

Annual Report

for the year ended 30 June 2011



**Fiordland
Marine Guardians**
Beneath the Reflections

The Guardians' vision

"That the quality of Fiordland's marine environment and fisheries, including the wider fishery experience, be maintained or improved for future generations to use and enjoy."

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Acknowledgements

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BACK COVER IMAGES: Divers about to enter water to collect kina for biocontrol purposes, *John Adams*; Seal, *Department of Conservation*; Fishing off the *CV Legacy*, *S Logie, MFish*; Ascidian, *G Hopkins and J Atalah, Cawthron Institute*; School groper catch, *S Logie, MFish*.

INSIDE FRONT COVER: Kina on the deck of the *GV Southern Winds*, coming back from the harvest sites in the Gilbert Islands, *Barrie Forrest*.

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Chairperson's report

The last year has been notable for a number of reasons.

First, it marked the 5-year anniversary of the appointment of the Fiordland Marine Guardians under the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005. The Act actually commenced in April 2005, but it was a few months before the Guardians were appointed by the Minister for the Environment.

Second, one of the provisions of the Act requires the Minister to carry out a review of the effectiveness of the management regime for the Fiordland Marine Area (FMA), put in place under the Act. A wide range of people were interviewed as part of the review and a report was sent to the Minister. The Guardians were then offered the opportunity to respond to points raised and to meet with the Minister to discuss the outcomes. I am pleased to say that the report was very positive and, in turn, our meeting with the Minister was also positive and he indicated his ongoing support.

Third, during the year the Guardians and agencies hosted the Minister of Fisheries, Hon Phil Heatley, on an overnight trip into Fiordland. These opportunities are invaluable in ensuring that Ministers experience the area first hand and have an understanding of what we are trying to achieve and the unique challenges that the area provides.

Fourth, the Guardians conducted its own review of the 2005 rules governing the FMA. With five years gone by, the Guardians felt that it was time to go back to the users of the FMA to get their views on how the rules had worked, what issues had arisen and what rules required amendment. We are currently considering the results of this exercise and they will help us form a list of recommendations for management improvements that we will discuss with the agencies.

I would like to thank all of the people who gave their time and thoughts to these reviews.

Fifth, the fight against *Undaria* (*Undaria pinnatifida*) in Sunday Cove, Breaksea Sound, has been ongoing. Ministers and senior managers within the agencies involved have recognised its importance and committed to providing resources. This is great, not only because it improves the chances of eradicating this pest organism, but also because it allows those carrying out the work to try new ideas and techniques that may also be used in other parts of New Zealand in the future. Trialling the use of kina as a natural biocontrol agent to suppress *Undaria* growth is one example. The idea for this trial came from agency staff speaking to a kayaker while carrying out one of their regular trips.

When thinking about these things it made me realise – and this may seem strange to say about an area that is largely uninhabited – that the biggest strength and ally the FMA has is people. Not only those that are paid to work in and for the FMA, but all people who have an interest and are willing to put forward ideas or to be involved at any level. Long may that continue.



Malcolm Lawson

Chairperson



FV EXPORTA INSPECTION OUTSIDE DOUBTFUL



SEA SQUIRT

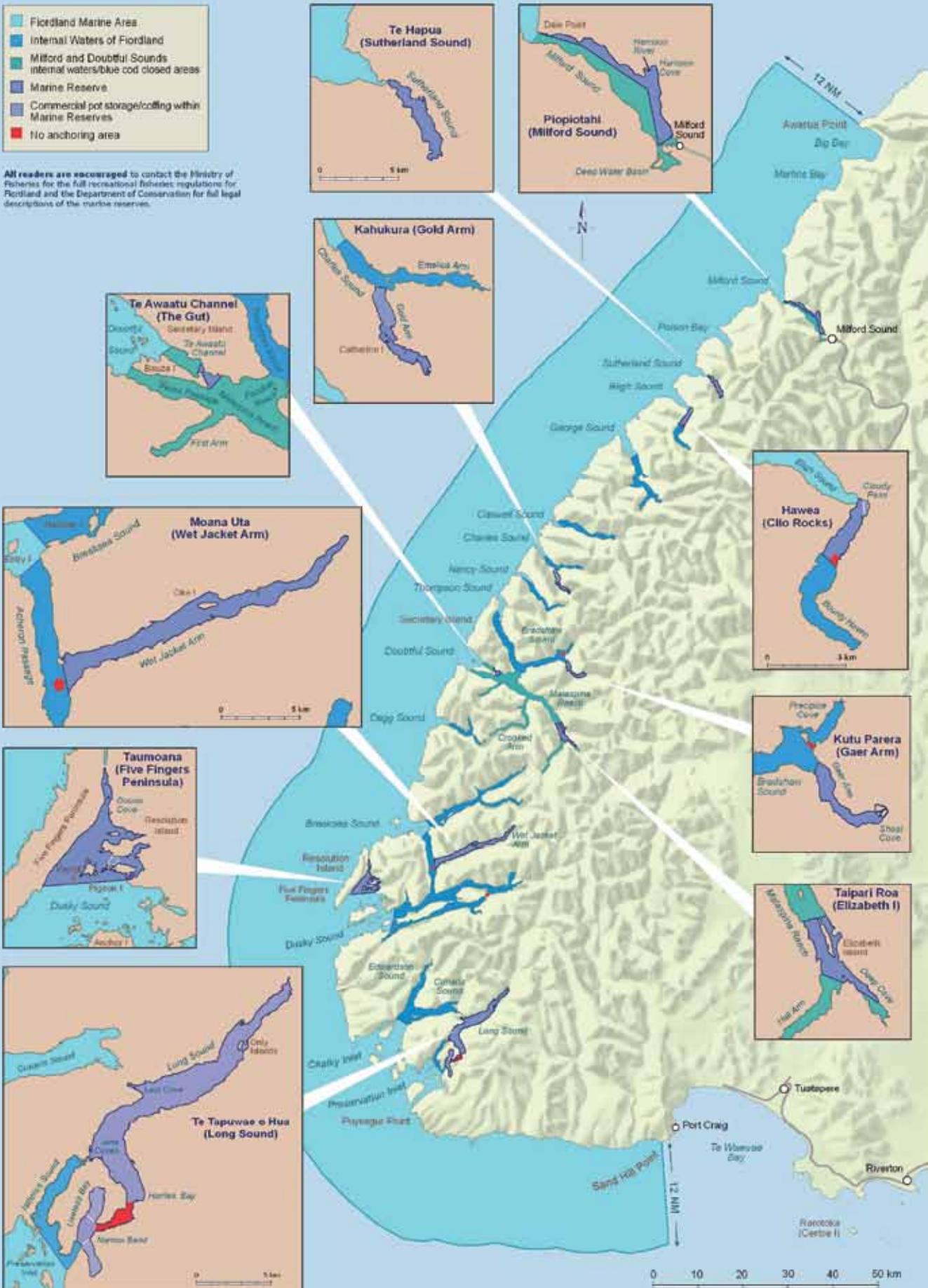


BREAKSEA SOUND

Fiordland (Te Moana o Atawhenua) Marine Area

- Fiordland Marine Area
- Internal Waters of Fiordland
- Milford and Doubtful Sounds internal waters/blue cod closed areas
- Marine Reserve
- Commercial pot storage/coding within Marine Reserves
- No anchoring area

All readers are encouraged to contact the Ministry of Fisheries for the full recreational fisheries regulations for Fiordland and the Department of Conservation for full legal descriptions of the marine reserves.



History of the Fiordland Marine Guardians

From the first steps in 1995, the Guardians of Fiordland's Fisheries and Marine Environment embarked on a unique journey. The goal was the protection of the region's marine environment by those who value and use it. It was the genesis of today's Fiordland Marine Guardians (the Guardians). The original group, endowed with first-hand knowledge, experience and a passion for the Fiordland marine environment, developed an integrated management strategy and, with support from the management agencies,¹ saw the Fiordland (Te Moana o Atawhenua) Marine Management Act enacted in 2005. The Guardians are now implementing the management programme.

The beginnings of an integrated approach

This process and its outcomes were a remarkable achievement. A variety of groups with very different interests had come together to share their views on how they could protect their own interests, and Fiordland, for the future. The groups included Te Rūnanga o Ngāi Tahu, commercial fishers, recreational fishers, charter boat operators, tourist operators, marine scientists, and environmental and community interest groups.

The original vision adopted in 1995 remains the same for today's Guardians:

That the quality of Fiordland's marine environment and fisheries, including the wider fishery experience, be maintained or improved for future generations to use and enjoy.

A shared vision was a fundamental first step towards merging interests and creating a group that could interact freely and constructively. Sharing information followed, and the value of first-hand knowledge and experience shone through. Gathering information from a wide range of sources also built up the cooperative team spirit.

Broadening the membership

In 2000, the group invited local government and representatives of central government agencies to join to provide a supportive advisory role. A complementary relationship soon evolved: the Guardians share information the management agencies need, and the agencies provide significant support to the Guardians.

Developing the draft conservation strategy in only two years required significant commitment. The group agreed on solutions for a number of issues. However, when one interest or sector benefited at the cost of another, the Guardians agreed that the advantaged party should give something in return, to help ensure that the greater good of Fiordland took precedence over competing interests. This became known as the 'gifts and gains' philosophy, which underpinned more difficult negotiations. For instance, when the commercial fishers volunteered to withdraw from fishing the inner fiords, recreational fishers volunteered to set stringent fishing rules for these more vulnerable inner areas.

Areas that were biologically diverse were identified as deserving particular care and were designated marine reserves. Other fragile areas were identified as having special qualities and became known as 'china shops'. Some of these areas were deemed to be vulnerable to damage from anchors and were designated 'no anchoring' areas. For the strategy to succeed in an isolated area such as Fiordland, it was very important that all stakeholders respected the restrictions in these areas, and this meant they needed to support both the process and the philosophy that underpinned it. The Guardians worked with agency staff and encouraged them to look for solutions that crossed the usual boundaries between the different agencies' roles. This approach was new and refreshing, and fundamental to successful integrated management.

The 2005 Act

By 2003, the Guardians recognised the need for a way to protect the integrity of the whole package so that the balance of gifts and gains would not be compromised. The Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 established the Fiordland Marine Guardians, and was the first legislation of its kind for the marine environment in New Zealand. It cements in place a statutory role for a community group to continue to provide oversight and direction.

¹ The management agencies are the Ministry for the Environment, the Ministry of Agriculture and Forestry, the Department of Conservation, Environment Southland and the Ministry of Fisheries.

Achievements in 2010/11

Monitoring projects during 2010/11

The Guardians were involved in and received reports on the monitoring projects reported below. Each is discussed in further detail in Appendix 3: Agency reports.

Biological monitoring survey

A report on the biological monitoring project carried out by the Otago University was received. This survey repeated one carried out three years earlier and revealed little change, reinforcing the Guardian's view that the Fjordland Marine Area (FMA) environment was not degraded when the Act came into force.

As well as considering the survey's results, the Guardians were also involved in a review of the FMA monitoring plan, which is required under the Act. This review looked at work carried out over the past five years, identified opportunities and set new priorities, and is further discussed in the next section: 'Advice and recommendations'.

Deep reef survey

The final report by NIWA on the deep reef survey was presented to the Guardians and management agencies. This survey used a specialised remote-operated vehicle with video recording equipment to depths of 140 metres, and baited underwater video equipment to a depth of 200 metres. The results, which revealed a range of new species and communities, has generated considerable interest within the scientific community. The next step in this type of work is to collect samples to aid in species identification.



Milford and Doubtful Sound blue cod monitoring

The Ministry of Fisheries (MFish) presented a summary of the results from its blue cod monitoring project in Milford and Doubtful Sounds. This report also identified limitations in the original project design, which affected the results. While the results were not clear, they did confirm what was already known or suspected regarding blue cod growth rates, and that very limited movement in or out of the fiords occurs.

The Guardians supported a new survey to run over two years. This is further discussed in: 'Advice and recommendations', and also in the press release: 'Fiordland blue cod: Smile – you're on baited-underwater-video', reproduced with permission from the National Institute of Water and Atmospheric Research (NIWA).

Bottlenose dolphin monitoring

A Department of Conservation (DOC) report on the Doubtful Sound bottlenose dolphin population said numbers were static, but the survival of 7 new calves (out of 8 born) over the 2010/11 summer is a good boost to the population. There was also a documented case and a couple of other reports this year that members of the Doubtful Sound population had been seen further south in Dagg Sound. It had previously been believed that the population was 'closed' and did not leave the Doubtful Sound complex.

The dolphin and other wildlife Code of Management (COM) continues to operate in Doubtful Sound and has been in place since February 2008. Generally there has been a good level of compliance from vessels signed-up to the COM, especially relating to their behaviour around the dolphins. Of some concern are the continued encroachments in to the dolphin protection zones set out in the COM. A review of the effectiveness of the Code of Management will be carried out in May 2012.

2010 Fiordland Marine Area user study

Lindis Consulting presented the final report on the 2010 user survey. This repeated a 2007 survey which established baseline data for later comparison.

Results were similar to the 2007 survey, with use patterns and users' perceptions showing little change. One point highlighted was the ongoing challenge of identifying recreational fishers and disseminating information to that group.



Advice and recommendations

During 2010/11, the Guardians provided advice and/or recommendations on the issues discussed below.

Cruise ship anchoring research

In 2010 the Guardians asked Environment Southland to undertake an assessment of areas suitable for anchoring by smaller-sized cruise ships. The recommendation was that these areas be identified to avoid anchors being dropped in sensitive sites where damage may occur to important seabed communities.

In May 2011, Environment Southland and the National Institute of Water and Atmospheric Research (NIWA), using side scan sonar equipment, carried out an assessment of particular areas currently used by cruise ships. Guardian, Mark Peychers, was involved in this process and provided advice based on his experience in these areas. Further work will be carried out over the next year.

Review of moorings and wharves for Deep Cove

Environment Southland began a review of the moorings and wharf structures in Deep Cove to assess whether more efficient use could be made of the available space.

The review was initiated by a particular application for a mooring on the northeast side of Deep Cove, near Helena Anchorage. While the Guardians opposed the specific application, they recognise the need for safe moorings and support proposals to allow for more vessels to anchor, as long as this does not encroach into the Helena Anchorage. In its submission on the application, the Guardians therefore recommended the Council review the effectiveness of how space is currently used.

The mooring application for the northeast side of Deep Cove was subsequently declined by the Environment Southland's Consents Committee. The Guardians recognise the applicant incurred substantial costs in making the application and suggest that this could be taken into account by the Council during any allocation of new space.

Mandatory amateur charter vessel operator registration and reporting

The Guardians supported the MFish proposal to introduce mandatory registration and reporting for amateur charter vessel operations in the FMA. The amount of data relating to catch and effort of recreational fishers is very limited and potentially inhibits robust decision-making, particularly in areas of the FMA where only recreational fishing is allowed.



CHRISTCHURCH BOAT SHOW 2010



CRUISE SHIP DOUBTFUL SOUND (DOC)

Vessel monitoring

Preventing marine pests from becoming established within the FMA, including *Undaria* (*Undaria pinnatifida*), remains a priority for the Guardians.

Throughout the year, the Ministry of Agriculture and Forestry (MAF) provided reports on implementation of the biosecurity operational plan. This includes monitoring moored vessels in Bluff Harbour and Stewart Island that are known to travel to the FMA and identifying those found with *Undaria* on their hulls.

The Guardians encouraged more interaction and information-sharing between MAF and Environment Southland, and identified opportunities to do so, to ensure vessel owners were made aware of their obligations under the Regional Pest Management Strategy and the conditions on their resource consents.

The Guardians also considered Environment Southland's trial of a Vessel Intention Register to identify vessels and their operators so that biosecurity information can be passed on to them. The review of the rules showed varying levels of support for the Register. This and other options will be looked at.

Application for the commercial harvest of *Undaria*

Environment Southland received an application to allow the harvest of *Undaria* from Bluff Harbour and Stewart Island, and forwarded it to the Guardians. Allowing the application would require an exemption to the Regional Pest Management Strategy.

The Guardians' main concern was whether there would be increased risk of the transport of spores or plants through this operation. The application included measures to avoid this, which the Guardians accepted. The application was therefore supported on the condition that harvesting was restricted to Bluff Harbour, was conditional, and was subject to review.

Consideration of World Heritage status listing

The Guardians were asked to consider a potential application for World Heritage status for the waters and seabed of the fiords of Fiordland (Te Moana o Atawhenua), as an addition to Te Wāhipounamu – South West New Zealand World Heritage Area. This was suggested as a means of further raising the profile of the FMA which, among other things, might encourage research at greater depths than has been possible to date.

It was recognised that support from a wide range of agencies and organisations would be required. The Guardians supported the proposal being included as part of DOC's consultation on its revision of the Southland Conservation Management Strategy.

Doubtful and Milford Sounds blue cod research

The Guardians supported MFish's design of a new survey project for the Doubtful and Milford Sound blue cod fisheries. It will employ new techniques, including the use of baited underwater video equipment. (See also the NIWA press release later in this report).

The Guardians acknowledge the ongoing closure will impact on adjacent areas that are open to fishing by shifting fishing effort. However, reopening the fisheries at this time would compromise the results.

Monitoring projects

The Guardians provided advice during the review of the FMA monitoring plan. The main future priorities include:

- marine pest monitoring and surveillance
- more focused biodiversity work – including higher resolution studies in several marine reserves
- investigation into the current positioning of habitat lines
- investigation into the feasibility of further deep reef surveys
- a repeat of historical research carried out in Milford Sound
- the identification of more exposed outer coast locations for long-term biological monitoring sites.

Resource consents

The Guardians were asked to comment on a number of resource consent applications during the year. These fell into three categories:

- non-notified, where the Guardians was identified as an affected party
- notified, where the Guardians felt that conditions imposed by current legislation, such as the Southland Coastal Plan, addressed all concerns
- notified, where the Guardians provided a submission.

Four resource consent applications of interest are outlined below.

Environment Southland

In October 2010, an application was made by Environment Southland for resource consent to discharge agents into coastal waters to control marine pests in the FMA. This was for work to eliminate *Undaria* from Sunday Cove. Areas of the seafloor were treated with chlorine and covered. The Guardians supported this application.

Meridian Energy Limited

During 2010, Meridian Energy Limited was granted consent to increase the amount of fresh water drawn from the Waiau catchment to generate electricity through the Manapouri Power Station. This meant an increase in the discharge of fresh water into Deep Cove, Doubtful Sound. Associated consents relating to water levels in the Waiau River and lakes Te Anau and Manapouri were also granted. One of the conditions of the consent was that an additional environmental monitoring programme for Deep Cove and Doubtful Sound be established.

In October 2010, representatives from Meridian Energy Limited presented the monitoring programme to the Guardians and management agencies. Although recognised as the formal group for consultation, the Guardians sought clarification that DOC would also be consulted, and that the Waiau Working Party would be advised.

In April 2011, the Cawthron institute on behalf of Meridian Energy Limited, applied for a permit to collect soft sediment samples from within the Kutu Parera (Gaer Arm) Marine Reserve as part of the monitoring programme.

Periodic reports with results from the monitoring programme will be presented to the Guardians.

Milford Sound Development Authority

In 2010, the Milford Sound Development Authority applied for consent to construct a breakwater in Freshwater Basin next to the tourist boat terminal, and to deepen the immediate area by dredging the seabed. Earlier, in 2007, the Authority was granted consent to build a breakwater 50 metres south of the existing structure but this work was never carried out. The new application sought to offset the proposed breakwater by a further 10 metres.

The Guardians raised concerns about possible environmental effects, particularly cumulative effects and the impact of expected habitat loss on sensitive species of tube anemones (*Cerianthus*) that exist in the area. Concern was also raised about the proposed dredge spoil disposal site, as this was adjacent to the southern boundary of the Piopiotahi (Milford Sound) Marine Reserve. The seafloor in this area slopes towards the marine reserve, raising the possibility of dredge spoil spilling down into the reserve. Mitigation measures to avoid this occurring were proposed.

A monitoring programme to measure impacts on the environment and at the dredge spoil disposal site was agreed to by the Guardians and it will receive periodic reports.

Renewal of existing consents for various trips

Environment Southland received a number of applications to renew consents that allow for a prescribed number of trips within prescribed areas and of prescribed durations.

In popular areas, including Doubtful and Milford Sounds, the number of trips allowed for some activities is fully allocated. However, the allocation is under-used. Because this prevents any further applications for similar activities, the Guardians asked whether Environment Southland would consider reducing a consent holder's current allocation if the Council deemed it was not being used efficiently.

Undaria in Sunday Cove: Progress on the local elimination project

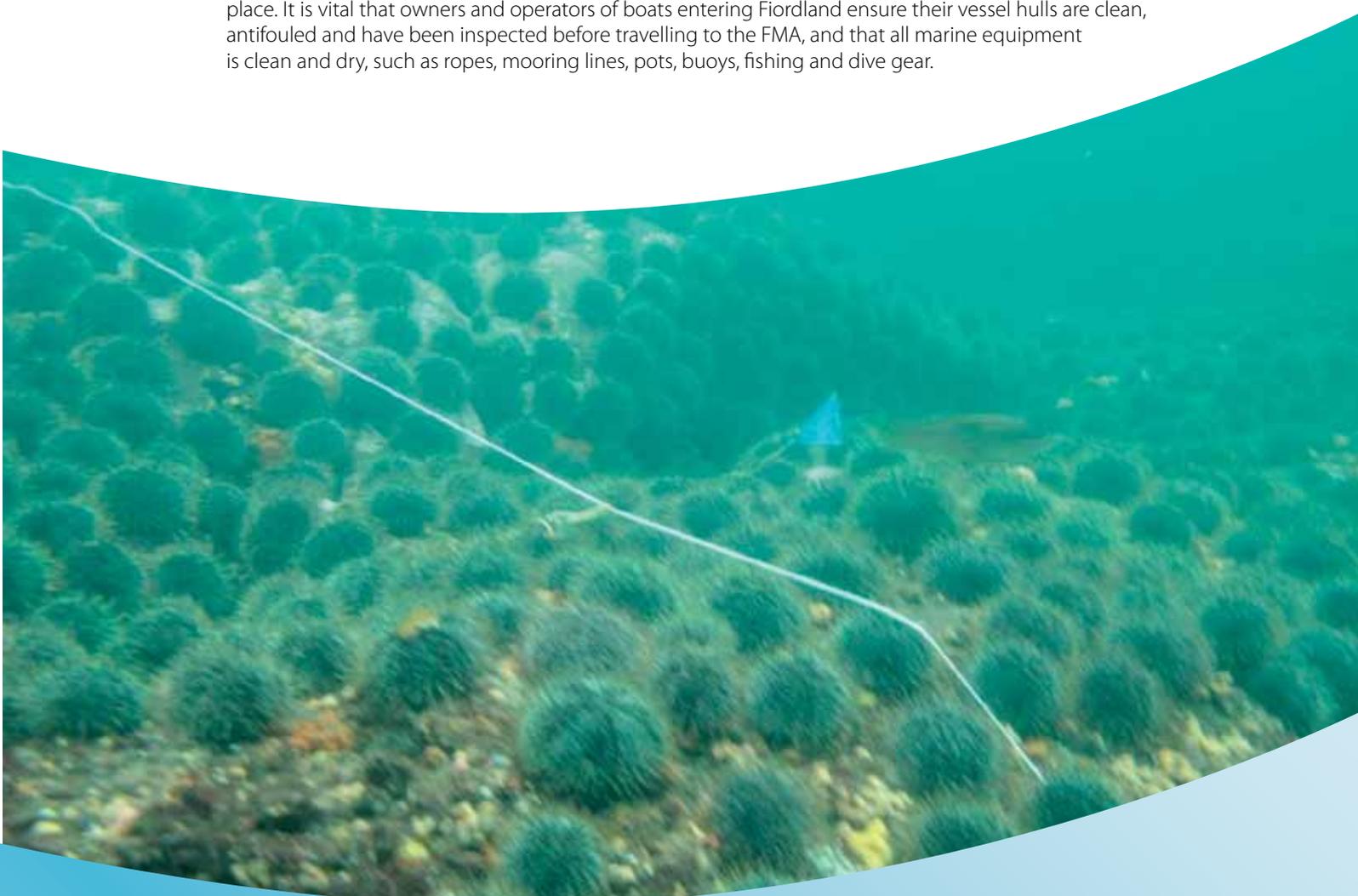
Since a single specimen of the invasive seaweed *Undaria* was found in Sunday Cove 16 months ago (April 2010), 995 *Undaria* plants have been removed during 12 subsequent surveys. Until recently there had been a steady reduction in the numbers found since the initial incursion. The discovery of six mature plants in February and March 2011 resulted in a new wave of smaller plantlets, and temporarily reversed the declining trend in *Undaria* abundance.

To combat the risk of the pest seaweed spreading further, the response team has introduced kina to the infected areas of Sunday Cove, as a biocontrol agent. Earlier in the year, small-scale trials which involved seeding kina onto *Undaria*-infected sites demonstrated that these herbivores will browse heavily on macroalgae, including *Undaria*.

A MFish special permit to conduct this operation received approval, thanks to the assistance of the Guardians, and other stakeholders and agencies (especially MFish). Subsequently 30,000–35,000 kina were transferred to sites where mature plants had been found.

This new approach complements the existing eradication programme by reducing the occurrence of new *Undaria* plants. However, repeat monitoring every 4–6 weeks remains necessary to ensure no isolated plants escape detection.

The joint-agency response is a time, money and resource-hungry process, and is not guaranteed to be successful. This drives home the importance of preventing marine pests from entering Fiordland in the first place. It is vital that owners and operators of boats entering Fiordland ensure their vessel hulls are clean, antifouled and have been inspected before travelling to the FMA, and that all marine equipment is clean and dry, such as ropes, mooring lines, pots, buoys, fishing and dive gear.



Fiordland blue cod: “Smile – you’re on baited-underwater-video”

Printed with the permission of NIWA.

NIWA Media Release, 4 April 2011

NIWA marine scientists will use baited-underwater-video (BUV) to assess blue cod stocks in Fiordland this week. It's the first time this unique way of monitoring fish stocks has been used in the fiords.

Blue cod are one of the most sought-after recreational fish in the south of New Zealand. Whether the abundance of blue cod within the fiords is influenced by environmental factors or has been affected by fishing is not known.

In 2005, the Minister of Fisheries, on the recommendation of the Fiordland Marine Guardians, closed the two most popular recreational blue cod fishing areas (Milford and Doubtful Sounds). Initially the closure was for two years. The ban was extended for another two years in 2007 and has subsequently been extended further.

The ban allowed the Ministry of Fisheries and Fiordland Marine Guardians to establish an ongoing research project in 2006 to monitor blue cod abundance in the fiords. Most of this monitoring has been done by hook-and-line angling catches and tagging fish.

This year, for the first time, digital cameras housed in a waterproof casing and baited with paua guts will be remotely deployed to depths up to 80 metres to video the numbers of blue cod in the fiords. The numbers of fish caught on camera can then be used to estimate relative blue cod stock abundance. Lengths of the blue cod will also be measured, using specialised image analysis software that can accurately pinpoint the size of the fish to within 20 millimetres.



A SEVEN-GILL SHARK IS CAUGHT ON BUV AS IT CIRCLES THE BAIT STATION, WHICH IS FITTED TO A FRAME UNDERNEATH THE CAMERA.



BLUE COD ARE FILMED ON BAILED-UNDERWATER-VIDEO (BUV) IN DUSKY SOUND, FIORDLAND

NIWA scientist Dr Trevor Willis says nearby marine reserves will also be surveyed using the BUV to see how blue cod populations that have been totally protected from fishing since 1993 compare with those where the fishing ban has been in place for only five years.

"This will provide a critical baseline to estimate the impacts of fishing. This assessment hasn't been done before so we can't be sure whether improvements in fish numbers seen in the protected areas were actually a result of not being fished or reflect larger population-scale trends."

Malcolm Lawson, Chair of the Fiordland Marine Guardians, says that it has always been the intention of the Guardians to establish a management plan for blue cod fishing in these areas but to do so good information is required.

"Fishing has been one of the main activities in Fiordland ever since people have been here. The research that has been carried out while the areas have been closed has given us some information and the BUV monitoring will provide even more. We are currently in the process of consulting the public on the rules relating to the Fiordland Marine Area, including future blue cod fishing in Doubtful and Milford Sounds, and seeking comments on any rules such as catch limits and fishing method restrictions that need to be applied."

The survey will also assess the movement of blue cod within the fiords by recapturing previously tagged fish using cod pots.

A local charter boat, the Pembroke, will be used in the survey which starts on Wednesday and runs for 10 days.

Other information about this item:

Fast facts about blue cod:

- Scientific name: *Parapercis colias*.
- The Maori name for blue cod is rawaru.
- Blue cod are only found in New Zealand, particularly in southern waters.
- They eat a wide range of small fish and marine animals, including crabs, shrimps and other crustaceans.
- They can live for 18 to 20 years, grow up to 60 centimetres in length and can weigh up to 4 kilograms.
- In Southland, male blue cod take around seven years and females around nine years to reach the minimum legal catch length of 33 centimetres.
- Blue cod are actually brown as juveniles. At around 20 centimetres in length they turn a mottled grey colour. Older males and females are coloured blue, which gives them their name.
- Blue cod can change sex from female to male.

More about Fiordland and blue cod:

- Fiordland is New Zealand's largest marine managed area - 882,000 hectares.
- The marine area is managed under the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 by the Fiordland Marine Guardians.
- Fiordland has 10 marine reserves. In the reserves, all marine life is totally protected and all fishing, both recreational and commercial, is prohibited.
- Since 2005, Milford (Piopiotahi) and Doubtful (Patea) Sounds have also been temporarily closed to blue cod fishing. The ban was initially for two years, but this was extended for a further two years in 2007. The ban is now being enforced indefinitely.

For more information about Fiordland and the Fiordland Marine Guardians go to: www.fmg.org.nz

Ministerial Review of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005

Background to the review

The Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 (the Act) recognises the local, national and international importance of the marine environment in Fiordland. The Act sets out the management model for the Fiordland (Te Moana o Atawhenua) Marine Area (FMA) to ensure its unique marine environment, distinctive biological diversity and outstanding landscape and cultural heritage are maintained.

A review into the effectiveness of the Act and management of the FMA was written into the legislation, to be completed after five years. On behalf of the Minister for the Environment, the Ministry for the Environment (MfE) commissioned a review between April and October 2010.

Findings

The review found that the integrated management model for the FMA has been highly effective and no significant changes are proposed to the current management model.

The Fiordland Marine Guardians has been effective in fulfilling its mandated functions and has achieved good community understanding, awareness and support for its role. The Guardians has strong positive relationships with the management agencies and with Ministers.

One component of the review was evaluating the unique marine management measures put in place under the Act (ie, fisheries regulations, establishment of marine reserves, and changes to the Southland Regional Coastal Plan). As only five years have passed since the FMA was established, insufficient data was available to reach a conclusion on the effectiveness of these measures.

The review identified little in the way of shortcomings, with recommendations focusing on strategic planning to help coordinate work programmes, succession planning to meet future membership needs, and wider dissemination of the findings of research undertaken in the FMA.



DEEP COVE FROM WILMOT PASS



ANEMONE

Fiordland Marine Guardians review of the rules governing Fiordland

As signalled in the Guardians' 2009/10 annual report, with the Act in place for five years, the Guardians undertook a review of the rules governing the FMA.

Consultation was carried out, including the release of a discussion document and public meetings held in Invercargill and Te Anau.

The review was based on the eight objectives included in the original Fiordland Marine Conservation Strategy, which are:

Information:

"Take a pro-active role in identifying and advocating research and information needs to obtain the necessary information for advancing the Guardians' objectives."

Fisheries:

"Ensure the sustainable utilisation of the finite fisheries resources, having regard to the special nature of the fiord environment."

"Prevent uncontrolled expansion of effort/harvest by all groups."

"Ensure that the rights of tāngata whenua, recreational, charter operators, commercial and other user groups are identified and recognised and that these groups are involved in fisheries management decisions including access to the fisheries resource."

"Support overarching fisheries management frameworks."

"Fit management of fisheries to an appropriate spatial scale."

"Encourage harvesting to take place at the entrances and outer coast."

"Adopt a cautious and responsible approach to proposals for new developments, including fisheries developments."

Values of special significance:

"Ensure the ongoing integrity of areas, habitats and communities of special significance within Fiordland's marine environment."

Risks to the marine environment:

"Avoid where possible, remedy, or mitigate the adverse impacts of human activities on fisheries and the marine environment."

Expressing kaitiakitanga:

"That kaitiakitanga (stewardship) be appropriately expressed for Fiordland's fisheries and marine environment."

Implementing the strategy:

"The negotiated package of measures contained in the strategy be implemented as a whole without compromising underlying principles and balances."

Compliance:

"Encourage voluntary compliance with the rules and reinforce the view that non-compliance is unacceptable behaviour."

Monitoring the performance of the strategy:

"Evaluate whether the package of management measures is achieving the objects of the integrated management philosophy."

Final recommendations for each of the objectives are currently being developed using:

- feedback from the public meetings
- submissions from the discussion document
- Doubtful and Milford Sounds blue cod monitoring results
- the Fiordland Marine Area User Study
- the 2010 Ministerial review
- discussions at joint Guardians/agency meetings.

Other activities undertaken by the Guardians in 2010/11

Meetings

Five meetings involving Guardians and management agencies were held during the year with a further two subcommittee meetings held. Further details are in Appendix 2.

Newsletters

Three newsletters were produced during the year. They remain popular and are now available electronically and in colour. Print versions continue to be black and white. Distribution has increased from approximately 425 interested parties in June 2010 to 467 in June 2011, of which 45 receive the newsletter electronically.

Please email info@fmg.org.nz if you still receive the newsletter by post, but would prefer to receive an electronic colour version.

Advertising

During 2010 the Guardians agreed to an advertisement in the *Boaties Book*, which has a copy run of 100,000 and is available throughout New Zealand to the wider boating community. It was seen as another opportunity and avenue to promote the FMA, the rules and the User Guide.

A repeat advertisement was agreed to for the 2011 version.

Visit by Minister of Fisheries

In August 2010 the Guardians hosted the Minister of Fisheries, the Hon Phil Heatley aboard the GV Southern Winds. The Minister was a member of the Fisheries and Other Sea-related Legislation Select Committee that considered the Fiordland (Te Moana o Atawhenua) Marine Management Bill that was passed by an Act of Parliament in 2005. He has maintained an interest in the development and functions of the integrated management model established by the Act since then. His visit provided the opportunity for the Guardians and agencies to update him on progress since the introduction of the Act.

At the end of the trip the Minister asked each person individually for the main message that they would like him to take away. This demonstrated the level of his interest and was much appreciated.

Meeting with Minister for the Environment and Senior Agency Managers

In March 2011 the Guardians took up an invitation from the Minister for the Environment, the Hon Dr Nick Smith to meet with him at Parliament Buildings.

The main reason for the meeting was to discuss the findings of the Ministerial review of the effectiveness of the management of the FMA (*see Ministerial Review*).

The Minister also took the opportunity to discuss the FMA management approach as a successful example that could be used to promote collaborative management in communities in other parts of the country.

Membership of the Guardians including reappointment and succession planning was also discussed.

The trip to Wellington also provided an opportunity to meet with senior managers from the agencies. These meetings are seen as an important way of reiterating the importance of the roles that agency staff carry out in the FMA and also the role of the senior managers in maintaining the current level of support for them.

Manapouri/Doubtful Sound User Group

In October 2010 the FMG was approached by this user group. Jerry Excell attended a meeting on behalf of Guardians.

Presentation to IUCN group

Members of the Guardians and DOC Marine Ranger, Kath Blakemore, presented to members of the International Union for the Conservation of Nature (IUCN) Commission on Environmental, Economic and Social Policy group. This group comprises an interdisciplinary global network of professionals and is involved in assisting communities and indigenous peoples in establishing and running conservation projects.

The group was most interested in the relationship between the Guardians and the management agencies and the autonomy that the Guardians had in decision-making, without Government influence.

User guide

Sales of *Beneath the Reflections – A User's Guide to the Fiordland (Te Moana o Atawhenua) Marine Area* have continued to be steady throughout the year. Retail bookshops are also now stocking the guide and it has become a 'must have' for many people venturing to Fiordland.

More than 500 copies have been sold or distributed since the User Guide was launched in October 2008.

Boat Show displays

Guardian, Alan Key, and Fishery Officer, Stephen Logie, from MFish, attended the Christchurch Boat Show where they set up a display on the FMA. A large map with photographs of various locations drew a lot of attention from people who knew the area. More than 30 people registered an interest in being included on the Guardians' contact database. More than 8000 people attended the show.

Guardians also set up and staffed a display with agency staff at the 'Go Outdoor Otago' show in Dunedin during October 2010. There was considerable interest in the work of the Guardians and in the FMA. During the weekend approximately 6000 people attended the show, with 24 User Guides sold.

The interest shown at these shows illustrates the geographic spread of people who have an interest in Fiordland and the FMA.



Looking ahead – the next 12 months

DVD distribution

Big Screen Advertising has almost finished producing a DVD for the Guardians to use at boat shows and during presentations. The DVD will describe and promote the history and work of the Guardians and management agencies in the FMA. The next 12 months will focus on distributing the DVD, including considering if the material can be made available on the Guardians' website (www.fmg.org.nz).

Website design

Over the next 12 months the Guardians' website will be revised to make it easier to find information. Additionally, the content of the website will be revised and updated. This recognises that web-based technology is now one of the most important ways to provide information and it is therefore necessary to improve the site to encourage more visitors.

Marine reserve markers

Throughout the year there have been ongoing discussions on the design and erection of pou pou (carved poles) to mark the boundaries of the more remote marine reserves outside of Milford and Doubtful Sounds. The design of these is recognised to be of spiritual importance to Ngāi Tahu. The design and funding to support the cost of placing the 14 pou pou will be finalised during 2011/12. The actual erection will depend on the timing of the carving and the availability of resources to carry out the work.

Visit by Minister

Following the success of previous visits to the FMA by Ministers of the management agencies involved, it is intended to invite either the Minister of Conservation or Biosecurity to visit the FMA during 2011/12. Invitations will be sent following the general election, once Ministerial portfolios have been allocated.

Final recommendations from rules review

A range of recommendations stemming from the Guardians-led review of the rules governing the FMA will be provided to the management agencies. Implementation of the recommendations will depend on available resources.

Points made in submissions will also be used to guide decision-making in the development of future management priorities.

Dolphin research forum

The formation of a dolphin research forum has been mooted in response to Meridian Energy Limited's consent conditions, which require the establishment of a multi-party monitoring and research project into the Doubtful Sound bottlenose dolphin population. DOC would like the Guardians to be a part of the forum, which would include external scientists, members of the Southland Conservation Board and others. It is envisaged that the forum would meet once a year to discuss research needs. The first meeting is anticipated during 2011/12.

Appendix 1: The Act – its purpose and function

The Fiordland (Te Moana o Atawhenua) Marine Management Act 2005

Section 3: Purpose of the Act

In recognition of the Fiordland (Te Moana o Atawhenua) Marine Area's local, national, and international importance, unique marine environment, distinctive biological diversity, and outstanding landscape and cultural heritage, this Act –

- (a) establishes the Fiordland (Te Moana o Atawhenua) Marine Area and 8 marine reserves in that area;
- (b) implements measures to assist in the preservation; protection, and sustainable management of the marine environment and biological diversity of the Fiordland (Te Moana o Atawhenua) Marine Area;
- (c) establishes the Fiordland Marine Guardians to provide advice on fisheries management, biosecurity, sustainable management, and marine preservation and protection;
- (d) facilitates and promotes cooperation between the Guardians and management agencies, to assist in achieving the integrated management of the Fiordland (Te Moana o Atawhenua) Marine Area;
- (e) acknowledges the importance of kaitiakitanga.

Section 13: Functions of Guardians

(1) The functions of the Guardians are –

- (a) to advise and make recommendations to management agencies and Ministers who exercise functions under the enactments listed in Schedule 13, to achieve the purpose of this Act, including, but not limited to, –
 - (i) advice and recommendations on the effectiveness of the management measures in the Fiordland (Te Moana o Atawhenua) Marine Area;
 - (ii) advice and recommendations on activities occurring outside of the Fiordland (Te Moana o Atawhenua) Marine Area if those activities impact, or are likely to impact, on the Fiordland (Te Moana o Atawhenua) Marine Area;
 - (iii) advice and recommendations on likely threats to the Fiordland (Te Moana o Atawhenua) Marine Area.
- (b) to facilitate and promote the integrated management of the Fiordland (Te Moana o Atawhenua) Marine Area;
- (c) to obtain, share, and monitor information on the state of the Fiordland (Te Moana o Atawhenua) Marine Area;
- (d) to assist management agencies to –
 - (i) prepare and disseminate information about the Fiordland (Te Moana o Atawhenua) Marine Area, including educational information;
 - (ii) monitor the state of the marine environment and biological diversity in the Fiordland (Te Moana o Atawhenua) Marine Area;
 - (iii) plan for the enforcement of, and compliance with, the management of the Fiordland (Te Moana o Atawhenua) Marine Area.
- (e) to conduct any reviews instituted under section 25 that they –
 - (i) are invited by the Minister to conduct; and
 - (i) agree to conduct.
- (f) to perform any other functions given to them under this or any other Act.

(2) Advice and recommendations under subsection (1)(a) may be given on the Guardians' own initiative or at the request of –

- (a) a management agency; or
- (b) the Minister; or
- (c) the Minister for Biosecurity; or
- (d) the Minister of Fisheries; or
- (e) the Minister of Conservation.

Appendix 2: Meetings – dates and times

In accordance with Section 20 of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, details of meetings held during the year are as follows:

2010

5 August	10.00am – 4.05pm
17 September	10.00am – 3.00pm – Monitoring subcommittee
7 October	10.00am – 4.30pm
10 December	10.00am – 4.35pm

2011

8 February	10.00am – 4.25pm
18 April	10.00am – 3.00pm – Biosecurity subcommittee
19 April	10.00am – 4.15pm



Appendix 3: Agency reports



MINISTRY FOR THE ENVIRONMENT

Role

The Ministry for the Environment (the Ministry) administers the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 and is responsible for coordinating the Fiordland (Te Moana o Atawhenua) Marine Area Communications Plan. The Ministry provides administrative and secretariat support to the Guardians, and ensures the Minister's obligations under the Act are met.

Achievements

There were three key achievements for the Ministry this year, described below.

Supporting completion of the Ministerial review of the Act

A Ministerial review of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 was completed in September 2010 on behalf of the Minister for the Environment. As reported elsewhere in this report, the review found the integrated management model for the Area has been highly effective. The Minister was happy with the review's findings and does not propose any significant changes to the management model.

Hosting the Guardians' website

In January 2011, hosting the Guardians website transferred from Environment Southland to the Ministry, Environment Southland had changed its website administration provider, and consequently found it was unable to maintain the Guardians' website.

Users of the website will not notice any difference. However, the change means it is now easier to keep information on the website up to date. Thanks to Environment Southland for the work it has put into the website to date.

Guardians DVD

Over the past six months, the Ministry has been helping the Guardians produce an educational DVD for use at boat shows and as part of presentations. The intention is to make the DVD available via the Guardians' website, and this will be announced in the Guardians' newsletter.

Looking ahead

The Ministerial review identified a need for the Guardians to consider strategic planning to help coordinate work programmes and agency budgets, develop succession planning to meet future membership needs, and achieve wider dissemination of the findings of research undertaken in the FMA. The Ministry will work with the Guardians to address these issues in the coming year.

Updating the structure and content of the Guardians' website will be a priority for the Ministry in the next 12 months. This will allow research reports to be easily added, and hopefully enable chapters of the DVD to be available through the website.

MINISTRY OF FISHERIES

Role

The Ministry of Fisheries (MFish) goal is New Zealanders maximising benefits from the use of fisheries within environmental limits. To help ensure this goal is met in the FMA, MFish staff from field operations, fisheries management and science continue to work collaboratively as part of the Guardians/management agencies team.

Achievements

Following on from last year, MFish worked with the Guardians and other agencies on the Ministerial review, as well as the Guardians own review of current management settings. This provided a great opportunity for the public to provide feedback about how well they think the current rules are working.

MFish also worked with the Guardians to improve information about the recreational blue cod fisheries in Milford and Doubtful Sounds. Due to concerns with the design of previous research, this year has seen a change to monitoring blue cod abundance using baited underwater video. This is described earlier in this report. The footage is still being analysed by the provider, but early indications are that this new method will provide better information to help manage blue cod populations.

From the 2005 FMA inception, MFish has been the lead agency responsible for delivering an integrated compliance plan and enforcement programmes, in collaboration with DOC, Environment Southland and MAF. Sharing information and developing strategies and initiatives to mitigate emerging issues has allowed for more efficient use of limited enforcement resources and fostered a closer working relationship between the agencies.

A key component to encouraging voluntary compliance is effective education with targeted information disseminated to regular, infrequent and intending participants. In July and October 2010, MFish staff and Guardians promoted Fiordland's fishing rules at the Christchurch Boat Show and the Go Outdoor Otago (Boat and Leisure Show). Both Canterbury and Otago fishers feature prominently in Fiordland user demographics, particularly in charter boat parties. Participation in both events was extremely worthwhile, with increased User Guide sales to both regular and intending users, and increased general awareness among a much wider audience.

In early April 2011, during the peak autumn hunting and fishing visitation period, fishery officers conducted a 5-day patrol of Fiordland onboard HMNZS Taupo. One of four new 55-metre length inshore patrol vessels (IPVs), the TAUPO has a ship's complement of around 20 naval crew and capacity to host several government agency personnel, including Customs, Police, MFish and DOC. This was the first dedicated occasion a new IPV had been specifically tasked to patrol the fiords, with boarding operations efficiently performed using the new J3 rigid hull inflatable boats.

In late April, compliance officers from DOC, MFish and Environment Southland, and a MAF marine pest advisor, took part in another successful joint-agency patrol on board the DOC vessel Southern Winds. Recreational and commercial user behaviour was monitored over a 4-day period. Interactions revealed that acceptance of the marine management rules is highest amongst local operators. However, officers still occasionally came across visiting boaties from outside the region, who were either vague about or not conversant with the recreational fishing rules or the extent and locations of marine reserves, and were unaware of biosecurity risks and mitigation measures.

Together with inspections throughout the year, the two agency sea-patrols during the peak autumn period confirmed the improving trend of high levels of voluntary compliance by most recreational and commercial users. The more recent absence of any serious offending and the continuing improvement in fisher behaviour is most pleasing, reinforcing the view that the locally-developed management rules are well accepted and supported by users.

Since 1 November 2010, to improve information about recreational fishing, it has been mandatory under the Amateur Fishing Regulations for all amateur fishing charter vessel operators to be annually registered, keep daily records and report monthly on all amateur fishing trip activity. Initially, after a slow uptake, 10 charter vessel operators have now been registered and issued with log books to report their activity and catch on a monthly basis. These operators are either Fiordland-based or seasonally work in the area.

Looking ahead

As of 1 July 2011, MFish merged with the Ministry of Agriculture and Forestry. While it will be some time before it is known whether there will be changes in how the new agency interacts with the Guardians, no significant impacts on the work of the Guardians or management of the FMA are expected.

The 2011 Guardians' review of the effectiveness of FMA management provides it with an opportunity to recommend refinements to existing fisheries management rules for Fiordland, along with providing useful feedback and suggestions to improve compliance.



Department of Conservation
Te Papa Atawhai

DEPARTMENT OF CONSERVATION

Role

DOC is responsible for leading the implementation of a plan to monitor the state of the marine environment and biological diversity in the FMA. This plan is implemented with involvement and collaboration between all the key agencies managing the FMA, and direct input from the Fiordland Marine Guardians. DOC is also responsible for managing Fiordland's 10 marine reserves and the marine mammal regulations throughout the FMA.

Achievements

The largest part of DOC's work this year has been the joint agency response to the incursion of the pest seaweed *Undaria* in Sunday Cove, Breaksea Sound. A joint agency agreement agreed in principle between the agencies has enabled DOC, Environment Southland and MAF to work collaboratively on the incursion. This enabled the response team to call on expertise from the three agencies to help eradicate *Undaria* from Fiordland. The Guardians' integrated management model has probably made this joint agency response possible, due to higher levels of communication between the agencies. DOC remains committed to eradicating *Undaria* from Fiordland.

The early part of 2010/11 also saw several project documents finalised that will help guide the overall future management of Fiordland.

In September 2010, the final version of the Fiordland (Te Moana o Atawhenua) Marine Area User Study 2010 was published. The study was conducted by Lindis Consulting and managed by Dr Kay Booth and Dr Stephen Espiner. The report was a follow up from the initial User Study produced in 2007, and provides another snapshot of how the users of the FMA feel about the area, the Guardians and the management of the FMA. There was some very positive feedback about the Guardians.

The second report finished in 2010 was a biological monitoring survey of the FMA carried out by DOC and Otago University. This built on baseline reports from surveys in 2006 and 2007, and gave further information about the biological state of the FMA and whether it has changed over time. The survey focused on reef fish and rock lobster numbers, as well as other key species, such as black coral, kina and kelp communities.

Other significant work carried out by DOC in 2010/11 was the continuation of the bottlenose dolphin population monitoring in Doubtful/Patea Sound and Dusky Sound. This monitoring is carried out jointly with Otago University. Both areas had a good breeding season in the summer of 2010/11, which is good news, especially for the Doubtful Sound pod. This monitoring work is ongoing.

DOC has also continued to advocate for the guide book *Beneath the Reflections: A User's Guide to the Fiordland Marine Area*, with 84 books sold in 2010/11. It is sold in DOC's Te Anau Visitor Centre and copies are kept on the GV Southern Winds for any incidental sales while in the fiords. The Guide is now also stocked in a number of other stores around the country.

Looking ahead

The finalisation of the Guardians' review will help DOC ensure it is working in the right direction. DOC is totally committed to the Guardians' process and the integrated management model.

This coming year will see the continuation of attempts to eradicate *Undaria* from Sunday Cove and Fiordland.

DOC has commissioned some further analysis of data from an historical study in Milford/Piopirotahi Sound that looked at the biological diversity of a number of sites. This work should provide the opportunity to re-do some of the monitoring work and learn more about the biology of this fiord.

Several other studies are in the pipeline and yet to be confirmed.



MINISTRY OF AGRICULTURE AND FORESTRY

The Ministry of Agriculture and Forestry (MAF) is responsible for leading the development and implementation of a biosecurity plan that provides a framework for inter-agency activities to manage marine biosecurity threats to the FMA.

Achievements

Implementation of the risk management operational plan recommendations

In 2009/10, MAF contracted the Cawthron Institute to develop recommendations for a 5-year risk management Operational Plan for Fiordland. This set out recommended activities that MAF, other relevant agencies and the Guardians could undertake to achieve the goals identified in the Fiordland Marine Biosecurity Strategic Plan. MAF has worked with the other agencies and Guardians to implement planned biosecurity recommendations for the past year, including:

- **Vessel inspections for marine pests (ongoing since February 2010).** Moored vessels resident in Bluff and Stewart Island that are known to travel to the FMA are inspected monthly for the presence of marine pests. The antifoul paint condition and general marine growth on vessel hulls is also noted during these inspections. Any marine pests found are removed by divers at the time. When a marine pest is found vessel owners are informed and advised to ensure that their vessel is clean before travelling to the FMA. Young Fishing Ltd is contracted by MAF to undertake these inspections.
- **Joint-agency compliance and surveillance patrol.** As described elsewhere in this report, MAF took part in the joint-agency patrol that occurred in April 2011. This was an opportunity to talk to boaties in the FMA about the importance of marine biosecurity and raise awareness about the invasive seaweed *Undaria* in Sunday Cove.
- **Marine equipment treatment research.** Under contract to MAF, the Cawthron Institute has undertaken research to assess the effects of household cleaners for the treatment of marine pests. The following key messaging was developed to support the research outcomes:
 - remember to CHECK for and remove any living or dead marine growth from equipment prior to arriving in Fiordland and CLEAN canoes/kayaks, snorkelling/dive gear, fishing/boat equipment prior to arriving in Fiordland.

Specific cleaning guidance on how to clean marine gear and equipment (eg, fishing, diving gear, nets, pots, ropes, anchors) and non-moored craft (eg, kayaks) and other equipment prior to going to Fiordland, can be found at <http://www.biosecurity.govt.nz/files/pests/surv-mgmt/protect-fiordland-marine-biodiversity.pdf>

Joint-agency Marine Biosecurity Response Agreement

To support the risk management Operational Plan, MAF, DOC and Environment Southland worked together to develop a joint-agency Marine Biosecurity Response Agreement. The Agreement provides a framework for investigating and responding to new to Fiordland marine risk organisms and is based on the Biosecurity Response System. All agencies have agreed in principle to the draft Agreement.

Joint-agency response to *Undaria*

MAF is working with DOC and Environment Southland (lead agency) on attempts to locally eliminate the marine pest seaweed *Undaria* from Sunday Cove, Breaksea Sound. The agencies are using the principles of the Marine Biosecurity Response Agreement and the Biosecurity Response System. Further information on the response is in the section: 'Undaria in Sunday Cove: Progress on the local elimination project'.

Surveillance

As part of a national marine surveillance programme, MAF undertakes 6-monthly surveys in 11 locations around New Zealand (including the Port of Bluff and a range of high-risk ports and marinas) for 6 specific marine 'unwanted organisms' declared under the Biosecurity Act 1993 and also other target organisms. This port surveillance work has benefits for the Fiordland programme, such as detecting new-emerging invasive species. No new marine pests have been found in the Port of Bluff over the past year.

Border requirements

MAF has done considerable work over the past year on developing a draft import health standard for vessel biofouling. This draft import health standard has been consulted with stakeholders. Work is now under way to finalise this document and work with stakeholders to ensure they are familiar with the new requirements before its implementation. In the future, any vessel arriving into New Zealand must be clean. This border work has benefits for Fiordland as vessels may arrive directly into Fiordland's waters from overseas, as well as travel to Fiordland once in New Zealand. In both instances, it is imperative that vessels are entering Fiordland's water in a clean condition.

Looking ahead

Because the primary focus for protecting the FMA is on prevention activities and pathway management, a staged implementation of the long-term risk management operational plan will be a priority for the next year. To achieve the objective of maintaining Fiordland's unique biodiversity, all users of the marine environment need to understand their roles and responsibilities in its protection.

MAF will continue to work with DOC and Environment Southland on the current response to *Undaria* in Sunday Cove.

Further information on Fiordland marine biosecurity can be found on the MAF website at: <http://www.biosecurity.govt.nz/pests/surv-mgmt/mgmt-partnerships/fiordland>



DIVERS ON THE CV JEWEL



HMNZS TAUPO



ENVIRONMENT SOUTHLAND

Achievements

Biosecurity

Environment Southland Biosecurity staff continue to liaise with the Guardians, as well as with management agencies, to develop collaborative approaches to deal with the risks posed by the incursion of marine pests into Fiordland.

Following the discovery of *Undaria* in Sunday Cove, Breaksea Sound, in April 2010, Environment Southland lead a joint biosecurity response, with DOC and MAF, which included a 5-day survey in July 2010.

The joint-agency response has continued successfully throughout the last year. Checking for marine pests requires constant vigilance as it is important to stop them from entering Fiordland.

The Vessels Intention Register is up and running on the Environment Southland website at <http://www.es.govt.nz/vir>, and has been advertised in the 2011 Boaties Book. Registering vessels that intend to visit Fiordland will help monitor boat movements, as well as checking for biosecurity compliance. It is not compulsory, and will continue to be monitored to determine if it is an effective tool to reduce the risk of transferring new pests into the Fiordland Marine Area.

Environmental compliance

A number of consents were granted to DOC in 2010/11 to allow for redevelopment of the flood-prone Cleddau Workers' Village in Milford Sound. Consents ranged from rock and gravel extraction permits to construct flood protection and raise the height of the village platform, through to discharges of stormwater associated with the site construction works and the ongoing village operation.

Site visits were carried out in March and June 2011. While generally good controls were in place on site during the works period, two matters arose and required rectification.

- Collection of water quality samples was found to be occurring at inappropriate locations, which meant that full data interpretation was not possible. This was corrected after meeting with the onsite contractor responsible for sample collection and providing training and instructions on what was required to meet consent requirements.
- In May 2011, a blockage in the Milford main sewer line occurred as a result of a manhole cover being displaced during the works, and the sump filled with debris. Sewage backed up and emerged from a manhole further up the line. Steps were taken to mitigate the spill and no sewage entered the Milford Sound environment, although an infringement notice was subsequently issued to the contractor in question by Environment Southland.

Overall a high degree of care has been evident in how the consents have been exercised and the relationship of the activities to the sensitive local environment. The construction portion of the project is expected to be completed by October 2011, but further inspections will be required to monitor stormwater discharges, and to manage the newly-constructed flood banks.

Oil spill response

Environment Southland was involved in four oil spill responses in the FMA. The first was in December 2010 when the MV Hilda J capsized and came ashore 2.5-kilometres southeast of Puysegur Point. The ship subsequently sank during a salvage attempt, but there was no fuel or oil spilled. Three minor spills (1 litre or less) were reported in Fresh Water Basin, Milford Sound, in January, March and April 2011. The source of the first spill was not identified, and the other two were from pipe leaks, which have been repaired.

Resource consents

The Guardians are considered to be affected parties for any resource consent applications for the FMA, and provide advice to the Council. The Guardians considers the applications and report back to Environment Southland on the issues, or makes a submission, attending pre-hearing meetings and hearings, depending on the nature and extent of the proposed activities.

This year the Guardians were asked to give written approval for an application from the Milford Sound Development Authority. The application was to reclaim land, erect a temporary breakwater, disturb the foreshore and seabed and deposit dredged gravel and silt onto the foreshore and seabed at Freshwater Basin, Milford Sound, as part of the construction of a breakwater. At year end this application was on hold, awaiting further information.

Moorings and anchorage areas

The investigation into cruise ship anchoring sites in Fiordland continued in 2010/11. Suitable anchoring areas had been identified by a senior Fiordland pilot. This information was used for the next part of the project: to evaluate the substrate in each location to determine if the area was likely to have sensitive organisms that might be adversely affected by larger ships anchoring. This investigation has been assisted directly by Guardian Mark Peychers, providing advice during the survey.

The substrate evaluation was carried out using NIWA side scan sonar equipment, on board the DOC vessel Southern Winds. This will be followed in the next year with a remotely operated underwater vehicle survey to confirm the link between substrate and sensitive organisms. Information from these surveys will be used to determine locations where cruise ships may safely anchor, while minimising the disturbance of sensitive organisms.

Utilisation of space efficiently within Deep Cove by moorings and wharfs

The investigation into the utilisation of space within Deep Cove, Doubtful Sound was undertaken in 2010/11. This was in response to concerns over the area not being utilised efficiently with structures potentially spreading Helena Anchorage on the eastern side of Deep Cove.

Consultation was undertaken with users and interested parties of the area where the public was initially given the opportunity to provide ideas of how the area could be utilised more efficiently with structures. Opportunity was then given to provide comment on possible preferred options that staff had collated. The assessment, including public feedback, was reported to Council in June 2011, who deferred making a decision until a site visit was completed.

Vessel use for agencies and environmental cleanup purposes proposed plan change

Work commenced on the proposed plan change to enable vessel use in Fiordland for agencies and environmental cleanup purposes without requiring a resource consent. At present if a vessel is hired or if the vessel is used as a base to undertake research activity it requires a resource consent to undertake the activity within the internal waters of Fiordland.

Consultation was undertaken with users and interested parties of the area providing an opportunity for feedback on the suggested plan provisions. The feedback will be taken into account when considering the suggested plan provisions in the plan change that is notified.

Aids to navigation

Four new Aids to Navigation (AtoN) were placed over Tarapunga Rock, Doubtful Sound, at the northern entrance to Breaksea Sound, Paget Passage and Cascade Cove in Dusky Sound. Unfortunately two of the AtoN (Tarapunga Rock and Breaksea Sound) did not survive a battering from severe weather, and further work is continuing to determine better and more robust options. The installation of these AtoN required a coastal permit and the Guardians submitted on this application.

Looking ahead

Environment Southland will continue to work with the Fiordland Marine Guardians and management agencies to provide a local perspective in managing the coastal waters of the FMA, and to support the Guardians in its stewardship of the area.

Appendix 4: Guardians' biographies



Stewart Bull

Stewart Bull has extensive knowledge of customary uses of Fiordland, particularly customary fishing. He is the chair of the Oraka-Aparima Rūnanga and is the Oraka-Aparima Rūnanga representative on the Board of Te Rūnanga o Ngāi Tahu. Stewart is a Tāngata Tiaki, appointed by the Minister of Fisheries, in recognition of his particular expertise in local customary fishing management and resource issues. He is the Oraka-Aparima Rūnanga representative on the Customary Fisheries Advisory Group. Stewart has been a member of the Guardians of Fiordland since its inception.



Jerry Excell

Jerry Excell is a commercial rock lobster fisherman operating out of Deep Cove. He is the director of a family fishing and quota owning company. Jerry has fished for more than 12 years in Fiordland and is heavily involved in the CRA8 rock lobster fishery as a member of the CRA8 Management Committee Inc Board (the southern commercial rock lobster industry organisation). He is also involved in research projects; collecting and providing data about the rock lobster fishery.



Ken Grange

Ken Grange is a marine ecologist, and the Regional Manager of NIWA Nelson. He has a broad understanding of general marine science and, in particular, the Fiordland marine environment. Ken was the first to describe scientifically the unique marine environment of Fiordland, and is an internationally recognised expert on black coral. He is a member of a number of societies, institutions and committees, including the New Zealand Marine Sciences Society and the Royal Society of New Zealand.



Alan Key

Alan Key has fished recreationally in Fiordland for the last 28 years. He is a long-term recreational fishing representative and is a current or past member of the Southland Sports Fishing Club, the Ministry of Fisheries South Marine Recreational Fisheries Advisory Committee, the Southern Blue Cod Advisory Committee, the Foveaux Straits Oyster Management Group and the Southland Marine Recreational Fishers Association. Alan has been a member of the Guardians of Fiordland since its inception and was involved in the Paterson Inlet Marine Reserve working group.



Malcolm Lawson

Malcolm Lawson is the Chief Executive of the CRA8 Management Committee Inc. He is heavily involved in commercial fisheries management in Fiordland. He is a member of the New Zealand Rock Lobster Industry Council and the Operations Manager for the New Zealand Inshore Fishing Industry Council. Malcolm also sits on the ministerial advisory group for rock lobster and is a company director. Malcolm has previously worked for MFish. He is the chairperson of the Fiordland Marine Guardians.



Sir Alan Mark

Sir Alan Mark is an Emeritus Professor of botany at the University of Otago. He has been heavily involved in conservation management for 30 years and is highly respected in this field. Sir Alan has been a long-term member of many conservation organisations, including Forest & Bird Protection Society, the Royal Society of New Zealand and the New Zealand Ecological Society. He was chair of the Guardians of Lakes Manapouri and Te Anau for its first 26 years, and has been a member of the New Zealand Conservation Authority. He has been a member of the Guardians of Fiordland since 2001.



Anne McDermott

Anne has significant experience of the area, having dived, fished and tramped in Fiordland for 20 years. She has dived in the fiords more than 350 times (in Preservation, Chalky, Dusky, Breaksea, Doubtful, Nancy, Charles and Caswell Sounds), giving her first-hand experience of the Fiordland marine environment. Anne and her husband own a boat and she has many contacts among the Southland recreational fishing, boating and diving sectors.



Mark Peychers

Mark has three decades of first-hand experience of the Fiordland marine environment, including 28 years as a commercial fisher. He was an original member of the Guardians of Fiordland's Fisheries. Through his work in Fiordland, Mark has built up positive relationships with DOC, MFish and Environment Southland. He is a shareholding director of Fiordland Lobster Company Limited and is actively involved with fisheries management in Fiordland, as well as other areas of New Zealand. Mark was involved in the implementation of the first two marine reserves in Fiordland.

BENEATH THE REFLECTIONS

A User's Guide to the Fiordland
(Te Moana o Atawhenua)
Marine Area



This **fully water-proof** 'one-stop shop' guide will help you get the most out of your visit to Fiordland.

It contains information on:

- how the Fiordland Marine Area was established
- the history and physical and biological environment of the Fiordland Marine Area
- relevant Fiordland marine regulations
- practical information on visiting the area.

ON SALE AT:



DOC's Fiordland National Park Visitor Centre
Lakefront Drive, Te Anau, phone: 03 249 7924,
email: fiordlandvc@doc.govt.nz

DOC's Invercargill Office
Level 7, 33 Don Street, Invercargill



Or online at www.fmg.org.nz





**Fiordland
Marine Guardians**
Beneath the Reflections

www.fmg.org.nz