1997 CONFERENCE: BIODIVERSITY NOW

Joint conference of:
New Zealand Ecological Society
New Zealand Entomological Society
Systematics Association of New Zealand

Victoria University of Wellington
29 June - 3 July 1997
Call for statements of interest, and first call for papers
Planning for this conference is well under way, but indications of numbers attending and requiring accommodation are now required.
Sun 29 June: Student session (students only)
Mon 30 June - Wed 2 July:
Symposium and contributed papers
AGMs of the societies
Thurs 3 July: Field trip(s)

Symposium title:
New Zealand’s biodiversity: assessment, strategies, and management

Speakers will be invited to take part in the symposium, but some contributed papers may be appropriate and thus be included.

All offers of papers will be considered for contributed sessions. Concurrent sessions may be run

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reflecting the specialist interests of the three societies.
Accommodation will be available at Weir House, Victoria University.
An indication is required now of the numbers of rooms likely to be needed so that rooms can be reserved.
Some biletts may be available for students.
Registrations and formal paper offers will be called for in March 1997.
To help with planning, please fill in and return the following form by 30 January 1997, to:
Fran Kell, P O Box 41072, Eastbourne
Ph/fax: 04 562 8197 email: nzjb@rsnz.govt.nz

BIODIVERSITY NOW Expression of interest

Name ..............................................................................
Address ...........................................................................

Am interested in attending the conference. I will offer a paper tentatively entitled:

__________________________________________________________________________________________

I will require accommodation at Weir House for .......... nights

I am interested in a field trip, and would prefer (circle one option):

1 Somes Island (Wellington Harbour) 2 Wellington South Coast
3 Wellington Botanic Gardens - Karori Sanctuary - Otari Native Plant Museum

Return by 30 Jan 1997 to: Fran Kell, P O Box 41072, Eastbourne. ph/fax: 04 562 8197 email: nzjb@rsnz.govt.nz
NOTES FROM COUNCIL

Council met on 28 of November at Canterbury University. We discussed the EcoSoc membership application to IUCN, and the conferences planned for 1997, and 1998. There is a conflict in timing for the 1998 joint conference with the Australian Ecological Society as the Conservation Biology meeting is scheduled in Sydney at approximately the same time as the joint meeting here. It was decided that we would investigate holding the 1998 Ecological Society joint conference late November 1998. (Please feel free to voice your opinions/ideas on the appropriateness of the timing in this Newsletter)

The Journal was discussed, it is currently receiving adequate submissions. However, there is a need for secretarial help and the editorial board is currently one person short. The position would preferably be taken up by an invertebrate ecologist. Bill Lee has also notified Gábor that he wishes to resign after 7 years on the editorial board as a plant ecologist. If you are interested in filling either of these positions please contact Gábor Lővei. There was a discussion about how the society's membership is held on database, with special reference to understanding the demographics of the society.

Next council meetings are scheduled for 13 February 1997, 1 May and the AGM on 30 June.

SUPPORT FOR IUCN MEMBERSHIP

I was delighted to read in the October 1996 newsletter that the Ecological Society has taken the decision to apply for membership of IUCN. I make this comment as an ex-Councillor of the Society for 10 years, as the Chairperson of the NZ Committee of IUCN members and as a newly elected councillor for Oceania to the IUCN Council for the next 3 years.

At present there are only seven members of IUCN in New Zealand (DOC, MfE, NZ Conservation Authority, Lincoln University - Department of Resource Management, Royal Forest & Bird Protection Society, ECO, and WWF-NZ.) (By comparison there are 50 members in Australia.) The obvious gap in membership in New Zealand has been the relevant scientific societies that have objectives relevant to the work of IUCN. I think it is entirely appropriate that the NZ Ecological Society "leads the way", knowing the calibre, skills and experiences that are represented within its membership.

I attended the IUCN World Conservation Congress in Montreal in October, one of almost 3,000 delegates from the global membership of this unique organisation. I left with the strong impression that IUCN is at the cutting edge of the many tough environmental and conservation issues that need to be confronted in the coming decades. Its membership encompasses the diverse range of perspectives that will need to be heard in the search for solutions. IUCN is also uniquely positioned to deliver on those solutions through its global partnerships with organisations such as the World Bank and UNEP, its strong regional presence and grassroots NGOs.

As an IUCN member the Ecological Society will, for an extremely modest subscription, gain access to global networks of scientific specialists, to information about events, conferences and publications, and be better in touch with the trends affecting global conservation. Just as important, our members will be able to contribute to the global effort the IUCN is making to conserve the integrity of nature and promote ecologically sustainable development. I'm sure Ian Spellerberg informed members and Council that the British Ecological Society has been doing that as an IUCN member for a considerable number of years.

Members may be interested to learn that the Director-General of IUCN, David McDowell (ex DG of DOC), will be on an official visit to New Zealand on 23-25 February 1997. A stimulating programme is now being developed by the NZ members for his visit which will be on the Lincoln University campus. If you have a genuine interest in what IUCN does, how you might get involved in commission activities (which are voluntary networks totalling about 9,000 specialists) and want to come to the meeting in February, please let me know.

I will try to keep members informed of IUCN events that may be of interest by items in this newsletter. Those of you who have the appropriate gear might like to check out IUCN on the World Wide Web at: http://www.iucn.org

Wren Green, PO Box 10-420, Wellington.

RICCARTON BUSH: PUTARINGAMOTU

The book by this title has just been released by the Riccarton Bush Trust. This fascinating story of Christchurch's unique forest is edited by Brian Molloy and includes 23 contributed chapters by acknowledged experts on topics such as the history, environment, plants, animals and management of the bush remnant. Riccarton Bush is arguably the oldest protected natural area in New Zealand.

Riccarton Bush: Putaringamotu is available from The Riccarton Bush Trust
PO Box 11-011, Christchurch, New Zealand
Phone +64-3-348-5119; Fax +64-3-348-9092
WORLD SUSTAINABLE AGRICULTURE ASSOCIATION

(Excerpts from a testimony by Michael Sligh, before the US National Secretary for the World Food Summit, as published in the WSAA newsletter, Vol 5, No 21, 1996)

This is a non-profit, non-governmental organisation dedicated to the preservation of family farms and rural communities, conservation and agricultural biodiversity, socially responsible use of new technologies, safe food and sustainable systems of agriculture. We work domestically and internationally in partnerships on the above issues.

An overarching concern we have is the lack of US and FAO focus on and acknowledgment of the indispensable role of local food production and agriculture and rural community revitalisation as keys to successful local self-reliance. Rebuilding strong rural communities is one of the best ways to reverse the growing migration into urban ghettos.

There is a strong growing international consensus that much of long term world hunger and the continued decline in developing countries' ability to become locally self-reliant is based on local, national and international policies which prevent or place barriers to this goal rather than there not being enough food. There is also growing talk of the need for a second green revolution, one which learns from the past mistakes and picks up where the first left off. We must clearly reject new silver bullet approaches which claim to solve world hunger. The truth is that world hunger must be solved by site specifically: field by field, farm by farm, village by village, country by country, with strong, meaningful local leadership and endorsement.

This society, established in 1991, is dedicated to the well being of all people in harmony with Nature and is based in the United States with branches in several Indo-Pacific regions, including Australia.

The current president of the society, and also on the board of directors for the society, is:

J. Patrick Madden
8554 Melrose Avenue
West Hollywood, CA 90069, U.S.A
Phone: 310-657-7202
Fax: 310-657-3884
Email: pmadden@igs.apc.org

Nell Graham, an EcoSoc member, kindly submitted this information in the form of a WSAA newsletter, 1996 annual report and newsletter application form (US$18.00 is the suggested fee for newsletter subscription). The information was forwarded to the secretary of EcoSoc for the edification of interested members, or contact WSAA directly via the above media. WSAA also has for sale a range of resources, reports and a video dealing with issues pertaining to sustainable agriculture. Neil Graham has already purchased the video entitled “Life in the Soil”.

INVASIVE SPECIES SPECIALIST GROUP (ISSG)

The ISSG is one of the working groups of the IUCN and comprises a world wide network of experts on the conservation impacts of invasive species, it is currently chaired by Mick Clout. Membership is by invitation, but it is not necessary to be a full member of the group to contribute to the cause of reducing conservation threats posed by invasive species. ISSG provides advice on threats from invasive species and control or eradication methods to IUCN members, conservation practitioners, and policy makers. The group concentrates on reducing or preventing the adverse effects of alien invasions on conservation values.

Because of the vast scope of the invasive species subject, ISSG activities are focussed on areas of special need. Sub-groups may develop to deal with areas such as terrestrial weeds, terrestrial vertebrates, invertebrates, fish, marine invasives, micro-organisms, genetically modified organisms, and the international agreements and laws controlling invasive species. There is a special overall focus within the group on the particular threat which invasive species pose to oceanic islands.

The ISSG plans to produce regular newsletters (entitled Aliens), the creation a global database of invasive species, co-ordination of specialist workshops on invasives, and publication of technical and scientific information on invasive species management. Work is currently in progress on an Aliens World Wide Web Site and the formulation of international policy on invasive species.

To keep the group's size manageable membership to the ISSG is by invitation only, but anybody with interests in this area can subscribe to the list server ALIENS-L (see later in this issue) or subscribe to the newsletter Aliens. To subscribe to Aliens newsletter send an email or fax to

Sarah Lowe,
ISSG
Fax: +64-9-373-7042
Email: s.lowe@auckland.ac.nz
Include your fax number and a subscription form will be returned to you.
RABBIT CALICIVIRUS DISEASE

NZ EcoSoc made a submission on the release of the rabbit calicivirus disease (RCD) emphasising the need for urgent development of, and national commitment to, an integrated post-release research and monitoring programme that would maximise the benefits and minimise the risks of release (legally, illegally, or accidentally) and any subsequent spread of the virus.

We also noted that there were many uncertainties still associated with the release of RCD and that short term pre-release research would not address many of the issues involved. Longer term pre-release research might reduce, but could not eliminate, these uncertainties. It was therefore recommended that RCD should not be released until adequate planning and resources have been committed by the relevant agencies to an integrated programme of post-release monitoring and research.

MEDIA RELEASES FROM LANDCARE RESEARCH

Landcare Research is now sending media releases by email. If you would like to be added to this list, email Brian at ellisonb@landcare.cri.nz. The WWW site for more information about the items mentioned can be found via the Landcare homepage on http://www.landcare.cri.nz/. Brain Ellison can be contacted as follows:

Manaaki Whenua - Landcare Research
PO Box 40
Lincoln
Phone +64-3-325-6700
Fax +64-3-325-2127
Email ellisonb@landcare.cri.nz.

Flying radar monitors New Zealand

A sophisticated flying radar is set to cast new light on some of New Zealand’s unique vegetation. It flew over New Zealand in the first few days of November, and will give New Zealand scientists a chance to test new methods to monitor the country’s resources.

Soil organics do matter

Dunedin - 31 October, 1996

Erosion was once a major concern of high country farmers but now the trend is to find early warning signs that the soil is becoming unstable or unhealthy, says soil scientist Dr Allan Hewitt. “A sole focus on erosion is like using stock deaths as a measure of animal health,” says Dr Hewitt, a scientist with Manaaki Whenua - Landcare Research.

Fly slows old man’s beard

Lincoln - 3 October, 1996

The first biological control against old man’s beard was released from quarantine today. The control agent is a tiny fly with larvae that tunnel into the leaves of old man’s beard. Heavily damaged leaves eventually shrivel and fall off.

Wasp control agent released

Lincoln - 3 October, 1996

Releases began this week of a new biological control agent in the fight against wasps. This follows the decision late last week of MAF’s chief veterinary officer to grant permission for Landcare Research and Donovan Scientific Insect Research to release the parasitoid Sphecodaphaga vesparum burra from quarantine.

Less 1080 bait gets good results

Lincoln, July 29

Latest research shows that possum populations can be effectively controlled with as little as two kilograms of cereal-based bait per hectare. This is almost a 90% reduction in the amount of bait, and 1080, compared with the 1970’s and less than half the five kilograms per hectare currently used.

There are several categories containing “older” information on various topics;

- General
- Possums and 1080
- Other pests
- Soils and erosion
- Native flora and fauna
- Weeds
- Global warming and CO2

POSTGRADUATE RESEARCH TOPICS

The University of Waikato, Department of Biological Sciences

Students in Ecology

B. Beaven: Diet, home-range and sup-feeding behaviour of free-range kaka

P. Blackett: Nutrient sources and transformations in a wetland used for coalmine wastewater treatment

G. Bramley: Aspects of the ecology and behaviour of the four rodent species in New Zealand

R. Bull: Behavioural responses of farmed red deer (Cervus elephas) to different handling conditions
T. Day: Routes of transmission of *Leptospira interrogans* serovar Banaica in captive brushtail possums (*Trichosurus vulpecula*)

J. D'Eugenio: Improvement of nitrogen removal from dairy-shed wastewaters

C. Goodwillie: An analysis of the inappropriateness of neo-classical economics for managing the environment

J. Hutcheson: Effects of 1080 control operations on invertebrate communities

J. Ingram: Physiological and behavioural responses to stress in male red deer

A. Lord: Effects of human disturbances on the New Zealand dotterel (*Charadrius obscurus*)

P. Lusby: Nitrogen and phosphorous dynamics in the wetland ecotone of a Rotorua lake

C. Stads: Agriculture and peat bog eutrophication

A. Wordsworth: The role of fluctuating asymmetries in parental investment and mate choice in zebra finch (*Taenopygia guttata*)

*Limnology, Zoology and Animal Biology*

G. Barnes: Size, abundance, and diet of brown bullhead catfish in Lake Taupo.

S. Clements: Stress effects of trappings on rainbow and brown trout.

M. De Winton: Interactions between submerged macrophytes and lake sediments

I. Duggan: The ecology of North Island rotifers and their use as bioindicators

P. Dyer: The importance of Bacterial and phytoplankton production in Lake Taupo: Oligo vs impacted sites (jointly with NIWA)

I. Hannus: Effect of PCP on the early life stages of New Zealand freshwater fish.

D. Hofstra: Invasion biology of *Hydrilla verticillata* (jointly with NIWA)

J. Hutcheson: The effect of 1080 on insect communities of the Onga Ecological area

J. Kanapathippilla: The use of insects as biomonitor in aquatic pollution (jointly with NIWA)


K. Willis: The effect of PCP on lake food webs

*M. Faville: Genetic variation in physiological characters associated with spear production in asparagus. (jointly with Crop & Food Research, Lincoln).*

A. Holzapfel: Biology of *Dactylanthus* (jointly with FRI)

L. LaFranchi: Production and allocation in nashi trees. (jointly with MAFTech, Ruakura.)

K. S. Maseyk: Photosynthetic response to light in bryophytes.

D. Stephens: Growth, water use, and carbon allocation in kauri and kahikatea

A. Walcroft: Carbon allocation and water use in *Pinus radiata*

*For contact address see Academic staff item.*

**The University of Auckland, School of Biological Sciences**

(Masters students unless indicated otherwise)

Nicola Aitken: Molecular genetic analysis of the movement of the brushtail possum, *Trichosurus vulpecula*

Sandra Anderson: Changes in ecosystem processes: the dynamics of pollination and dispersal in New Zealand

Daniel Blanchon: The investigation and improvement of *Libertia* species for commercial horticulture (PhD)

Gene Browne: Biostatistical techniques for the detection of biological impacts (PhD)

Sam Buchanan: Early life history of *Perna canaliculatus* with special reference to mariculture. (PhD)

Mark Bulliens: Investigations into the potential of *Trichosurus vulpecula* (the brushetailed possum) to act as a reservoir for arthropod-borne viruses.

Geoff Carlaw: A comparative study of the effects of possum (*Trichosurus vulpecula*) browse on *polutukawa* (*Metrosideros excelsa*)

Christopher Clarke: Aquaculture of paua (*Haliotis iris*) in Northern New Zealand (PhD)

Paul Craddock: The effect of rodent control on invertebrate communities in indigenous coastal forest islands.

Merel Dalebout: Molecular systematics of the unique Southern Ocean beaked whales (*Ziphiidae*)

Karyn Froud: Host preference testing and developmental biology of *Thripobius semiluteus*, a potential biological control agent for greenhouse thrips (*Heliothrips haemorrhoidalis*)
Allan Gatland: Ecology of a crop pest in non-crop habitats (PhD)

Sean Handley: The ecology of spionid polychaete worm infestation of commercial shellfish cultivations in Nelson (PhD)

Brett Hickman: The effects of the white butterflies (Pieris rapae) introduced parasitoid (Pteromalus puparum) on the native yellow admiral, Bassaris itea.

Janine Hodges: The life cycle of the European earwig, Forficula auricularia, and its feeding habits in organic apple orchards

Andrew Jeffs: The ecology and aquaculture potential of northern populations of the dredge of Bluff oyster, Tectenaria chilensis (PhD)

Shane Kelley: Marine reserves and the red rock lobster fishery (PhD)

Susan Leitch: Aspects of the ecology and distribution of bryophyte epiphytes on tree ferns

Tinka Mehta: The role of biological rhythms in the zonation of intertidal pools

Mark Morrison: Ecology and enhancement of the scallop Pecten novaeezalandiae (PhD)

David Muto: The influence of coastal fringe habitat conditions on the early life of the flounder Rhombosolea leporina (PhD)

Ajrin Nenadic: The effects of pollution in the Waitamata Harbour on flounder (Rhombosolea leporina) (PhD)

Joshua Salter: Embryology and pollination mechanisms in mātai (Prumnopitys taxifolia) and miro (P. ferruginea) (PhD)

Gabriele Schmidt-Adam: Floral biology, breeding system and seed production of Pohutukawa (Metrosideros excelsa) (PhD)

Anne-Marie Schwarz: The interactions between light and growth of submerged plants in New Zealand lakes (PhD)

Angela Sharples: Environmental effects of Kraft mill effluent from the Kinleith pulp and paper mill on the Waikato River (PhD)

Noelene Shirley: Occupancy of the rocky shore by the estuarine barnacle Elminius modestus and little black mussel Xenostrobus pulex

Gretel Silyn Roberts: Microbial assemblages in wetlands receiving wastewater (PhD)

Vicki Staines: Some aspects of the demography, recruitment, and restoration ecology of mangrove forests (Avicennia marina) in the Auckland region

Michael Taylor: Reproductive, larval and recruitment ecology of the Tellinid bivalve Macomona liliana in the Manuka Harbour (PhD)

Richard Taylor: Ecology of mobile seaweed epifauna (PhD)

Tracey Vial: Comparative feeding behaviour of silver drummer, Kyphus sydneyanus, and parore, Girella tricuspidata

Trevor Willis: The effects of marine reserve protection on reef fish populations (PhD)

David Wilson: The use of yellow belly flounder (Rhombosolea leporina) as a bioindicator of metal pollution in estuarine waters

Lynette Wilson: The role of interspecific competition in the success of stitchbird or hihī (Notiomystis cinerea) translocations

Further information can be obtained from the Chairperson of the SBS Graduate Studies Committee.

University of Auckland School of Biological Sciences Private Bag 92019 Auckland 1 Fax +64-9-3737415 Phone +64-9-3737599 ext 7849 Email s.baiyea@aukland.ac.nz

**ACADEMIC STAFF AND THEIR RESEARCH INTERESTS**

**University of Waikato - Biological Sciences**

**Ecology**
- Dr J.R. Waas: Behaviour and ecology of birds, fish and mammals including studies of: Animal communication, the biology of aggression, animal welfare, social factors influencing reproductive physiology, conservation biology, social recognition systems and the ontology of social behaviour.

**Limnology, Zoology and Animal Biology**
- Dr M.A. Chapman: Freshwater ecology, particularly the population dynamics and community interactions of zooplankton and mysid shrimps. Chironomid ecology and taxonomy. Station impacts on the Waikato River.
• Associate Professor J.D. Green: Zooplankton biology, especially calanoid copepods; rotifer and chydorid cladoceran taxonomy and distribution; palaeolimnology; regional limnology.

• Dr B.J. Hicks: Ecology and habitat requirements of freshwater fish.

• Dr N. Ling: Comparative animal physiology, particularly the physiology and biomechanical behaviour of connective tissues. Environmental physiology, including the effects of environmental changes and pollutants on physiological systems.

**Plant Physiology and Botany**

• Associate Professor T.G.A. Green: Research into the gas exchange (photosynthesis, water relations) of a broad spectrum of plants. Use of advanced measuring systems to apply gas exchange as a measure of stress and general plant performance. Lichen ecophysiology and vegetation mapping in Antarctica.


The University of Waikato
Department of Biological Sciences
Private Bag 3105, Hamilton,
Fax: (+64) (7) 838-4324.
Telephone: (+64) (7) 838-4023.
email: biology@waikato.ac.nz

**CONTACT EMAIL ADDRESSES**

**ALIENS-L**

ALIENS-L is the listserver of the Invasive Species Specialist Group (ISSG) of the IUCN Species Survival Commission. The group aims to "reduce the threats posed by invasive species to natural ecosystems and their native species, through increasing awareness of invasive species and means of controlling or eradicating them". This listserver is a contribution to that mission. It allows users to freely seek and share information on invasive species and the threats they pose to the biodiversity of our planet. This listserver is not limited to members of ISSG but is available to all who might be interested in the invasive species subject.

**OPERATING ALIENS-L**

To send a message to all other members of ALIENS-L address your email to:

aliens-l@ns.planet.gen.nz

If subsequent discussion on a topic is not appropriate for sharing with all other members of ALIENS-L, please ensure that you address your message to the individual concerned. When you wish to reply to a message from ALIENS-L please consider carefully whether to use "Reply" which will send your reply to everybody, or to type a new email to the individual concerned.

NOTE that you can send messages to ALIENS-L only from the email address that you used to subscribe to the list. Messages sent from other email addresses will not be accepted by the list.

If you wish to remove yourself from ALIENS-L then address an email to:

majordomo@ns.planet.gen.nz

In the body of the message (not on the subject line) type: unsubscribe aliens-l

On the next line type "end", or two dashes, or ensure that there is no text which will follow the above command by switching off your signature. For further information on commands to assist your use of this listserver address and email to:

majordomo@ns.planet.gen.nz

In the body of the message (not on the subject line) type:

help

On the next line type "end", or two dashes, or ensure that there is no text which will follow the above command by switching off your signature. This list does not have an automatic archiving feature (as may be suggested in the help file) but most mail will be archived for a limited period by the list manager.

This listserver is managed for the ISSG by

Dick Veitch,
Department of Conservation,
Private Bag 68-908, Newton,
Auckland, New Zealand.
dveitch@ns.planet.gen.nz

Daytime phone 64 9 307 9279.
After hours phone +64 9 298 5775.
Fax +64 9 377 2919.

Dick Veitch has also been looking for Internet Listservers that might conflict with, or be complimentary to, the ALIENS-L Listserver, established for the Invasive Species Specialist Group of IUCN. It is intended that ALIENS-L serve as an information sharing platform for people who are interested in invasive species of plant and animal – introductions,
impacts, eradications and control.

The following email-list servers were contributed by Dick Veitch:

**WADERS-L** for anyone interested in waders (shorebirds). Address a message to LISTSERVER@UCT.AC.ZA In the body of the message type SUBSCRIBE WADERS-L YOURNAME Type nothing else in the message. Switch off your automatic signature.

**SEABIRD** for anyone interested in seabirds and marine ornithology. Address a message to LISTSERVER@UCT.AC.ZA In the body of the message type SUBSCRIBE SEABIRD YOURNAME Type nothing else in the message. Switch off your automatic signature.

**MARINE PESTS** for those interested in species that are introduced to the marine environment. Address a message to MAJORDOMO@ML.CSIRO.AU In the body of the message type SUBSCRIBE MARINE-PESTS YOUREMAILADDRESS Type nothing else in the message. Switch off your automatic signature.

**WEEDS** to encourage idea sharing on noxious weeds that impact on U.S. agriculture. They hope to hear from weed specialists, the nursery industry, environmental and natural resources organisations, agronomists, farmers, scientists in academia and the government sector, and regulatory officials in the plant health arena. Sponsored by and housed at the headquarters offices of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) in Riverdale, Maryland, U.S.A. Address a message to MAJORDOMO@INFO.APHIS.USDA.GOV In the body of the message type SUBSCRIBE WEEDS. Type nothing else in the message. Switch off your automatic signature.

**WWD-L** is a discussion group on a database of weeds of the world (agricultural and environmental) Address a message to MAISER@PLANTS.OX.AC.UK In the body of the message type SUBSCRIBE WWD-L Type nothing else in the message. Switch off your automatic signature.

**INFOTERRA** is intended for exchanging information on environmental topics; posing queries to the Infoterra network; requesting information from the United Nations Environment Programme; and raising environmental awareness in general. Address a message to MAJORDOMO@CEDAR.UNIVIE.AC.AT In the body of the message type SUBSCRIBE INFOTERRA YOUREMAIL ADDRESS. Type nothing else in the message. Switch off your automatic signature.

**IRRO-L** was set up under initial impetus from the United Nations Environment Programme to provide access to all types of information relevant to the release of animals, plants and micro-organisms into the environment. Address a message to LISTSERV@BDT.ORG.BR In the body of the message type SUBSCRIBE IRRO-L YOURNAME Type nothing else in the message. Switch off your automatic signature.

**BIODIV-CONV** is devoted specifically to the Convention on Biological Diversity and its effective implementation. Address a message to MAJORDOMO@IGC.APC.ORG.In the body of the message type SUBSCRIBE BIODIV-CONV YOUREMAILADDRESS Type nothing else in the message. Switch off your automatic signature.

**BENE** is designed to foster enhanced communications and collaborations among those interested in biodiversity conservation and ecosystem protection, restoration and management. Address a message to LISTPROC@STRAYLIGHT.TAMU.EDU In the body of the message type SUBSCRIBE BENE YOURNAME Type nothing else in the message. Switch off your automatic signature.

Dick is interested in finding out about similar listservers, so please drop Dick or myself a line if you know of any not mentioned here.

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### USEFUL WORLD WIDE WEB ADDRESSES

A list of WWW addresses for New Zealand universities can be found on:

http://www.ncsu.edu/other_internet/nz.html

IUCN on the World Wide Web at:

http://www.iucn.org

Manaki Whenua - Landcare Research can be found on: http://www.landcare.cri.nz/

APHIS noxious weeds homepage:

http://www.aphis.usda.gov/ou/weeds/ weedhome.htm

Miconia in Hawaii: http://www2.hawaii.edu/~halesci/MiconiaInHawaii.htm

Weeds database: http://ifs.plants.ox.ac.uk/wwd/wwd.htm

Fruiting and flowering trees in New Zealand: http://homepages.ihug.co.nz/~cdijkgrafruit.htm
UPCOMING CONFERENCES

First International Virtual Conference on Infectious Diseases of Animals
April 20 - May 2, 1997
A World Wide Web-based scientific conference to be held through the homepage of the National Animal Disease Centre, USDA-ARS, Ames, Iowa, USA. The goal of this conference is to improve international collaboration and communication among researchers of infectious diseases of animals. Format will include both Abstract Displays and Poster Presentations. For additional information visit our Web site: http://www.nadc.ars.usda.gov/virtconf

We invite you to participate in the First International Virtual Conference on Infectious Diseases of Animals. Please note that previously presented Abstracts are acceptable for this conference. If you are unable to submit an Abstract or Poster Presentation, you may still log onto the NADC Web site between April 20 and May 2, 1997 and attend this virtual meeting. Our goal is to establish international networks of communication among scientists who otherwise find it difficult to meet.

In setting up this conference, one of our concerns is that we may not be able to contact every possible attendee. If you have e-mail addresses that should receive the announcement, let us know (rwoods@nadc.ars.usda.gov) or forward news of this conference to interested colleagues. To avoid possible chainmail messages, we suggest that you forward this message only to colleagues or students on your institute network or within a 1.5-km distance from your workstation. Finally, we apologize if you receive more than one notice about this conference. Unfortunately, we do not have a method for cross-checking our e-mail databases.

Virtual Conference Organisers, National Animal Disease Centre

The Microscopy New Zealand National Conference
10th-14th February 1997, Auckland
The conference is aimed at everyone using Microscopy in their work and will include something for both the experienced and not so experienced. An integral component in the conference will be workshops covering the following areas:
- Fluorescent Microscopy
- Image Processing and Analysis
- Confocal Microscopy
- Atomic Force Microscopy
- Immunocyto/Histochemistry

Low Temperature TEM Video Microscopy
The conference proper will include presentations from invited speakers, oral and poster presentations and technical forums along with Trades Displays and more. Day registrations are also possible. Awards will be presented for the best papers by students and young Microscopists.

Registration forms are available from the conference organiser:
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REPORTS AND JOURNALS RECEIVED BY NZ ECOLSOC

Conservation and use of Plant Genetic Resources - National Report for New Zealand
Alliance Issues paper for post election negotiations
The guide for applicants to the sustainable management fund 1997/1998

A SELECTION OF ABSTRACTS FROM NZ ECOLOGICAL SOCIETY CONFERENCE, LINCOLN UNIVERSITY, 1996

Species richness in forest canopy gaps: the role of local and regional processes.
BUCKLEY H, DUNCAN RP, ULRICH S, STEWART GH AND GERITZLEINER J. Department of Plant Science, PO Box 84, Lincoln University, Canterbury, New Zealand. In Nothofagus forest at Rough Creek in the Marua Valley, northwest South Island, New Zealand, we measured in 32 permanently marked forest canopy gaps: 1) the proportion of forest floor that was covered in six substrate types (forest floor, log, stump, pit, mound, and exposed mineral soil), and 2) species richness at two spatial scales: the total number of species found in each canopy gap, and the number of species in 0.2m2 quadrats on different substrates within each gap. We also determined gap age, area, shape, orientation, mode of formation (uproot, bole snap, standing tree death), and used the proportions of substrate types to construct an index of forest floor substrate heterogeneity for each gap.

Species richness in canopy gaps correlated with substrate heterogeneity, but not with any of the other measured gap characteristics; gaps with greater substrate heterogeneity contained more species. Twenty-two of the 42 species recorded in the quadrats showed a non-random preference for establishing on particular substrates, providing a mechanism for the increase in species richness with greater substrate heterogeneity. A greater diversity of...
substrates provides more opportunities for the recruitment of species with specific requirements for establishment and growth.

Variation in the number of species per quadrat was a function of local environmental conditions; quadrat species richness varied significantly with substrate type. After accounting for local environmental variation we found that quadrats located in species rich canopy gaps on average contained more species than quadrats located in species poor canopy gaps. Our results suggest that the availability of species in the region surrounding a local area may be a critical determinant of local species richness.

The up-take and persistence of sodium monofluoracetate (1080) in plants

Bowen LH, Ooliph SC, AND Eason CT. Manaaki Whenua Landcare Research, PO Box 69, Lincoln, New Zealand.

In New Zealand large-scale control of the introduced brushtail possum (Trichosurus vulpecula), and rabbit (Oryctolagus cuniculus) is based on aerial application of baits containing the toxin sodium monofluoracetate (1080). The high solubility of 1080 has generated concerns about its fate and translocation within ecosystems, one concern is that herbivorous animals may be poisoned by consuming plants that have absorbed 1080. To address this concern we studied the up-take and persistence of 1080 in two representative species of terrestrial plant, the pasture ryegrass Lolium perenne, and the native broadleaf Griselina littoralis. For both plant species, individuals were potted and a cereal bait containing 0.15% 1080 (w/w) was placed on the soil. At six time points up to 38 days whole plants were analysed for 1080 content by quantifying the dichloroamine derivative using gas chromatography with a detection limit of 0.0015 ppm. Both plant species absorbed 1080 but showed different persistence characteristics. In the ryegrass, 1080 concentration reached a peak of 0.16 ppm after 4 days, which then declined below levels of detection after 7 days. Conversely, in the broadleaf 1080 concentration reached a peak of only 0.06 ppm after 10 days, but took 24 days to decline below levels of detection.

Evidence of the continued existence of South Island kokako.


The South Island kokako (Callaeas cinerea cinerea) is the last endemic wattlebird likely to be remaining on the South Island mainland. Although over 150 reports of South Island kokako have been received in the last 30 years, none have been confirmed officially and the South Island kokako is now considered close to extinction.

Because South Island kokako are extremely rare, isolated and exceptionally elusive it is difficult to gather evidence as to their current existence. Yet evidence gathered since 1980 includes brief sightings of a furtive kokako like bird, which is associated with distinctive kokako-like calls and wingbeats especially in response to tape playback, and also with a characteristic moss grubbing sign. Kokako-like feathers have been found in association with the above indicators of South Island kokako presence. At the time of writing a DNA assay is being carried out on one of these feathers.

Although the situation deteriorates every year, compelling recent evidence suggests that remnant populations of South Island kokako exist in diverse forest habitat in at least the Nelson lakes, North Westland and southern Stewart Island forests. Unless a concentrated effort is made to elucidate and manage the South Islands last remaining wattlebird in the next few years it will probably become extinct.

A management strategy based on the successful research and recovery plan for North Island kokako is a viable option which needs to be urgently investigated. Initially such a plan would necessitate improving techniques of detecting and/or attracting an extremely furtive bird.

The response of Clematis vitalba L. to light and nitrate and the invasion of forest remnants.

Bundgaard RA1, Daily GT3, McNeil DJ3, AND Morton JD3. 1Department of Plant Science, PO Box 84, Lincoln University, Canterbury, New Zealand. 2Department of Landscape Architecture, PO Box 84, Lincoln University, Canterbury, New Zealand. 3Animal and Veterinary Sciences Group, PO Box 84, Lincoln University, Canterbury, New Zealand.

The deciduous perennial climber C. vitalba is an invasive weed species threatening the existence of lowland native forest remnants in New Zealand. In remnants, C. vitalba tends to establish in forest gaps and margins, particularly if these areas have been subject to recent soil disturbance. In these areas, rapid spatial and temporal variations in light level and soil nitrate concentration can be expected. We investigated the influence of light and nitrate on the germination, growth and light-acclimation characteristics of C. vitalba. Seed germination increased following exposure to light and nitrate at levels that could be expected to occur following disturbance. Growth of seedlings under a range of light and applied-nitrate levels showed that maximum growth of C. vitalba should occur at full sunlight in soils with moderate to high levels of nitrate. The results also show that C. vitalba is capable of substantial growth at light levels as low as 10% full sunlight and can survive at light levels as low as 3% full sunlight. We argue that the substantial light-acclimation ability of C. vitalba is due to a combination of characteristics that are consistent with both low-light and high-light adapted species; we specifically suggest an important role for xanthophyll-cycle-dependent energy dissipation within the photosynthetic apparatus. We propose that the germination, growth and acclimation characteristics of C. vitalba can account for its success as an invasive weed species.
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The deadline for the next issue is 6 March 1997.

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