellent eye for detail. At work, he was resistant to bureaucratic interference and very good at his science. His motivation and diverse interests were contagious and he graciously passed on his abilities and insights to his students and numerous admiring colleagues.

Stephen Goldson
 AgResearch

Nigel always had a very active role in NZES over the years. He served as a Councillor from 1980–1982 shortly after he arrived in New Zealand, and performed the very important role as editor for the NZJE for volumes 8 to 14 spanning the years 1984 to 1990. His papers at the annual conference were always memorable and his contributions to New Zealand ecology have been vast. He was justly rewarded in 1996 with the New Zealand Ecological Society Award.

THE ANNUAL CONFERENCE OF THE NEW ZEALAND ECOLOGICAL SOCIETY NOVEMBER 16–20 2003



Theory and application in ecology

The organising committee invites you to attend and participate in the NZES annual conference in Auckland to be held 16–20, 2003. The programme will include keynote speeches, the annual dinner, field trips on 19 November. There are sponsored prizes e.g. best student presentations. The conference will be hosted by The University of Auckland. The student day is the 16th, the conference days 17th, 18th, 20th.

In the next issue of the newsletter (due in August), we will be calling for papers in symposia and contributed sessions. The symposia planned emphasis the integration of applied and theoretical concepts to understanding and managing ecological systems. They include:

- What is the role of modelling in ecology?
- Ecological monitoring
- Restoration ecology/ reconstruction of past environments
- Endangered species management
- Effect of introduced biota on native/endemic ecosystems

Visit the website at <http://www.sbs.auckland.ac.nz/ecolsoc2003/> for more details. All speakers will be expected to submit an electronic version with a proposed title and 200-word abstract for publication in the conference proceedings. Further announcements will be made in the coming months. Early registration and abstracts will be due by September 30.

Early registration fees (before 30 Sep):

Members	\$175
Non-members	\$245
Unwaged	
student members	\$80
other	\$175

Late registration fees (after 30 Sep):

Members	\$200
Non-members	\$270
Unwaged	
student members	\$100
other	\$200

General inquiries can be sent to:

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NEW E-MAIL ADDRESSES FOR OFFICE HOLDERS

You may have noticed that the e-mail address I used on the cover of this newsletter has changed. I can now be reached at newsletter@nzes.org.nz. Indeed, all the office holders of the NZES now have e-mail addresses that are similarly named (secretary@nzes.org.nz, treasurer@nzes.org.nz, etc—see the back page for the full list). This will ensure continuity of e-mail delivery when roles are changed within the society. These e-mail addresses are easy to remember, so perhaps when you are surfing in an internet café, you may be inspired to e-mail the secretary, treasurer etc and won't have to look up the address!

PROFILE OF JOHN OGDEN – ELECTED TO HONORARY LIFE MEMBERSHIP OF THE NZES

At the 2002 conference in Cairns, NZES announced the award of life memberships to John Ogden. Robin Fordham kindly wrote up this profile for the newsletter.

It is wholly appropriate that the NZES elected John Ogden to life membership. John is an outstanding international ecologist with deep knowledge of plant populations, especially forest dynamics, and extraordinarily broad interests in all things ecological.

John took up a lectureship at Massey University in 1968, fresh from Bangor, Wales, where he had completed a masterate in the tropical forests of Guyana, and a PhD on populations of the composite *Tussilago farfara* under the renowned John Harper. These two studies of very different plant systems, (one mainly above ground, the other significantly below ground), provided the framework for much that has followed in John's research.

John was a NZES Councillor from 1970–74 when environmental awareness was emerging here. He contributed vigorously to the Society's 1974 benchmark *Population Statement* and, after criticism of it by a sister Society, characteristically participated in a spirited debate on the significance of stones in soil analyses! John then moved to ANU for a Research Fellowship involving the dendrochronology of *Athrotaxis* spp. until 1979 when he returned to a senior lectureship at Auckland University.

John has helped convene two conferences, and began the popular quasi-annual 'ecology buzz group' for post-grads and staff. His own conference papers have always been lively, challenging, and memorable—for instance the amusing review of a slowly sinking Great Barrier Island at the 2001 Christchurch conference! A major influence on

ecological education in New Zealand, John encourages students with his scientific rigour, strong field ethic, and warm humour.

It would be difficult to overstate John's powerful influence on forest ecology here and globally. He has worked with great energy on the dynamics of various species, particularly beech, kaikawaka, and kauri; on age profiles and regeneration patterns in live and fallen forests, especially employing dendrochronology; and on ancient swamp and dry land plant communities by means of palynology. Having deep interests in evolution and ecological processes, John has an exceptional ability to understand the significance of ecological phenomena, and to cross relate them. He has published numerous book chapters, and well over 100 papers, often with others, on a wide range of topics. In 1994 he was awarded a DSc from the University of Wales.

Throughout his career, John has strongly espoused conservation and has been authoritative in national issues such as milling in Whirinaki and S.I. beech forests, and land use problems in Auckland and on Great Barrier Island. Above all, he has enthusiastically illustrated the complexity of plant population processes through time. We have all benefited.

Assoc. Prof. Robin Fordham,
Ecology Group, Massey University

In reply to a letter advising him of the award, John Ogden made some interesting observations that seemed worthy of relating here. John was happy to have part of his letter reproduced below.

Thank you for informing me that I have been awarded honorary life membership of the New Zealand Ecological Society. I am deeply honoured by this. While it is true that I have been involved with the Society since I came to New Zealand in 1968 and helped to organise a couple of conferences, I do not seem to have been very active in the society of late. It is very gratifying to have my wider efforts in teaching and supervision recognised by the Society.

The New Zealand Ecological Society plays a unique role in ecology and conservation in New Zealand. It has always been a closely knit and friendly group. The first conference I attended (Dunedin) was the origin of many friendships that I have valued and enjoyed ever since. Of late, there has been a move in the membership towards people employed in resource management, or other applied ecology issues. Having informed and responsible people in positions of authority in this regard is important for the future of our biota, but the shift in emphasis has also pointed out the need for much basic data. Informed decisions rely on good background data. Descriptive ecology should not be forgotten in New Zealand, where there is still much

interesting ground-work to be done. I know that the Society espouses the broader view of Ecology, and I hope it will continue to publish good descriptive works in its journal—I intend to continue sending them from time to time!

John Ogden
SBS, University of Auckland

Keep them coming John!

PROFILE OF PHIL COWAN – 2002 WINNER OF THE TE TOHU TAIAO AWARD FOR ECOLOGICAL EXCELLENCE

At the 2002 conference in Cairns, NZES awarded the Te Tohu Taiao to Dr Phil Cowan. Clare Veltman kindly wrote up this profile for the newsletter.

Phil Cowan, recipient of the Award for Ecological Excellence, began his research training by chopping short the bum hairs of caddisfly larvae. This caused them to build super-long houses, thus escaping his reach one presumes. By now hooked on animal behaviour, Phil enrolled in a PhD on neophobia in rats. He got started in Glasgow and finished in Canberra at ANU, having discovered that Scottish rats were much more cautious than Aussie ones (see his paper in the *Journal of Comparative and Physiological Psychology*). Having along the way dabbled with plague rats, which erupt (only it sounds like erupt when he's telling the story), Phil was eminently qualified to begin research into mouse plagues with Alan Newsome at CSIRO Division of Wildlife Research. Along the way, Phil spent a year working in India at the Central Arid Zone Research Institute of Rajasthan in Jodhpur, and at the University of Agricultural Sciences at Bangalore. His research addressed rodent pest control issues like bait shyness and toxin testing, which is maybe why he concluded that the world's best curries were still to be found in Glasgow. Phil and his wife Nan arrived in New Zealand in July 1977 with a parting gift of three dozen nappies from their Australian workmates and a job at Ecology Division of DSIR, researching possum biology. It must've been a very wet July—Phil recalled doing wheelies with Bob Brockie at the Mt Vic lookout in Wellington, and watching someone's washing slowly decompose during three weeks of incessant rain. In the 1970s and 1980s, the responsibility for possum control rested with the Forest Service and there was "a certain freedom" to pursue fundamental questions about possum reproduction, feeding and demography at Ecology Division. Fifteen years, 50 papers and the changeover from DSIR to Crown Research Institutes later, Phil and colleagues were well-positioned to focus on possum biocontrol at

Landcare Research in 1992. The concept of exploiting immune mechanisms and using viruses or other vectors to transmit foreign proteins in a pest population was being actively researched for rabbit, fox and mice control in Australia. By collaborating initially with Prof. John Rodger at the University of Newcastle and then with scientists linked to the Marsupial Cooperative Research Centre, Phil and his team moved immunocontraception in possums from a concept to a laboratory reality in a very productive decade of research. Last year, in spite of appearing not to own a suit, Phil was appointed the science manager for Landcare Research's Biosecurity and Pest Management portfolio. In his spare time he plays golf, except in the dark when he enjoys music and books.

Dr Clare Veltman
Department of Conservation.

CALL FOR APPLICATIONS – BEST PUBLICATION BY A NEW RESEARCHER

Every year the NZES awards a prize of NZ\$200 for the best ecological based paper published by a new researcher. This award is targeted at society members who are at the start of their research career. The award will be presented at the NZES's annual conference in Auckland (November, 2003) and will be 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 four copies of their publication to the NZES Awards Convenor no later than **25 August 2003** (Alison Evans, Department of Conservation, Private Bag 4715, Christchurch). 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.

For more information on NZES awards and prizes, see our Awards webpage <http://www.nzes.org.nz/awards.html>

Alison Evans,
Awards Convenor.

IANZ LAUNCHES NEW ZEALAND CHAPTER



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Sustaining the Environment with Excellence in Environmental Practice.

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THE Professional Association for Environmental Practitioners.

The professional Association for Environmental Practitioners

On 9 May 2003, a New Zealand chapter of Environment Institute of Australia was launched and the organisation renamed itself Environment Institute of Australia and New Zealand (EIANZ).

I have extracted some information from their website to describe what the organisation does and will do in New Zealand and Australia.

“The Environment Institute of Australia and New Zealand is the professional association for environmental practitioners. Formed in 1987, the EIANZ has an Australia-wide membership in the public and private sectors. The Institute’s principal objectives are to promote environmental knowledge and advance ethical and competent practice whilst facilitating interaction amongst environmental professionals. The Institute is genuinely multi-disciplinary, formed specifically for those who work in any of the numerous aspects of environment such as management, planning, education, law, industrial operations, research, and audit.

“Through our local presence in every State and Territory and a national council, we offer conferences, workshops, publications plus professional networking and development services.

- President: Simon Molesworth
- Executive Director: Slawka Bell
- Membership and Internal Communications Officer: Felicity Kelly
- Publications: *EIANZ Newsletter* and *Australian Journal of Environmental Management*
- Membership: 1800”

The New Zealand committee was elected at the May launch:

- Vice-President (NZ): Peter Skelton
- Councillor: Laurie Jackson
- President: Ton Bührs
- Vice President: Johanna Rosier
- Treasurer: Zefanja Potgieter,
- General Committee Members: Mr. Leo Fietje, Ljubica Stojnic, Ian Spellerberg

A range of types of memberships are offered:

- Honorary Life Member (HLEIANZ)
- Fellow (FEIANZ) (By invitation)
- Full Member (MEIANZ) (A tertiary degree plus a minimum of two years professional experience in environmental practice; or, five or more years of experience in functional areas of environmental practice). A\$190 includes subscription to *Australasian Journal of Environmental Management*.

- Associate (Graduates in the process of gaining relevant work experience, and individuals wanting access to EIA information who are not eligible for full membership status). A\$100 or A\$140 with journal.
- Student Member (Individuals undertaking environmental or related courses of study at tertiary level) A\$36 or A\$76 with journal.
- Library Member (receive a subscription to the EIANZ Newsletter).

Further details and membership forms can be obtained from the Institute website: <http://www.eianz.org/>.

CALL FOR NOMINATIONS – THE 2003 TE TOHU TAIAO AWARD FOR ECOLOGICAL EXCELLENCE

The NZES award is made annually to recognise society members who have made an outstanding contribution to the study and application of ecological science. The award is made to the person(s) who have published the best original research into the ecology of New Zealand, and its dependencies (including the Ross Dependency), in the previous two calendar years, or the person(s) who have made the most outstanding contribution to applied ecology, particularly conservation and management, in New Zealand and its dependencies over the same period. If you wish to nominate a person for this award or have any queries about the NZES awards please email the NZES Awards Convener, Alison Evans, at awards@nzes.org.nz, or post your nominations to Alison at the Department of Conservation, Private Bag 4715, Christchurch. Nominations close on **1 September 2003**.

Alison Evans,
Awards Convener.

A BIT OF CAUTION WITH THE AUSTRALIAN JOURNAL OF ECOLOGY CITATION INDEX – REPLY FROM DAVID WARDLE

Gábor Lövei (*NZES Newsletter*, February 2003) claims that the fact that the 2001 Science Citation Impact Factor for the *New Zealand Journal of Ecology* (NZJE) is greater than that of our Australian counterpart is merely an anomaly resulting from the recent name change of the latter journal from the *Australian Journal of Ecology* (AJE) to *Austral Ecology* (AE). However, this claim is incorrect.

The Impact Factor for 2001 for any given journal is calculated as follows:

(Number of citations in 2001 to articles published in that journal in 1999 and 2000)

(Number of articles published in that journal in 1999 and 2000)

In 1999 our Australian counterpart was known as the *AJE*, and in 2000 it was known as *AE*. The 2001 citation index list by ISI gives *AJE* a citation index of 1.323 (based on citations in 2001 of papers published in 1999) and *AE* a citation index of 0.658 (based on citations in 2001 of papers published in 2000). During 1999 *AJE* published 64 papers, while during 2000 *AE* published 74 papers. Based on this information we can calculate what the impact factor of our Australian counterpart would have been had it not had a name change, i.e. $((64 \times 1.323) + (74 \times 0.658)) / (64 + 74)$, or 0.966. This is well below the comparable value of 1.404 for *NZJE*. This data suggests that despite the claims of *AE* to be the 'premier journal of Southern Hemisphere ecology', *NZJE* is actually having a greater impact on the global scientific audience. In this light, the basis for Gábor's claim cannot be justified.

David Wardle,
Scientific Editor, *NZJE*

HOT SCIENCE!

Here is the latest instalment of international papers, books and book chapters from New Zealand researchers. We want to have this list as complete as possible for items published internationally after 2000 so don't be shy – if your paper has not yet been listed let me know about it – the rules for submission are at the end of the listing and are on the website <http://www.nzes.org.nz/hotscience/rules.html>. The list on the website is now fully searchable and is now easier to navigate around thanks to our wonderful Webmaster. This will make the list, a valuable place to search for New Zealand ecological papers, chapters and books – but will be stronger if it is complete. So, please send your summaries to me. Send them in anytime, I will accumulate them for the next listing.

Gillman, L.N. & Ogden, J. 2003. Seedling mortality and damage due to non-trophic animal interactions in a northern New Zealand forest. *Austral Ecology* 28: 48–52.

The influence of mammal browse on indigenous tree seedlings has been extensively studied in New Zealand. However, the importance of non-trophic damage by animals (such as biting and uprooting without consumption) has received little attention. In this study, seedling mortality due to non-trophic animal damage (37.5% of all mortalities) was greater than for any other cause. Most of the seedlings non-trophically damaged were bitten off close to the ground and left uneaten (73%), and the remainder were uprooted. Evidence is presented that suggests that the non-trophic damage to these seedlings was caused by rabbits.

Holzapfel, S. 2001. Studies of the New Zealand root-parasite *Dactylanthus taylorii* (Balanophoraceae). *Englera* 22: 1–176.

New research on flower anatomy, seed development, germination, vegetative reproduction, infection of host trees and genetic diversity of the endemic root-parasite *Dactylanthus taylorii*. A number of misinterpretations and generalisations in the literature about the family and the species itself are clarified. The anatomy of the female flower is described at various stages of development and the embryo of *D. taylorii* is described for the first time. Seeds are able to germinate without the presence of a host tree. RAPDs show genetic distinctness of even neighbouring populations and did not support the occurrence of monocy in *D. taylorii*. Includes illustrations.

Holzapfel, S., Faville, M. & Gemmill, C.E.C. 2002. Genetic variation of the endangered holoparasite *Dactylanthus taylorii* (Balanophoraceae) in New Zealand. *Journal of Biogeography* 29: 663–676.

Genetic variation among seventeen populations from the entire known range of the endemic root parasite *Dactylanthus taylorii* is studied using RAPDs. Markers show that all sampled populations are unique and can be grouped into two main clusters, corresponding to an eastern and western distribution separated by the Taupo Volcanic Zone. Observed genetic variation is predominantly among as opposed to within populations and is not correlated with geographical distance below the regional scale. Results indicate long isolation and restricted gene flow among populations and are interpreted mainly as characteristics of the species. The role of vegetation disturbance through volcanism is discussed.

Keedwell, R.J., Sanders, M.D., Alley, M., & Twentymann, C. 2002. Causes of mortality of black-fronted terns (*Sterna albostrigata*) in the Ohau River, South Island, New Zealand. *Pacific Conservation Biology* 8: 170–176.

The carcasses of 148 Black-fronted terns *Sterna albostrigata* found during the 1998–2000 breeding seasons on the Ohau River were examined to determine causes of mortality. Predation was the primary cause of mortality of adults, juveniles and chicks, resulting in 47% of all deaths. Feral cats *Felis catus*, Norway rats *Rattus norvegicus* and, to a lesser extent, stoats *Mustela erminea* were the main predators responsible. The prey remains left by the different predator species are described. Predators are potentially the main cause of population decline in black-fronted terns and predator control during the breeding season should be trialled.

Keedwell, R.J., & Sanders, M.D. 2002. Nest monitoring and predator visitation at nests of banded dotterels. *The Condor* 104: 899–902.

We used video cameras to monitor nests of the banded dotterel (*Charadrius bicinctus*), to test whether conventional nest monitoring increased the chances of nests being visited by predators. We compared the predator visitation rates to 22 video-monitored nests, which were approached on foot daily to simulate conventional monitoring, with that of 17 nests that were monitored using video cameras only. Predator visitation rates did not differ, nor was there

any evidence that predators used human scent trails to locate nests. This study provides evidence that monitoring banded dotterel nests by regularly checking them does not influence their risk of predation.

Leathwick, J. R., & Whitehead, D. 2001. Soil and atmospheric water deficits and the distributions of New Zealand's indigenous tree species. *Functional Ecology* 15: 233–242.

This paper explores relationships between native tree species distributions and climate, with a particular focus on water relations. Results highlight the likely role of föhn winds that produce very high air saturation deficits in explaining the low abundance of many species east of New Zealand's main mountain ranges. They also suggest that reduced rainfall in dry years is more important in affecting species distributions than long-term average rainfall.

Leathwick, J. R.; & Austin, M. P. 2001. Competitive interactions between tree species in New Zealand's old-growth indigenous forests. *Ecology* 82: 2560–2573.

This paper presents results of an analysis that uses the *Nothofagus* disjunctions as a natural removal 'experiment' to quantify the effects of competition from these patchily distributed species on other widespread tree species. Relationships between species distributions and environment are first analysed using multiple regressions, and then the magnitude of competition effects are assessed by adding statistical terms describing *Nothofagus* abundance. Results indicate that many species are substantially reduced in abundance in the presence of *Nothofagus*. In addition, both the shape of species responses to annual temperature and their optima vary as *Nothofagus* abundance increases.

Leathwick, J. R. 2002. Intra-generic competition among *Nothofagus* in New Zealand's primary indigenous forests. *Biodiversity and Conservation* 11: 2177–2187.

This paper extends the analysis described in Leathwick & Austin (2001) by considering competitive interactions within the genus *Nothofagus*. Species responses to environment were first assessed using multiple regressions, to which were added terms to assess changes in both overall abundance and species responses to annual temperature with increasing numbers of congeners. Results indicate that variation in abundance along the annual temperature gradient is strongly influenced by the competitive context provided by the remaining congeners. Red and silver beech also appear to behave in a mutualistic fashion, reaching greater abundance when growing together than when growing with other species.

McAlpine, K. G.; Drake, D. R. 2003. The effects of small-scale environmental heterogeneity on seed germination in experimental treefall gaps in New Zealand. *Plant Ecology* 165: 207–215.

Seed germination of native and exotic woody species was studied in treefall gaps to assess how environmental heterogeneity affects regeneration from seed. Gaps were created in a relic pine plantation destined for restoration to native forest. Seeds of *Alectryon excelsus*,

Macropiper excelsum, *Fuchsia excorticata*, *Cytisus scoparius* and *Berberis darwinii* were sown in sites differing in exposure, with and without 3 cm of pine litter. Effects of litter and degree of exposure on germination varied with species. Results suggest that microenvironmental heterogeneity can be an important influence on the species composition of regenerating vegetation within and around treefall gaps.

Pierce R.J.; & Westbrooke I.M. 2003. Call count responses of North Island brown kiwi to different levels of predator control in Northland, New Zealand. *Biological Conservation* 109: 175–180.

This paper evaluates whether there are any trends in call counts that relate to predator control and advocacy in and around 23 kiwi listening stations monitored in Northland since 1995. Both predator and advocacy effort were rated on a 0–3 scale at each listening station, and kiwi calling rates analysed in a generalised linear model. An ANOVA indicated a positive response of call counts to predator control. There was a weaker relationship with advocacy, but because predator control and advocacy are correlated, it was not possible to separate their effects. Overall, the analysis suggested that this kind of management is benefiting kiwi in Northland.

FUNDING & RESEARCH OPPORTUNITIES

Funding for conservation and restoration research on Tiritiri Matangi Island

The Supporters of Tiritiri Matangi Inc, a community group comprising some 1,300 members, provides active support and funding for the Dept of Conservation restoration programme on Tiritiri Matangi Island, Hauraki Gulf, NZ.

We want to encourage and support research on conservation and restoration of Tiritiri's ecology, history and cultural resources. To assist persons or organisations in conducting such research on the island, we have available a range of research grants.

Please visit our website to download grant application forms: <http://www.tiritirimatangi.org.nz/SoTMResearch.htm>

There are two dates for funding applications – 28 February and 31 August of each year.

Graham Ussher,
SoTM committee member.

Opportunities for Research – Waituna Lagoon, Southland

Waituna Landcare Group (WLG), a group of landowners who are working to ensure the future health of Waituna Lagoon, are interested in encouraging researchers to work on this unique ecosystem.

Waituna Lagoon is a large, oligotrophic waituna-type lagoon on the southern coast of the South Island, near Invercargill. The Lagoon is a dynamic system,

periodically open to the sea for long periods, then closing through natural coastal sedimentation processes. The biology of the Lagoon is distinctive, with aquatic vegetation dominated by *Ruppia* and a diverse wetland plant flora in the margins. The Lagoon is thought to be the local centre of abundance for a number of native fish species, and is home to over eighty species of birds.

The lagoon and surrounding wetlands are a RAMSAR site. Unfortunately, changes in catchment land use mean that water quality entering the Lagoon is poor, and there are ongoing changes in terms of nuisance algal blooms and sedimentation.

The WLG are keen to encourage researchers and their students to work on Waituna Lagoon with the aim of building a knowledge base to better advise management decisions. While not able to financially support students, the Group are willing to enter into collaborative applications for funding and to provide limited logistic support and advice to anyone wanting to study any aspect of the Lagoon.

Questions of particular interest to WLG:

- Changes in botanical communities since a previous botanical survey of the Lagoon in 1995.
- Changes in extent of botanical or shoreline features using remote sensing.
- Research on any aspect of Lagoon fisheries.
- Processes driving Lagoon opening and closure.
- Modelling of nutrient and sediment fluxes through the Lagoon.
- Modelling or description of circulation patterns in the Lagoon.
- Development of catchment models of nutrient supply.

I would be happy to discuss with anyone the options for working in this exciting system.

Dr. Ross Thompson
Ryder Consulting Ltd.
Ph. 03-4772113

E-mail r.thompson@ryderconsulting.co.nz

UPCOMING MEETINGS

Society for Environmental Toxicology and Chemistry (SETAC) Asia/Pacific– Australasian Society for Ecotoxicology (ASE) Conference: Solutions to Pollution. Convention Centre

28 September – 1 October 2003, Christchurch.

The conference theme: “Solutions to Pollution” reflects a desire to address practical solutions to environmental issues facing the Asia/Pacific region. Although the programme will focus on issues relevant to the Asia/Pacific region, it will cover exciting topics of interest to scientists and regulators from other parts of the

world. We plan to include special courses and workshops in association with the meeting. Please contact us soon if you are interested in running a course or workshop at this meeting.

<http://www.ecotox.org.au/nz2003>

Invertebrates and Environmental Change, combining the Australian Entomological Society annual conference and the 6th Invertebrate Biodiversity & Conservation conference

28 September – 3 October 2003, Hobart, Tasmania.

The conference organising committee invites you to attend the 34th Australian Entomological Society/ 6th Invertebrate Biodiversity & Conservation Combined Conference. This is the first time that these two conferences have been combined and the synergy offers a unique opportunity to discuss key issues in both environmental and applied areas of invertebrate ecology and biology. Aside from the science we trust that you will also take the time to explore Tasmania and enjoy the magnificent natural beauty of this state.

<http://www.cdesign.com.au/entomology/>

Environment Institute of Australia and New Zealand (EIANZ) Outback Summit

23–26 October 2003, Broken Hill, NSW

The Environment Institute of Australia & New Zealand (EIANZ) will be convening its International Conference “The Outback Summit – Earth, Fire, Water, Spirit” in Broken Hill this year from Thursday 23 October through to Sunday 26 October 2003. This major event will focus on environmental management issues that are familiar to the Murray Darling Basin and the Far Western Division of NSW. The challenges of arid land management, determining appropriate policies for water usage and conservation, determining appropriate policies regarding the management and retention of vegetation; and the sociological impacts on regional/rural communities, of evolving responses to these environmental issues will be the foci of the Conference. Speakers from across Australia, in addition to many invited international speakers, will be in attendance.

<http://www.eianz.org/2003conference/2003conference.htm>

Ecological Society of Australia Annual Conference

8–10 December 2003, Armidale, NSW

The Ecological Society of Australia will hold its Annual Conference on December 8–10 2003 at the University of New England, Armidale, New South Wales, Australia. The meeting will include symposia, an open forum of contributed papers and poster session, postgraduate course, social events and post-conference

excursions. Submissions of abstracts for papers and posters are invited. Registration and abstracts should be submitted electronically via the Conference web page <http://www.ecolsoc.org.au/conferences.html> between June and 5 September 2003.

MEETINGS DIARY

New entries are marked with an asterisk.

19–20 June 2003

Fourth Oamaru Penguin Symposium

Email: agh@ihug.co.nz

*** 24–26 June 2003**

“50 years on” agscience convention at the Albany campus of Massey University

<http://www.agscience.org.nz/convention2003.html>

6–11 July 2003

22nd conference of the New Zealand Geographical Society, Auckland University

Email: NZGS2003@geog.auckland.ac.nz

*** 8–10 July 2003**

Biolive03, conference for teachers of biology; Waikato University, Hamilton

Email: Roger Cox cox.clan@clear.net.nz

*** 9–11 July 2003**

“Biosecurity at the Centre of New Zealand”, NETS 2003, NZ Biosecurity Institute, The Rutherford Hotel, Nelson.

<http://www.biosecurity.org.nz>

*** 11 August 2003**

Workshop on Wilding Pine Management, Preceding the 56th New Zealand Plant Protection Conference, Chateau on the Park, Christchurch

<http://www.hortnet.co.nz/publications/nzpps/conferen.htm>

*** 12–14 August 2003**

The 56th New Zealand Plant Protection Conference, Chateau on the Park, Christchurch

<http://www.hortnet.co.nz/publications/nzpps/conferen.htm>

1–5 September 2003

The 18th International Radiocarbon Conference, Te Papa, Wellington

<http://www.14Conference2003.co.nz>

*** 28 September – 3 October 2003**

Invertebrates and Environmental Change, combining the Australian Entomological Society annual conference and the 6th Invertebrate Biodiversity & Conservation conference, Hobart, Australia

<http://www.cdesign.com.au/entomology/>

*** 28 September – 1 October 2003**

SETAC Asia/Pacific-ASE Conference: Solutions to Pollution. Convention Centre, Christchurch
<http://www.ecotox.org.au/nz2003>

22–24 October 2003

Greening the City: Bringing Biodiversity Back into the Urban Environment. Conference of the Royal NZ Institute of Horticulture (in association with the CCC, ECan, Landcare Research and PGG). Chateau on the Park, Christchurch.

<http://www.rnzih.org.nz/pages/conference2003.htm>
 Email: d&amoyle@xtra.co.nz

*** 23–26 October 2003**

EIANZ Outback Summit “Earth Fire Water Spirit”. Broken Hill, NSW

<http://www.eianz.org/2003conference/2003conference.htm>

*** 13–14 November 2003**

“Fresh Water New Zealand: Problems, Processes and Priorities.” Royal Society of New Zealand Conference, AUT, Auckland

E-mail: gill.sutherland@rsnz.org

16–20 November 2003

“Theory and Practice in Ecology,” the annual conference of the New Zealand Ecological Society, University of Auckland, Auckland

<http://www.sbs.auckland.ac.nz/ecolsoc2003/>

*** 18–21 November 2003**

New Zealand Hydrological Society Annual Conference, Taupo

<http://www.hydrologynz.org.nz/society-conferences.html>

1–5 Dec 2003

3rd International Wildlife Management Congress, University of Canterbury, Christchurch

<http://www.conference.canterbury.ac.nz/wildlife2003/>

*** 8–10 December 2003**

Ecological Society of Australia Annual Conference. University of New England, Armidale, New South Wales, Australia

<http://www.ecolsoc.org.au/conferences.html>

***19–23 January 2004**

Southern Connections IV, University of Cape Town, Cape Town, South Africa.

<http://www.uct.ac.za/conferences/sc2004>

*** 19–23 April 2004**

4th International Conference on “Applications of Stable Isotope Techniques to Ecological Studies”, Museum of New Zealand, Te Papa Tongarewa, Wellington.

<http://207.195.94.13/isoecol>

*** 10–13 August 2004**

“Forest diversity and resistance to native and exotic pest insects”, The International Union of Forestry Research Organisations (IUFRO) Conference, Hanmer Springs, Canterbury

<http://iufro.boku.ac.at/iufro/iufro/d7/wu70307/nz/>

MEMBERS GONE AWOL

We have a growing list of members who we don't have current addresses for. We would be grateful if people who knew of the following ask that they contact the secretariat with their new address details

Clive Appleton
 Fiona Bancroft
 Lisette Collins
 Katherine Dixon and R Mitchell
 Brad Ilg
 Shelley Joyce
 Christine Miller
 Michael Moffat
 Chris Stowe
 Yvonne Weeber

NEWS FROM COUNCIL

Editor's Note (Edited and abridged minutes)

Minutes of New Zealand Ecological Society Council Meeting held 23 May 2003

Correspondence

We were invited to participate in the Royal Society NZ Awards Ceremony to be held one on 13–14 November 2003 in Auckland. Council decided that since all expenses to attend the event for a presenter and recipient would need to be met, that we would offer a “virtual” presentation on powerpoint for the NZES Te Tohu Taiao recipient for 2002 (Phil Cowan).

A Biosecurity conference is to be held in Wellington 21–22 August 2003. The organisers asked us at 24 hrs notice if we could offer a speaker from an ecological perspective. Council resolved to try and get someone talking, and to cover expenses or recover them from the conference organisers.

General Business

Council discussed putting in an application to the Science & Technology Promotion Fund administered by the Royal Society of New Zealand. We could use

this fund to better promote the work of New Zealand ecologists. Richard volunteered to have a look at it.

The launch of the NZ branch of EIANZ was discussed (see page X for further details). Murray Williams attended the launch on behalf of NZES. It was generally felt that this organisation would complement NZES rather than be a threatening competitor. Janet to contact Vice President NZ of EIANZ to investigate possible liaisons, joint conference, etc.

Charges for reprints from *NZJE*: there is currently some confusion on the policy for sending and charging authors for reprints from *NZJE*. Council agreed to sending 20 paper copies plus a PDF to authors free of charge, and incorporate the cost into the page charges. Ben to review how much we should charge, to maintain current income.

One of our members has made a suggestion on his payment slip that the Secretariat have passed on. Mr David Melville wrote: "Rather than payment after 15 Feb being subject to a late payment charge it would be better to offer a \$10 discount to those paying before 15 Feb." Council agreed to put base rate up with a \$10 discount for prompt payment or new members, as from 1 Jan 2004. We will need to update the membership forms, newsletters, and website before then.

Membership leaflet: plan to put the electronic version on the web as a pdf and noted that we ought to add the logo and update the rates to reflect the above change. Dave adds new membership rates.

Membership

7 new members and 1 new subscriber were welcomed: Sarah Burke, Laurence Barea, David Butler, Catriona MacLeod, Stephen & Maxine Hartley, Jonathan Boow, Hawkes Bay Regional Council. 6 resignations were received along with notification of two members going "on hold".

Council resolved to strike off 23 members who were two years in arrears. These people won't have received recent issues of the journal or newsletter but can rejoin at any time and will receive new issues as they appear without being billed for the back issues they missed.

Membership totals are now 581 members including 353 full members, 51 joint, 128 unwaged, and 114 subscribers.

Journal editor's report

David Wardle reports that all is going well—there has been a marked increase in submissions—17 so far this year which is 50% above normal. If this increases, will need to increase rejection rate to about 45% or increase the issue size. Vol. 27(2) has now been finalised, and four papers accepted for 28(1). Council resolved to get more details of the marginal cost of increasing the number of printed pages.

Webmaster's report

Website is moving ahead rapidly. Visitation rates have been stable since new version put online in June 2002. About 600–700 IP addresses visit per month, about 2–3000 hits. Journal page is now also getting a lot of hits (more than home page, last month).

Terrestrial and Freshwater Biodiversity Information System (TFBIS) grant to mount back issues of *NZJE* and expand Hot Science. Will soon purchase the hardware for scanning the old journal issues that we can't get electronically from the publishers. As well as mounting these on the web, we can sell issues on CD at e.g. the conference. We plan to try to make PDF's of all issues of the *NZJE* and the *Proceedings of the NZES* as well as Occasional Publications 1 and 2, Sustainability statement, Population statement from c 1973.

We are now also ready to order PDFs of recent issues of *NZJE* from Swiftprint to put on the website for subscriber access. Some older issues are not complete PDF's as the images etc are missing but will still be a head start compared to doing all the scanning and OCR ourselves.

Council confirmed that issues older than three years will be made freely available to anyone from the website and that more recent issues will be available, initially at least, only to subscribing institutions. PDF's of each article will be sent to the corresponding author who can, if they wish, make it available to the web through their own personal page. A core group of Christchurch-based councillors will meet to implement the plan.

A new partition within the webpage has been set up that is only visible to council. This can be used for various council business and confidential matters such as the full minutes of council meetings etc, as well as a list of duties for each office holder on council.

2003 Auckland Conference

Council received a report from Dianne Brunton the conference organiser. "We have confirmed the venue (*School of Engineering*, all financial matters will be dealt with by the Conference Centre here at Auckland (*Barry Williams*) for a fee of \$30 per person. We thought this is very reasonable and will relieve us of a difficult component of the job. We have a website which we need to attach to the Societies site and are currently working on posters to me mailed out soon. Ji Weihong is in charge of the abstracts and will be away July and part of August so the registration/submission of abstracts is quite late".

Education Subcommittee

Council received a report on *TuiTime* from Carol West. "Promotion: *Sonia Frimmel* has designed a bookmark which is at the printers right now. Should be available to all and sundry in 2–3 weeks time. Bulk lots

of bookmarks will be delivered to DOC conservancies, variable numbers depending on population base. I will retain some for the BioLive conference which SMF has funded our attendance at in July. We'll send some to Min Education/MfE. The balance can go to the Secretariat for distribution with correspondence.

TuiTime upgrade: Laura and I spent 3.5 person days at Heurisko in April discussing the site upgrade and preparing material for it. We now have a range of activities (Jacqueline wrote a fair few of them) targeted at each curriculum level from 1 to 4 and tied quite closely to the "Making Sense of the Living World" strand but with considerable relevance to other parts of the science, social studies and maths syllabuses. Laura has written "easy read" versions of the concept pages to make access to the information easier for some kids. And we've added a new concept page on management of pests. The changes proposed for the game link more closely to the syllabus: Stage 1 will be a pre-human forest where tui had only avian predators and competitors, Stage 2 is the current situation of introduced predators and competitors in addition to the natural ones (what's on the site now), and Stage 3 is a managed forest where traps and bait stations can be deployed to reduce competitors and predators.

By the end of June we should have spent c. \$23k of the SMF grant (all that we asked for in this (Govt) financial year). Next we have to prepare material for the BioLive Conference in Hamilton in July and link TuiTime to the Science and Technology Road show.

After talking to lots of teachers etc about TuiTime, everyone agrees it's a fantastic site (just what's needed) but we need to make teachers aware of it. Sending stuff to schools is not targeted and is likely to be very wasteful, therefore can I ask each of the Councillors to take an active interest in TuiTime and promote it whenever they get a chance—we are always running into teachers and it takes only a few minutes to tell them about this wonderful resource that can help them (and us) enormously.

Submissions

Murray Williams circulated a discussion page about the process for making submissions. Council agreed that current policy is ad hoc and it would be useful to formulate clearer policy. There are two main types of submissions, with different suggested procedures:

(1) Initiated by a member, where there is a short deadline and they want the society to endorse it. In this case the Submissions convenor would be the contact person, recommend a position (pro or not) to council by e-mail, and decide immediately.

(2) Larger issues with longer lead time. Submissions convenor watches what issues are coming, identifies ones NZES should comment on and organises people to write it. Council to approve before submission

(by e-mail or in meeting depending on time).

This structure was agreed; Murray to write this up as a formal policy which can be signed off at next meeting and then put on the web.

Dates for next meetings for 2003

29 August, 16 November (evening in Auckland the day before the conference).

NZES LISTSERVER

NZES has an automated email listserver that can broadcast messages to all those on the list. There is not a huge amount of traffic (a handful of messages a month) but it can be useful for job adverts, information about conferences, requests for help or information about particular topics, etc.

Only those on the list can send messages.

How to subscribe

You can subscribe (and unsubscribe) yourself using the commands below.

To subscribe, send a message to nzecosoc-request@it.canterbury.ac.nz and in the message have two lines:

```
SUBSCRIBENZECOSOC  
END
```

To unsubscribe, send a message to the same address, with these lines:

```
UNSUBSCRIBENZECOSOC  
END
```

If you change your email address

If you change your email address, you have to unsubscribe from the old one, and subscribe from the new one. If you changed address but forgot to tell the server, I start getting error messages from your old address and have to unsubscribe you manually, so make my life easier and do this yourself. If your email address has problems (eg messages rejected because your inbox is full) for more than a few weeks I will also unsubscribe you. If you are not getting any messages and wonder if you are still on the list, just send another subscribe command.

How to send messages

Note that due to a (single) spam message which was sent through the list in August 2002, we have changed the system so that only those registered on the list are able to send messages to everyone. If you want to send a message and think you are on the list but the server says you are not, it is probably because you changed your email address and didn't tell the server (see above). If you are not on the list and don't want to subscribe and want to send a message, send it to me to forward on.

Messages on the list should follow these simple rules:

- NO ATTACHMENTS!!!
- put the info in plain text in the message
- if there is bulky or graphic material some people may want, put a web address in the message that people can click on if they want, or give a contact email address where people can ask for it
- only send stuff that is likely to be of general interest to NZ ecologists

To send a message, e-mail it to:

nzecosoc@it.canterbury.ac.nz (assuming you are a member of the list).

Replying to list messages

If you get a message on the listserver and want to reply to the person who sent it, please be careful that your reply goes to the person, and not to the list (to be bounced out to everyone!).

For more information, contact Dave Kelly:

d.kelly@botn.canterbury.ac.nz.

Web page

To obtain additional details contact the NZ Ecological Society website: <http://www.nzes.org.nz>. This site 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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This Newsletter was produced by Alastair Robertson and Jeremy Rolfe.

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:

Alastair Robertson
Ecology, Institute of Natural Resources
Private Bag 11222
Massey University

Ph: 06-350-5799 extn 7965
Fax: 06-350-5623
E-mail: newsletter@nzec.org.nz

Next deadline for the newsletter is 22 August 2003.

Unless indicated otherwise, the views expressed in this Newsletter are not necessarily those of the New Zealand Ecological Society or its Council.

This issue is printed on 100% recycled paper



MEMBERSHIP

Membership of the society is open to any person interested in ecology and includes botanists, zoologists, teachers, students, soil scientists, conservation managers, amateurs and professionals.

Types of Membership and Subscription Rates (2003)

Full (receive journal and newsletter) \$65 per annum
Unwaged (with journal) \$35 per annum
Unwaged membership is available only on application to Council for full-time students, retired persons etc. Unwaged members may receive the journal but must specifically request it.
Joint \$65 per annum
Overseas \$85 per annum
Joint members get one copy of the journal and newsletter to one address.
School \$12 per annum

Educational institutions may receive the newsletter at the cost of production to stay in touch with Society activities. By application to Council.

There are also Institutional Rates for libraries, government departments etc.

Overseas members may send personal cheques for their local equivalent of the NZ\$ amount at current exchange rates, for most major overseas currencies.

For more details on membership please write to:

NZ Ecological Society
PO Box 25 178
Christchurch
NEW ZEALAND

MOVING? If so, please print your name and new address below, and return with the old address label to us.
PLEASE
LETTERS
Address: _____
Postcode _____
Address effective from: _____ (Month) _____ Year _____