



FIORDLAND COASTAL NEWSLETTER

April 2009

Kia ora from the Biodiversity Team at DOC, Te Anau. This issue contains updates on coastal weed control, Judas deer work on Secretary Island, didymo, transfers of mōhua, South Island robin/kakaruaui, kokako and rock wren to predator-free islands, a recent marine biodiversity survey and a new book on the Fiordland Marine Area.

A fond farewell to 'An Exceptional Ranger'

This month will see the departure of Murray Willans from the Department of Conservation and his role as manager of the biodiversity programme in Te Anau. His work for DOC over the past 19 years has been phenomenal and he has made an enormous contribution to conservation. Among his many achievements, Murray has been instrumental in establishing mainland stoat control.



In the time Murray has worked in Te Anau there has been a huge increase in the drive and passion that many people have had in protecting Fiordland.

"His work with businesses, community groups and land owners has been arguably his greatest achievement" said Reg Kemper, Te Anau Area Manager. "His ability to connect people to conservation has brought huge benefits to Fiordland".

Te Anau's biodiversity programme has grown significantly under Murray's leadership. Complex large-scale restoration projects, such as the Blue Duck Recovery Programme and pest eradication projects on Secretary and Resolution Islands, are now underway in Fiordland – some at a scale not seen in New Zealand before.

Murray will be greatly missed, but fortunately for Te Anau, he is not leaving the area. "I suspect conservation has not seen the end of Murray Willans yet" said Mr Kemper.

Taking over from Murray, we welcome Lindsay Wilson into the role. Lindsay has moved from DOC in Opotiki, where he managed biodiversity threats with a particular focus on rats, stoats, deer and goats.

Above – Murray Willans, leaving DOC after 19 years.

Below – Ten North Island kokako (below) were released on Secretary Island late last year.
R Colbourne

The kokako returns to the fiords

In October and November 2008, the Department of Conservation, in partnership with the Fiordland Lobster Company, captured 10 North Island kokako from Mapara Reserve near Te Kuiti and transferred them to Secretary Island in Doubtful Sound/Patea. This was the first of a series of transfers aimed at establishing a kokako population on Secretary Island.



These kokako will restore a component of the ecosystem lost with the disappearance of the South Island kokako. It is a significant step in the ecological restoration of Secretary Island and Fiordland. Transferring kokako to Secretary Island will pave the way for the species to spread to other predator-free islands throughout Fiordland.

Secretary Island has huge potential as a kokako habitat due to its large size (8140 hectares) and rodent- and possum-free status. Once the stoats are completely eradicated it will provide the single largest predator-free area for a kokako population in New Zealand.

The Fiordland Lobster Company's sponsorship of the kokako transfer and their support of island restoration projects in Fiordland demonstrates their commitment and passion for Fiordland. "The kokako relocation is another example of Fiordland Lobster Company's commitment to restoring and enhancing the biodiversity and environmental heritage of Fiordland's marine and terrestrial environment," says Mike Schuck, Chief Executive of the Fiordland Lobster Company. This attitude is reflective of the rising tide of environmental awareness found among the Fiordland community.

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Te Papa Atawhai

A new 'one stop shop' for Fiordland Marine Area information

New Fiordland User Guide now available

Over the past two years, the Fiordland Marine Guardians, Department of Conservation, Ministry of Fisheries, Ministry for the Environment, MAF Biosecurity New Zealand and the Southland Regional Council have been working together to realise the goal of producing an all-encompassing resource for the Fiordland (Te Moana o Atawhenua) Marine Area.

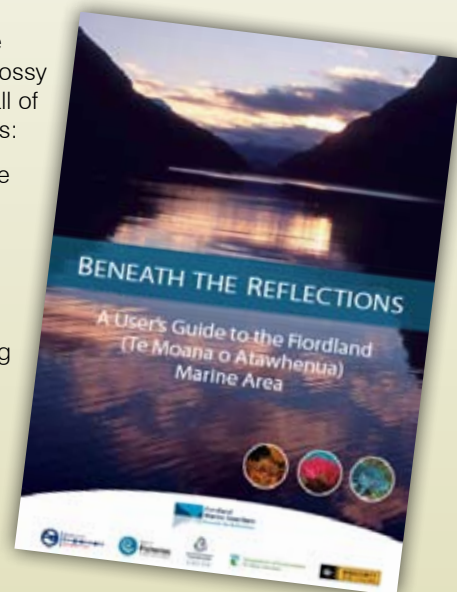
In October last year the guide was launched in Invercargill as a 'one stop shop' for visitors heading to Fiordland. Comprising over 130 glossy pages, the book is a fully waterproof, spiral-bound guide that puts all of the information about travelling to Fiordland in one place. It contains:

- Information on how the Fiordland (Te Moana o Atawhenua) Marine Area was established and how the Guardians came into being.
- An introduction to the Fiordland Marine Area; the history of the fiords and a section on physical and biological aspects of the environment.
- All of the relevant regulations, from fisheries information to boating regulations around marine mammals.
- A whole section dedicated to giving practical user information on visiting the area: where to anchor, how to travel and what you will need for your trip.

The guide also contains over 40 maps, 100 colour photographs and a number of diagrams and charts that help make it a good read, as well as an informative one.

The guide has been subsidised by the agencies involved and is available for a very reasonable \$15. The ultimate aim of the Guardians and the agencies is for everyone visiting the Fiordland Marine Area to have one of these guides. This way, people coming to Fiordland will be more informed, safer and many of the area's special features will be maintained for future generations to enjoy.

The books are available from the Department of Conservation's offices in both Te Anau and Invercargill, or via an order form available online on the Guardian's website: <http://www.fmg.org.nz>



Fiordland's underwater 'china shops' explored

Department of Conservation and NIWA staff have recently returned from a two-week trip aboard the Department's vessel, *Southern Winds*, diving, photographing, videoing and documenting the 'china shops' of the Fiordland (Te Moana o Atawhenua) Marine Area (FMA). These areas are so called because they contain fragile species or communities, a high abundance of a particular species, or outstanding diversity. The areas were identified by the Guardians of Fiordland's Fisheries in their *Fiordland Marine Conservation Strategy*. Some now have no-anchoring restrictions in place to protect the fragile marine life found there.

This project aims to provide detailed information about the characteristics of each china shop. Over the coming months NIWA will be working through the huge amount of photo and video records that were collected during the trip. This information will help ensure these areas are managed appropriately in the future so that their special characteristics are preserved. A number of specimens were also collected during the trip if experts were unable to identify the organisms in the field. Identification work has already begun on these specimens and it is believed there have been a number of new species discovered, which is a great addition to our knowledge of Fiordland's marine life.

The dive team also undertook monitoring surveys of key species such as blue cod, rock lobster and black coral in six of the ten marine reserves in the FMA. The team also carried out surveillance for marine pests at high-risk sites throughout Fiordland. More information and the full results of this work will be available in a report to be produced by the end of this year, so watch this space.

This work is part of the integrated management of the FMA by the Fiordland Marine Guardians along with central and local government agencies. For more information about the FMA and Fiordland Marine Guardians, visit www.fmg.org.nz.



Fiordland's 'china shops' contain a rich diversity of marine life.
Sean Handley

Fiordland National Park coastal weed control and surveillance

Weed surveillance and control has been conducted on an annual basis around the Fiordland coast since 1999. Coastal sites are at risk from ongoing weed establishment from vegetation or seeds washing down the coast and onto beaches, or from weed sites that are unknown or uncontrolled.

The two most common and potentially problematic weeds found along the Fiordland coast are gorse and marram grass. A number of other weeds also exist such as blackberry, tutsan, foxglove and montbretia, found around the old settlement sites in Preservation Inlet. Control efforts to date have been highly successful in reducing weed infestations along the coast.

2008 weed control trip

The 2008 weed control trip took place in November, with a team based on the DOC vessel 'Southern Winds'. The control and surveillance operation involved visiting a range of sites between Nancy Sound and Puysegur Point, checking where weeds have been found and controlled in the past, as well as visiting some likely sites for weed establishment.

Around 15 known small gorse infestations were found and controlled, with seedlings pulled out by hand and larger plants sprayed with Tordon. In addition, several hundred foxgloves were found at two sites in Preservation Inlet (these were also sprayed with Tordon), marram grass was found and sprayed with Gallant at two small sites in Chalky Inlet, and several species of exotic grass were found at a range of hut sites, including the old Deas Cove site. Encouragingly, many of the old weed sites that had been controlled in previous years were found to have remained weed free.

Arnoux's beaked whale sighting

People visiting and working in Doubtful Sound/Patea in early February were treated to a rare sighting of Arnoux's beaked whales. Around twelve of these seldom-seen animals were observed over a period of about a week, as far into the fiord as Deep Cove, and at times displaying boisterous behaviour. This photo was taken onboard the vessel *Breaksea Girl* and caused Anton van Helden, Te Papa's marine mammal specialist, to remark '*there are very few good images of this species anywhere the most wonderful photos I have seen!*'



Rock Wren – ensuring their long term survival

Currently DOC, in partnership with BDG Synthesis (a Wellington Chemical R&D company), are catching and transferring a group of rock wren to Secretary Island in Doubtful Sound/Patea, in an effort to secure the species in a predator-free site for the first time since the arrival of introduced predators to New Zealand.

Rock wren live their entire lives amongst the rocks, scrub, snow and ice of the Southern Alps. They've survived in the bleak mountain environment for thousands of years and remain an important link to primitive birds. Rock wren are among a group of birds unique to New Zealand and considered the most ancient perching birds in the world. Only two species survive today – rock wren and rifleman.

A detailed study in the Murchison Mountains in the 1980's found evidence of stoats and mice preying on rock wren nests. Twenty years later a survey of the same area found 40% less birds, and again stoats and mice were observed feeding on eggs and nestlings.

Stoat trapping in the Murchison Mountains and a number of other alpine ranges around Nelson, Haast and Aoraki/Mount Cook may be helping their survival, but unfortunately there is no cost effective tool for dealing with mice in the alpine zone, especially in plague years when massive tussock seeding boosts the mice population.

BDG Synthesis have fully funded the rock wren programme in Fiordland since it began back in 2003, which led to the translocation on Secretary Island – an important move for the protection of rock wren in case of further decline on the mainland.



Rock wren have been transferred to predator-free Secretary Island, thanks to the assistance of BDG Synthesis.
Jono More

Mōhua and Robin find sanctuary on Secretary Island

Secretary Island has been the focus of several releases of threatened bird species over the last 12 months. Mōhua/yellowhead and kakaruai/South Island robin have joined rock wren and kokako on this predator-free island sanctuary.

A total of 75 mōhua were transferred from the Dart Valley, near Glenorchy, to predator-free Secretary Island in October 2008. The birds taken from the Dart Valley are part of an estimated population of 2000 breeding mōhua found in the valley.

The purpose of this transfer is to establish a new, large population of the mōhua on Secretary Island. There have been several transfers of these birds to other predator-free islands in Fiordland and this one will hopefully further improve the status of the species with the establishment of a new population. It is hoped Secretary Island will support large numbers of mōhua, which in turn will allow for future transfers to other islands and also supplement diminishing mainland numbers.

The Department of Conservation would like to thank BDG Synthesis for sponsoring this transfer and DOC staff in the Wakatipu area for managing the capture of the mōhua in the Dart Valley.

A total of 54 kakaruai/South Island robin were transferred to Secretary Island from Breaksea Island in March 2008. The birds were caught using hand-nets, with some also captured in mist-nets during an operation to catch saddlebacks.

The kakaruai/South Island robin transfer was made possible by funding from the Fiordland Conservation Trust. Members from the trust were also involved in the capture and subsequent release of the robins.



Mōhua/yellowhead (above) and South Island robin/kakaruai (below) are two species recently released on predator-free islands in Fiordland.
Photos – B Harcourt

Pomona Island welcomes first species translocation

Pomona and Rona Islands, in Lake Manapouri, are now home to the South Island robin/kakaruai. In February, a total of 51 birds were caught by Pomona Island Charitable Trust members and DOC staff on Breaksea Island over three days and moved by helicopter and boat to Pomona and Rona Islands. Forty birds were released on Pomona Island (262 ha), and eleven birds on the smaller Rona Island (60 ha).

South Island robin/kakaruai were caught by attracting the birds with meal worms, then capturing them with hand-nets. The birds were banded with individual colour band combinations and kept overnight in boxes. They were delivered to the islands the following day, either by helicopter or boat. Additional birds will be caught from mainland Fiordland and transferred to Pomona and Rona Islands in the next couple of months to increase the genetic diversity of the island populations.

The robins will be monitored during bird counts undertaken several times throughout the year. The transfer will be hailed a success when unbanded birds are seen, indicating transferred birds have bred.

This transfer marks the first of several proposed transfers of Fiordland's threatened fauna to Pomona and Rona Islands. The Pomona Island Charitable Trust and the local community are now reaping the benefits of years of hard work eradicating five pest species from Pomona Island including stoats, rats, mice, possums and deer, as well as mice and stoats from Rona Island.

We look forward to the next translocation of threatened species to Pomona and Rona Islands, restoring Fiordland's unique fauna for all to enjoy.



Judas Deer for Secretary Island

The use of 'Judas' hinds is soon to be trialled on Secretary Island as part of the ongoing eradication programme for red deer. This technique has been used more extensively for goats and tahr which tend to live in large groups. A single animal is caught, fitted with a radio-collar and released back in to the area. This animal, known as a Judas, then hopefully joins up with any remaining mob of animals, allowing the hunter to locate and shoot the mob.

Trialling of the technique on Secretary Island in 2009 will involve the capture of two wild-reared hinds from mainland Fiordland and holding them captive for a period while being sterilised. The hinds will also be fitted with a hormone implant which prolongs oestrus – the period during which the animal is receptive to mating. After rehabilitation (approximately two weeks) the animals will then be released on Secretary Island with telemetry collars fitted.

Deer are not as suited for utilising Judas animal techniques as goats and tahr, due to the fact that they are not as gregarious and tend to live singly, or in very small groups, when a population is at low levels. However they do tend to congregate during the roar period. It is considered that using techniques developed to prolong oestrus in Judas goats is likely to make Judas hinds very effective during this period.

We expect that the Judas animals will significantly reduce the search time for both aerial and ground hunters locating remnant animals, now that the density is low. Current estimates put the Secretary Island population at fewer than fifty individuals. Five hundred and seventy deer have been shot since the programme commenced in November 2006.

This newsletter is available online at www.doc.govt.nz.

Alternatively, if you would like to receive this newsletter by email, please send a request to rkelsey@doc.govt.nz

For further information on any of the articles please contact the Department of Conservation, Te Anau Area Office, ph 03-249-0200.