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EDITORAL

Getting the right stuff to the right people, at the right time ...

Dr Richard Sadleir, the first manager of Science and Research, was appointed as much for his skills as an educator as for his skills as a research scientist. He always made it clear that the communication of information from the scientists to the end user was Science & Research's 'reason to exist' as part of the new Department of Conservation. DOC was one of the few government departments left with an operational science unit after 1987, because of the perceived need for science to underpin management.

Our second manager John Holloway, was very much a hands-on land manager. He emphasised not only the importance of getting the information to the right place, but getting it there in a form that was acceptable to busy and often crises-focussed staff.

Over the years, SRU instituted a number of ways of fostering better science communication, amongst them:

- Science Liaison officers (1987-1989)
- Science Advice (from 1987—40% of each scientist's time)
- Science Seminars (from 1987)
- Science Publications (from 1987)
- Conservation Advisory Scientists (from 1989)
- Principle Regional Scientists (from 1998)

But it was not enough, or at least there was anecdotal evidence that we were not succeeding in our prime objective of delivering science information to the right place at the right time.

Our third (and current) manager Geoff Hicks set as a high priority, the development of a new system for communicating science information, to the people who need it. He and his science managers determined on a comprehensive approach. They began with a systematic research investigation into what the 'right people' wanted.

In 1999 a research project was commissioned as part of SRU's five-year strategic plan to:

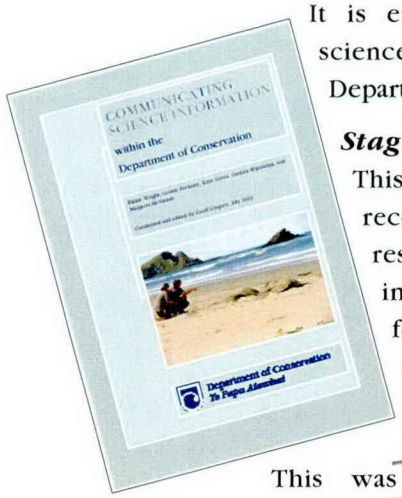
- Review the current science transfer processes
- Assess the effectiveness of these internal and external processes and methods
- Suggest options for new or improved processes / methods of science transfer
- Suggest a process for the ongoing auditing of the effectiveness of science transfer

Stage 1

Research was undertaken by a team led by Elaine Wright, Principal

Department of Conservation
Te Papa Atawhai

EDITORIAL



This internal document can only be viewed on the internal DOCnet website at: Biodiversity & Science > Science > Science Communications Project.

Regional Scientist, Southern Region, and completed in mid 2002. An edited and condensed version of the resulting report is available on DOCNET only. It is entitled: 'Communicating science information within the Department of Conservation'.

Stage 2

This included scoping the recommendations in the research report and developing the terms of reference for the project which is now called The Science and Technical Communication Programme.

This was managed by Warren Anderson, Greg Sherley, and Kaye Green, who developed a programme designed to make science information:

- Part of routine life in the Department
- Targeted to staff needs
- Audited

Stage 3

The implementation phase has begun with the appointment of Lynne Barr as Project Manager. Lynne has extensive experience is several government departments working on projects which required a high degree of persuasion and diplomacy. A profile of our new Project Manager is given below.

The project steering committee is due to receive a report on the shape and timing of the project implementation. A key to the implementation will be strong DOC staff involvement. As users, staff will be part of the teams set up to improve the ways science is made available to support management decisions.

Kaye Green—Editor

Introducing Lynne Barr ...

Project Manager for the Science and Technical Communications Programme

Lynne Barr has a technical background in water resource management, and began her working life as a hydrological engineer for the old Ministry of Works and Development. Between spells of working for local government authorities she did a stint with the Scottish Institute of Agricultural Engineers, researching the effects of mechanised potato harvesting.

Work done for both the Taranaki Catchment Commission, and the Wellington Regional Council allowed Lynne to develop skills in the transfer of technical information. She prepared reports on the hydrology of Taranaki ring plain and the Western Wellington Region. These provided a summary of the data in a format useful for direct input into the policy documents required for resource planning, thus making the technological material easy to find and use. It was in the Wellington Regional Council job that Lynne moved from the technical area to project management. There she developed the Hydrological Services Group to provide services (technical and extreme-event warning) for both internal and external clients in a cost-effective and accurate manner.

Lynne's project management skills were further developed and tested working for the Department of Child, Youth, and Family Services. As a member of the Residential Services Strategy Team, she managed the resource planning consents process, including

Lynne Barr and Krona

community consultation for a number of children's residential homes—a task which required tact, diplomacy, and determination. The approvals under the Resource Management Act to build new (or redevelop existing) residential centres were obtained. In achieving this Lynne gained a reputation for her professional knowledge, integrity, management of detail and complexity, and her ability to maintain focus.

Lynne has another life outside of 'work' where she breeds, trains, and shows Samoyed dogs, teaches (dog) obedience classes, dances Ceroc (French rock and roll), and plays badminton.

Kaye Green

Practical science communication

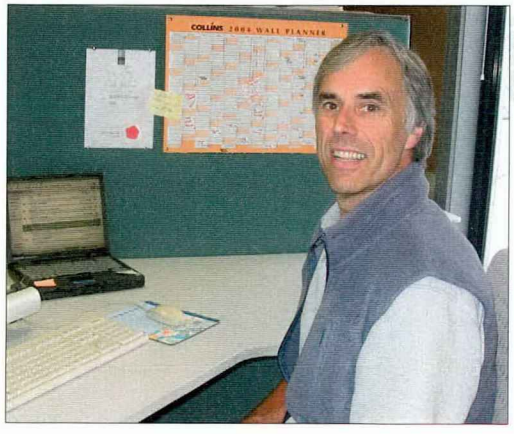
The Royal Society Fellowships for Teachers

On site at Victoria Street for the next year is the Royal Society Fellow, Richard Goldsbrough. He is the second to choose to base his year's work with SRU. Is it a sign of the times that his major interest is in science communication? I think he has a lot to offer us in the coming year.—Editor

Hi, I am Richard Goldsbrough, a science and horticulture teacher from Onslow College. I have joined the Science and Research team for 2004 as a Weed Education Officer. Amber Bill of Weedbusters and Julia Wilson-Davey of Landcare Research requested a teacher to help them take Weedbusters and biological weed control into schools. They assisted me to apply to the Royal Society for a NZ Science, Mathematics and Technology Teacher Fellowship. Needless to say we were successful.

Since first joining Onslow in 1975 I have been teaching science, senior biology, and horticulture to generations of students. This is no exaggeration, as four years ago the first child of a former student appeared in my class. This was a strong suggestion to me to have a change. This is not my first foray out of teaching as I did a spell of bus-driving and travel to Europe in the 1980s.

Richard Goldsbrough at DOC.



Horticulture is my favourite subject as it gets me outside with the students growing and planting trees. With the support of Nigel Clark of the Greater Wellington Council and the Trees For Survival programme sponsored by Rotary Clubs of New Zealand, we have planted hundreds of natives along streams and estuaries. I am continually amazed that so many students have no experience of sowing seeds and seeing plants grow. They and I get such a buzz out of it. My interest in organic production and biological control of pests dates from my years at Lincoln College (it became Lincoln University), where Bob Crowder was an influential lecturer.

After the last three years of upheaval, as we prepared for and then implemented NCEA (National Certificate of Educational Achievement), I am enjoying the prospect of having no assessments or reports to do this year. I look forward to the interesting challenges NCEA will throw up for schools over the coming years.

In the meantime, however, I am looking forward to my year with DOC.

REPORTING BACK

'If you can't beat them, eat them!'

In the first week of November 2003 I attended a large weed meeting in Fort Lauderdale, Florida. One conference had a more ecological focus, the other a more management focus, but both aimed to get scientists and managers talking together. If participation is anything to go by, lots of people thought this was a good idea—800 people attended and 40 organisations contributed money or people power. During the week there were 12 plenary presentations, 169 invited talks, and 72 contributed talks plus over 200 posters. What a feast!

Susan Timmins reports on weed conferences in Florida: Invasive Plants in Natural and Managed Systems (IPINAMS), *held in conjunction with the* 7th International Conference on the Ecology and Management of Alien Plant Invasions (EMAPi7), *3–7 November 2003, Wyndham Bonaventure Resort Fort Lauderdale—Editor*

General topics ranged from pathways of weed invasion, predicting invasiveness, early detection, ecological impacts, genetics, biocontrol, economic impacts, propagule pressure, priority setting, and managing weeds with limited resources—all relevant stuff for a DOC weedo.

Many workshops addressed prediction, early detection and priority setting. Dick Mack suggested that whether or not a plant species will become a weed in a new country/area seems to be a function of: biological attributes × environment × circumstances. Circumstances involve factors such as: how much cultivation the plant receives, population size, and prevailing weather. So, there's the rub—circumstances are not always predictable and some of them are dictated by that fickle factor: people. Several speakers mentioned the link between people, propagule pressure, number of naturalised species, and weediness of an area. Eduardo Rapport reported that a disproportionate percentage of the world's worst weeds are edible, probably because they are camp followers—'If you can't beat them, eat them!'

Cypress over sawgrass, Everglades, Florida.

Carla D'Antonio, in summing up the conference, listed five reasons why weed science wasn't always implemented in management: fuzzy goals, setting goals too low, poor communication by scientists on how to use new tools, bureaucratic barriers, and limited funds. Sound familiar? She also emphasised the need to work on outreach and advocacy—letting people know that they are both the vector and the victim. Perhaps it would help if we translated ecological impacts of weeds into a currency that people understand, i.e. dollars.

To end on a warm fuzzy note, Hal Mooney, in his summing up, said that the US is the gorilla of weed science and management, but that the talent in this field is disproportionately to be found in New Zealand, Australia, and South Africa.

Susan Timmins
SRU, Wellington

Threatened Island birds workshop

This workshop was organised primarily for DOC managers and scientists who are directly or indirectly involved with the University of Otago's five-year DOC contract investigating the role of inbreeding and loss of genetic diversity in increasing the risk of extinction of island populations of threatened birds. The main aim of the workshop was to provide background and outline the objectives of the University of Otago's research programme. A secondary objective was to bring together researchers from various universities and DOC managers with responsibilities for islands within the South Island region.

Ian Jamieson reports on the 'Threatened Island Birds' workshop which was hosted by Ecology Research Group, University of Otago. It was held on 17-19 June 2003, at Olive Grove Lodge & Holiday Park, Waianakarua, in North Otago.—Editor

The researchers provided an update of the present knowledge of conservation genetics theory, its application and techniques, while the managers provided feedback on the current requirements and protocols for managing islands. There were 30 invited participants including 10 from DOC's conservancy and area offices in the South Island as well as from the Science & Research Unit.

Although introduced predators remain the main factor limiting species recovery in New Zealand, a large proportion of our threatened species are now protected on island refuges. Questions DOC would like answered are:

- What other factors might affect the viability of these small 'predator-free' island populations?
- What role, if any, does inbreeding and loss of genetic variation play?
- Should DOC be considering managing island populations in the short- and long-term to minimise inbreeding and loss of genetic variation?

The workshop provided some background information of the potential effects that inbreeding and loss of genetic diversity might play in increasing the risk of extinction of island populations of threatened birds, although other issues dealing with the management of island populations were also covered.

A summary of the topics covered on the second day of the workshop included:

- A basic introduction to conservation genetics and molecular techniques
- The reasons why most conservation biologists outside New Zealand hold grave concerns over small, isolated populations
- Recent evidence of inbreeding depression in New Zealand bird populations
- Factors that might be limiting the recovery of the highly threatened kakapo
- Consequences of small population size in island populations of tuatara
- The potential threats of disease to island populations
- Preliminary reports and research proposals from students of the University of Otago working on island popula-tions of saddleback, robins and takahe
- Preliminary findings from a study of mohua released on Nukuwaiata Island
- A large-scale study of stoat reinvasion rates of inshore islands in Fiordland
- Arguments for a more formalised island translocation strategy

A new Science & Research Investigation: 'The role of inbreeding and genetic diversity in maintaining long-term viability of threatened species' (no. 3576), has recently commenced. The study aims to answer fundamental questions about the importance of genetic issues for threatened species management. It is co-ordinated by Ian Jamieson of the University of Otago, and involves close collaborations with DOC in Southland and Nelson / Marlborough along with the University of Canterbury. This project is developing into a model of how to transfer scientific knowledge to those who need it—from the outset of the project. The Threatened Island Birds Workshop was a first step in this process.—*Editor*

REPORTING BACK

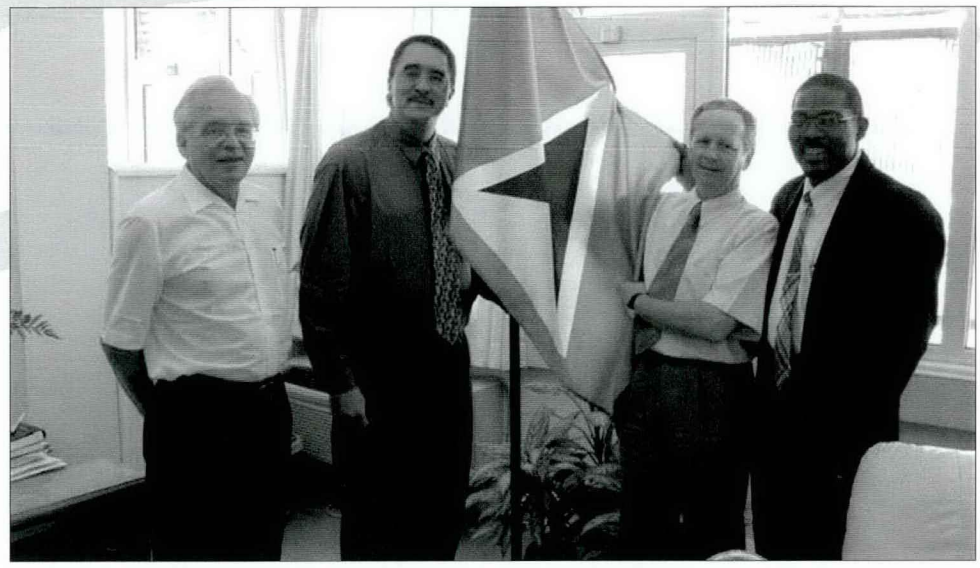
The workshop ended with a discussion of some of the issues raised during the talks, and a chance for participants to comment on what they consider to be their main concerns over the management of island populations of threatened species.

At the workshop new evidence was presented that showed inbreeding can have detrimental effects on island populations, although the extent of these effects and how general they are (in the New Zealand context), is still unknown. These negative effects, when they do exist, appear to be quite subtle. It was concluded that inbreeding by itself is unlikely to be the sole determinant of population decline, but loss of genetic variation could make island populations more susceptible to environmental perturba-tions or foreign pathogens. Even a slight reduction in population growth due to inbreeding depression could slow the rate of population recovery. Nevertheless, it was agreed that any recommendation to introducing new genetic stock to a highly inbred population would have to be carefully weighed up against other management concerns such as minimising disturbance, ensuring transfers are cost-effective, and preserving whakapapa (or blood lines) of taonga species of specialinterests to iwi.

Further information about the workshop including abstracts of talks and an abridged transcript of the concluding discussion can be obtained by contacting Ian Jamieson at <ian.jamieson@stonebow.otago.ac.nz>.

SRU Science Manager on an international mission

In January 2004, Paul Dingwall joined a technical mission for the World Conservation Union (IUCN), to help to evaluate 'les Deux Piton' for World Heritage Status. The twin spires of Gros Piton and Petit Piton are striking cone-shaped volcanic peaks on the island of Saint Lucia. They form one of the scenic natural highlights of the Caribbean. The photo shows Paul at a meeting with the PM of Saint Lucia.



(*L to R*) Jim Thorsell (IUCN Technical Advisor), Prime Minister of Saint Lucia the Hon. Dr Kenny D. Anthony, Paul Dingwall, and the Director of Saint Lucia's Parks, Martin Satney.

LETTERS

Natural hazards

This letter follows upon the discussion of the effects of sudden catastrophe on the natural world. James Goff was the first Principle Regional Scientist for the Central Region, and is a specialist in this field—Editor.

I am writing in response to the interesting 'Point of View' article (*Con-Science Newsletter 48*, 30 October 2003). The article, by Steve Urlich, is about the need for contingency planning in the Wellington Conservancy with respect to natural hazards (earthquakes and their after-effects in particular). This brought to mind several issues which are becoming of more concern to me in my research on natural hazards, and some points I have raised in earlier work for DOC. Some of the potential implications of earthquakes and their after-effects for DOC-managed estate were reported in:

Goff, J.; Nichol, S.; Chagué-Goff, C. 2001. Environmental changes in Okarito Lagoon, Westland, New Zealand. *DOC Internal Series 3*. Department of Conservation, Wellington. 30p.

- Ecosystem resilience is reduced. Okarito Lagoon and its margins are more susceptible to invasion of aggressive pest/weed species in the aftermath of a catastrophic event.
- Following the next large, local fault rupture there will be a sustained degradation of the environment. It is probable that the gradual recovery of Okarito Lagoon and its margins will be marked by significant and irreversible changes in ecosystem structure. The community will face numerous problems, namely; ground shaking, tsunami inundation, flooding by higher lagoon / lake levels, increased amounts of windblown sand, and probably numerous aftershocks.
- The broader regional context acknowledges that these catastrophic events are not merely local, but affect a considerable length of coastline ... Therefore, it is not just the local ecosystem that is affected, but also those of Southland, Fiordland, and Westland—these contain many unique ecosystems that are now oases surrounded by a fundamentally altered environment.

I have edited these points slightly, but there is a clear message here to which Steve Urlich alludes in his article. In the case of the Wellington Conservancy, one of the main areas of concern appears to be threatened lowland ecosystems and their vulnerability to sediment smothering. However, liquefaction from ground shaking, widespread forest disturbance, land sliding, river aggradation, river channel changes, rapid coastal dune building, tsunamis, and aftershocks can and will affect many areas of DOC-managed land. There are, therefore, serious implications for most or all threatened flora and fauna, especially those that occupy delicate niche environments.

I believe the issue of natural hazards is even bigger for DOC. What about public access? Let us take the Great Walks as an example. My wife and I recently walked the Kepler Track, but when I went to book this on the Internet I noted with interest that, due to the recent Fiordland earthquake, the track was not in a great condition. I wondered if DOC had budgeted for such an event? This was a pretty minor earthquake in a country that is prone to such events, perhaps this was a 'shot across the bows' to warn the Department. As information filtered through to me about landslides, tsunamis, aftershocks, and damage to DOC infrastructure I realised that the Department had been very lucky. Yes, there had been damage, but it could have been much, much worse, and perhaps the most important thing to consider right now is that it **will** be much worse, not **might**. One of the cardinal sins that we all make to varying degrees is thinking that it will not happen to us. A colleague of mine was once quoted as saying, 'a tsunami is like a bus, every minute that it does not arrive, makes it more likely that it will arrive inthenextminute'. This applies

Opinions expressed are those of the contributors, and do not necessarily represent the policy of the Department of Conservation

to nearly all natural hazards, not just tsunamis.

It is not just a Southland problem either. One can reel off a list of active faults and volcanoes (with similar after-effects, to which you can add ash-fall) which will affect every conservancy in the country. It may seem a peripheral issue to many DOC staff, but if they stand back for a minute and ponder their 'patch'—their main interests: infrastructure, flora, fauna, public safety, education, external relations, budgeting, personnel, etc., they may change their mind. The special character of New Zealand, which DOC is working hard to preserve, owes its existence to past hazardous events which have been occurring for millions of years. These will continue.

A significant component of my work as a scientist working on natural hazards is education and awareness. I would like to commend Steve Urlich for raising the spectre of earthquakes and their after-effects. That is not to say that we should panic or stick our heads in the sand. New Zealand is a country that has more than its fair share of natural hazards, and we need to learn to live with them. Like any other issue they can be managed, strategic plans can be developed, mitigation policies for priority concerns can be put in place, and we can all become better educated on the subject. Of course, we could take the alternative option and simply bury our heads in the sand ... Choose your spot well, though—this is a dangerous pastime in an earthquake-prone country!

Keep up the good work with *Con-Science*, it makes for an interesting read.

Yours sincerely

James Goff

GeoEnvironmental Consultants
11 The Terrace, Governor's Bay
Lyttleton, RD, Canterbury
15 December 2003

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Out of Africa

This is the last letter from Greg Sherley, who has since returned home, to once again be Principle Regional Scientist (Central), and a co-worker on the Science Communication Programme—Editor

Greetings

Sorry about the delay writing my 'monthly' missive. There has been a lot happening! The job has been characterized by continual pressure and stress brought on mainly by an artificial time constraint — having to spend so much money (really get rid of it entirely: not just commit it) by 31 December and the complete dissolution of the governance structure of the Global Invasive Species Programme. On the up side we now have all professional staff hired and every one of them is top class. Hence I have realized one of my professional dreams of working with a select team of top professionals working on a single issue. It is amazing how so few people can achieve so much, especially with the above constraints.

It has been heartening to see (I count) four programme officers principally involved with invasive alien species—an increase of three since I left. There has been an increase in the number of programme officers in other areas of biodiversity of conservation. New Zealand Government and New Zealanders generally can take a lot of pride in the influence they have had in these respects. Having sat through yet another Convention on Biological Diversity technical meeting (the SBSTTA), I fully endorse simply getting out and doing it—in a planned

and managed way of course. It was worrying for me to see only a quarter (approx.) of eligible countries from the Pacific region in attendance, about one third from the Caribbean, and other developing regions well down. Talking to friends and colleagues the general consensus was that many had given up on the CBD. And that is understandable, listening to the time and energy wasted on wording and imagined problems with decisions. The CBD technical committee and conference of parties has unfortunately completely lost touch with reality. A great shame.

Other trips have been to the USA—Washington, DC where nationalism is alive and well. But the USA has been a strong supporter of the Invasive Species programmes I have been involved with, and the support (real dollars) has come with few strings attached. They are (correctly) scared about the biosecurity risk IAS presents, and so should all countries such as New Zealand. We are all basically completely vulnerable—much like someone lying across a lane on a motorway at peak traffic times. We could be hit at any second. The country (USA) is still beautiful as evidenced by Black Water Reserve where I saw a natural history wonder: great Vs of Canada geese and other species, honking inland—all against a cold crisp autumn sunset. Visited Florida and stole away from the conference to visit the Everglades National Park—talk about mossies!! I heard of a kiwi mate who had gone fly fishing but gave up. Saw an osprey take a turtle, diving down on it from on high. It was mainly interesting to see this habitat type. Did not see too many of the migratory bird species passing through, but certainly enough to bring me great pleasure. It was great to enjoy birds for their own sake nowadays, and not as a research or professional item. My overriding impression of Florida was super flat, and the most modified landscape I have ever seen. This was brought home by driving through the managed land, before seeing some of what was original (all relative of course). The scale of market gardening was something to be believed. The water-table management is also huge: employing thousands of people. Tried hiring a car to visit the Talahatchee reserve, but the torrential rain and complex roading stopped us even getting to see it—an exercise in frustration and fear.

Here in Africa I am still managing one adventure a week (Sunday) which involves something outdoors and usually somewhere new: bird watching, or checking out plants. (You cannot call yourself an ecologist here and not get into plants; the cycling of flowering displays have to be seen to be believed.) So these Sunday jaunts constitute my church-going.

Anyway, the family is coming over on 22 December for nearly a month. We are driving the garden route (or approximately) in an old Merc 260E, with a mate from New Zealand.

Hope you are well.

Yours, Greg

RESEARCH IN PROGRESS

Social acceptability of stoats and stoat control methods:
Focus group findings, and a telephone survey

We conducted two studies into the public's perception of stoats. The first study examined New Zealand public and interest-group perceptions of feral stoats and other mustelids, and attitudes to their control. Following on from this earlier qualitative research, a telephone survey of members of the public was conducted to assess attitudes to conservation, stoats, current stoat controls, and potential new biological control methods.

We present here notes on two studies in the public's perception of stoats, and eradication methodology. The studies were conducted by two different methods: the first qualitative, which was subsequently confirmed by a quantitative survey.
—Editor

The first study (in 2001) examined perceptions of feral stoats and other mustelids, and attitudes to their control. Seven facilitated focus group discussions were conducted throughout New Zealand: three with the general public, and four with particular interest groups. Stoats were perceived negatively, especially for their predation on native fauna. Participants in the public groups were largely uninformed about stoats, in contrast to those in the interest groups. Trapping and poisoning, the current forms of control, were perceived as having problems, with trapping preferred over poisoning. Proposed new forms of control under investigation, in particular the use of introduced diseases and genetically engineered organisms designed to kill stoats or reduce their fertility, received a largely negative response from the groups due to concerns about lack of knowledge, and unforeseen effects and risks. More research on GE in particular was seen to be required. There was a consequent clear preference for improving the current forms of control. Participants felt the public should be involved in any decision-making about GE-based controls. However, public education about the stoat problem and any proposed biotechnologies will be required if there is to be such participation.

Following on from earlier qualitative research, a telephone survey of a representative random sample of 1002 members of the public was conducted between March and June 2002 to assess attitudes to conservation, stoats, current stoat controls, and potential new biological control methods.

The survey found that there is widespread support for controlling stoats. There is also widespread support for improving stoat control methods. In practise this support extends only to researching and developing trapping, with an emphasis on fatal forms of trapping. The public are clearly uncomfortable with using poisons to control stoats. In terms of biological controls, the public does not support the use of diseases that could affect other animals, and there is clear opposition to the use of a virulent strain of the Canine Distemper virus. New potential forms of control designed to reduce the stoat's fertility are only marginally acceptable. However, the public is less supportive or ambivalent about the practical use of genetic engineering of organisms to develop and/or deliver the fertility control.

The level of public support for existing and potential new forms of stoat control is likely to be determined by the specificity, humaneness, and effectiveness of the control, with cost being a relatively minor consideration. We found that the New Zealand public, at this time, is unlikely to support the development of biological

What is a focus group?

Focus groups are, as Morgan (1988) notes, 'basically group interviews', where 'the reliance is on interaction within the group, based on topics that are supplied by the researcher, who typically takes the role of a moderator. The fundamental data that focus groups produce are transcripts of the group discussions' (p.9).

The focus group methodology has been in use by social scientists for over 50 years, having been first reported by Robert Merton and Patricia Kendall (Merton & Kendall 1946) and developed by Merton and Lazarsfeld and others in subsequent decades.

In focus groups, interactions between the participants are encouraged to stimulate discussion, thereby eliciting the participants' beliefs and values. Follow-up questions are used to deepen the discussion. The hallmark of focus groups, according to Morgan, 'is the explicit use of the group interaction to produce data and insights that would be less accessible without the interaction found in a group' (Morgan 1988, p.12). A series of 'thematic' questions may be put to the group, like everyday conversation or argument, the discussion is frequently non-linear. The moderator's primary role is to ensure the set topics or themes are canvassed without stifling the (often non-linear) free exchange between the participants. As such, focus groups are 'better suited to topics of attitudes and cognitions'.

controls for stoats, including controls that make use of genetic engineering. The most socially acceptable and sustainable option for researchers and decision-makers would be to focus stoat control development on trapping.

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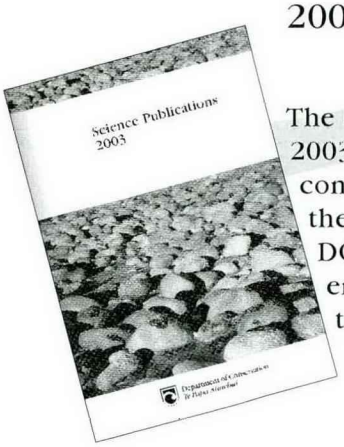
2003 Catalogue



The catalogue of all DOC science publications which came out in 2003 is now available. This little booklet lists titles by series, and contains a full index of author names. Printed copies of this, and the catalogues from previous years, are available from

DOC Science Publishing
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RESEARCH IN PROGRESS

Working TOGETHER to develop better rat protection for offshore islands

New research aimed at improving our knowledge of what ship and Norway rats do when they invade islandsgot underway this summer on islands off the North Island. The new knowledge will then help conservationists develop more effective methods to prevent rats re-invading islands. The research will also guide efforts to restore islands after rats are removed. If we know exactly what damage they do, such as to seabird populations and plants, we will better be able to assist the recovery of island ecosystems after rats are gone.

An ambitious new research programme on island rat invasion got underway this summer on islands off the North Island east coast of New Zealand. The five-year collaborative research programme is funded by New Zealand and United States agencies. —Editor

New Zealand is well-known internationally for its success in ridding offshore islands of unwanted predators (cats, rats, stoats, and ferrets) and creating

Conservation Science Newsletter No. 49, 23 April 2004.remote sanctuaries for threatened native species that no longer survive on the mainland.

With technology such as helicopters and GPS, we have become skilled at getting every last rat off islands. Rats have been removed from about 40 islands larger than five hectares, many of which now have restoration projects under way. But some island eradications haven't been so successful, and rats have found their way back.

Using controlled rat invasion experiments and computer modelling, new research led by University of Auckland and DOC staff will shed light on what rats do when they hit the beach, and how fast they multiply and spread once they're ashore.

Before the arrival of introduced mammals, many of the offshore islands of New Zealand were home to large numbers of burrowing seabirds, which enriched the soil with manure and fertilised the plants. Rats decimated these seabird populations, along with the high numbers of lizards and tuatara and insects that also lived there.

The new research is a unique partnership between Landcare Research, University of Auckland, University of Alaska, and DOC. Understanding the effects of rats on seabirds and the relationship between seabirds and island plants, will help us plan for what it takes to restore these crucial parts of island ecosystems.

The 20 islands in the study range from the Poor Knights Islands, north of Whangarei, to islands off the Coromandel Peninsula. Agreements have been made between DOC, private landowners, and local iwi, so a range of different islands can be included. As some of these islands are prone to regular visits by rats anyway, they are suitable for controlled eradication and re-introduction experiments.

One of these islands is Hauturu Island off Whangamata Beach. Hauturu Island is at present infested with rats and mice which invade from the mainland. The owners of the island, Ngati Puu see the research as an opportunity to re-establish the health and beauty of all three islands—Hauturu, Whenuakura, and Rawengaiti. Ngati Puu would also like to develop an ongoing management programme, alongside all concerned, so that the values of the islands can be restored and enhanced for generations to come.

Most of the research projects will take three years, with the entire study complete by 2008. By then we should know a lot more about keeping rats off our precious conservation islands, and restoring them closer to the way they once were.

David Towns
SRU, Auckland

A great life

Ollie joined the Bank of New Zealand Kiwi Recovery in 1991 when he was just eight weeks old. He went to live with Hugh Robertson, the first co-ordinator of the newly sponsored effort to save New Zealand's national bird.

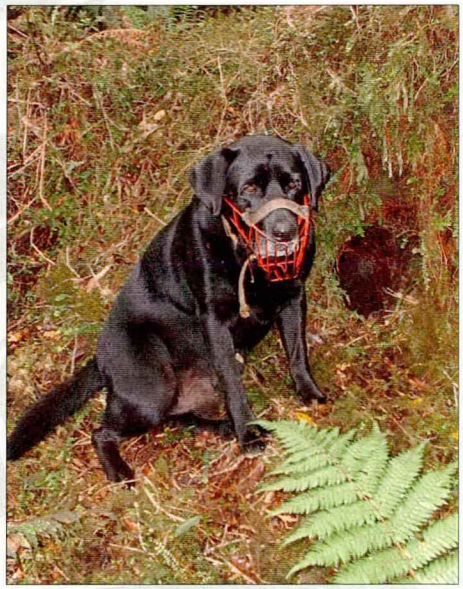
Ollie in his prime.
Photo: Bruce Southwick

But Ollie was not alone in this Kiwi Recovery work. As well as Hugh, many other family members worked in the same cause. Ollie's big sister Lucy was the senior working dog, and Hugh reports that Ollie got to follow 'auntie' Lucy around, getting a reward when Lucy found a kiwi. It wasn't long before Ollie got the idea and found his first Kiwi, and so began his life as a species protection dog. Later Ollie worked with Oscar, a younger grandson of Tess, who joined the unit when Lucy retired.

Working life included walking hundreds of miles in search of well-hidden birds. Scrambling through the undergrowth was hard work. He had to wear a heavy uncomfortable muzzle, which often chafed, and left open sores on his nose. In his approximately eleven working years Ollie found over 500 kiwi and had between 3000 and 4000 encounters with kiwi. Ollie more than earned his dog allowance by finding kiwi with transmitters which had failed, and which would otherwise have taken weeks to find.

Ollie's efforts supported Hugh's research and work to help save kiwi by:

- Understanding and mitigating threats to kiwi in Northland
- Understanding population dynamics of the little spotted kiwi
- Genetics of kiwi
- Monitoring all banded species of kiwi



Oscar marking a kiwi burrow.
Photo: Rogan Colburne

Ollie with his last kiwi.
Photo: Bruce Southwick

IN MEMORIAM

When not out in the field, most of Ollie's working life was spent lying near the door of Hugh's office in Tory Street, Wellington, where he served as a stress relief focus for other staff. Petting Ollie was a very relaxing experience for the staff. Ollie took it all stoically: just another hard day at the office!

When Science & Research moved to Victoria Street, Ollie was no longer allowed to accompany Hugh to work, so Ollie spent his spare time at home with Hugh's family. In early 2003 Ollie retired. His last field trip was filmed by The Holmes Show. His official retirement was in May 2003.

Ollie was twelve and a half this year when he died at home with Hugh and his family. Species protection dogs work hard, and do not often have long lives. Ollie's career may not have been long, but it was a great life!

Kaye Green

Ollie in retirement, enjoying winter sports with his last family.
Photo: Hugh Robertson

BOOK REVIEW

Sports turf and amenity grasses: A manual for use and identification

By D.E. Aldous and I.H. Chivers; Landlinks Press; Collingwood, Australia. Available from Manaaki Whenua Press, Lincoln. NZ$95.65.

This is a great book if you're interested in grasses, and especially in sports turf. It's hard-covered in a soft-back world, with an attractive front cover. Inside it's full of useful, practical information on turf grasses. Its sensible pictorial keys help readers identify the species of grass, excellent coloured drawings demonstrate the main vegetative features, and its text high-

lights the uses, advantages and disadvantages of each species. There are also useful diagrams, for each of the more important grass species, showing its tolerance for temperature, drought, close mowing, shade, and so on.

Weed grasses like *Poa annua* and *Paspalum* are included, and the book points out that such grasses, although often unavoidable components of some turfs, can also have their advantages in some circumstances.

The entries are classified into major and minor grasses, major grasses being those most commonly found in turf, and minor the less common ones, or those often appearing as volunteers in sown turf. Each of the two main groups is sub-divided into warm season, summer-active grasses and cool season, winter-active ones. The common names used in this book are those used in the United States, but a table near the beginning cross-references to common names used in Australia, Europe and Asia / Africa.

The book, by Australian authors and produced in Australia, is expensive in New Zealand, at $95.65. It does carry a recommendation on the back cover, by Keith McAuliffe, head of the NZ Sports Turf Institute, but some of the grasses described would be unlikely to thrive in New Zealand. Indeed, ERMA might not even allow them entry, because some are not known to occur here and several, including *Paspalum vaginatum*, are already making their presence felt as invasive weeds.

Each 'major' grass has a two-page spread, with excellent coloured drawings of vegetative structure, a photograph of a turf made up of the grass and another showing the general nature of isolated individuals of the grass. The former photograph, almost always featuring a golf ball, shows the general appearance of the turf and the fineness of the grass leaves, but little else: the latter is more useful showing, as it does, the general form of the grass. Each 'minor' grass features a single page and a photograph which sometimes shows thegeneral appearance of a turf, and sometimes a single plant.

The text for major species is clearly divided into description, common and other uses, positive and negative features, general comments and diagnostic features. Minor species merit slightly less detail. Major species feature a 'Sowing, growing and mowing' box showing suggested sowing rates and mowing heights, and also charts of tolerance of conditions like High temperature, Drought, Close mowing, Low fertility, Frost, Shade, Wet soil, Wear and Salinity. Useful indeed as a general guide to the sort of conditions in which each grass can thrive or survive.

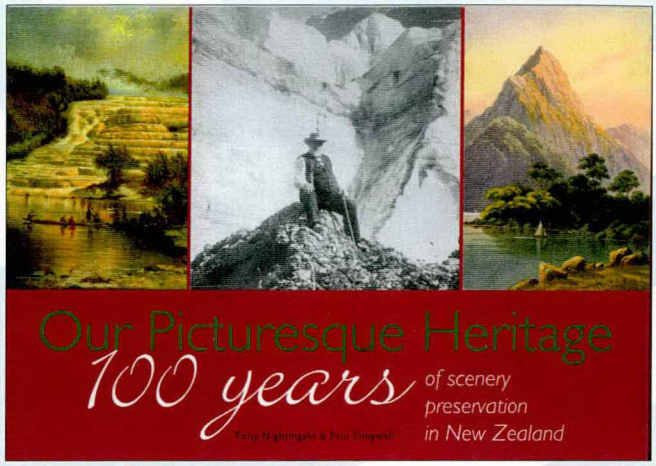
The pictorial and easy-to-use keys are special feature of this book. The keys are dichotomous, each step giving two (or rarely three) alternatives, but words are few and clear line drawings show the route through the key. The coloured line drawings of each major species were also a highlight for me, and help the identification of species from their vegetative characters.

Because of New Zealand's cooler climate, this book is useful here for the cool season grasses, but of mixed value for warm season ones. The book is still useful to grass enthusiasts, all of whom would find something of interest to them within its pages.

Ian Popay
SRU, Hamilton

NEW PUBLICATIONS

100 years of Scenery Preservation in New Zealand



In November 1903 Richard Seddon, the premier of New Zealand stood up in Parliament, and introduced a new piece of legislation saying, 'The time has arrived in the history of our colony when our scenery should be preserved, when the historic and beautiful places should be for all time conserved...' and the Scenery Preservation Act came into being. There was enthusiastic support for such an idea: Sir Joseph Ward, Minister of Tourist and Publicity wanted to encourage the tourism industry based on the country's gorgeous scenery. Scientists were becoming concerned about the loss of indigenous flora and flora. The Polynesian Society was keen to see sites of historic interest preserved. Many other interested and concerned groups and individuals recognised the value of scenic reserves for recreation.

In November 2003 DOC commemorated this important event by publishing *Our Picturesque Heritage: 100 years of scenery preservation in New Zealand* by Tony Nightingale and Paul Dingwall.

As well as being a commemoration, this book looks at the ideas that motivated people at the time, and in the years since: ideas about scenic beauty; the emergence of ecology as a concern; and the demands of tourism. The book has been lavishly illustrated using many contemporary images, including portrait photographs of many of the principal players.

Available from DOC Science Publishing, PO Box 10-420, Wellington. $29.95.

We can accept cheque or credit card payments. Tel. 04 471 3285:
Fax. 04 496 1929.

The preliminary pages can be viewed on DOC Science Publishing's webpages: www.doc.govt.nz > Publications > Science and Research > Miscellaneous

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