

# Annual Report

for the year ended 30 June 2012



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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for the year ended 30 June 2012



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## Acknowledgements

Thank you to the following who provided images for this annual report.

MAIN COVER IMAGE: Doubtful Sound sunset, *Paddy Ryan*.

FRONT COVER IMAGES: Marta with wiggling blue cod, *S Logie, MPI*; Southern Right Whale tail fluke, *MPI*; Orange and green anemone, *R Kinsey, DOC*; Diver preparing for Undaria surveillance, *R Kinsey, DOC*; *FV Exporta* lifting crayfish pot off Thompson Sound, *S Logie, MPI*.

BACK COVER IMAGES: Pink column sponge, *K Blakemore, DOC*; Groper Catch Sunday Cove, *Fraser Wilson*; Jasons nudibranch, *R Kinsey, DOC*; *CV Takaroa II* with charter party and cray pot, *S Logie, MPI*. Grant Jones on *Miss Akaroa* with crayfish catch, *S Logie, MPI*.

INSIDE FRONT COVER: Above/below view Greenstone Bay, *Darryl Torckler*.

PAGE 3: Camouflage crab, *R Kinsey, DOC*; Acheron Passage towards Long Island, Dusky Sound, *S Logie, MPI*.

PAGE 6: Hon Kate Wilkinson, Minister of Conservation, with the Guardians, *DOC*; Scallops Fiordland, *S Logie, MPI*.

PAGE 9: Algae community in Sunday Cove, *K Blakemore, DOC*. PAGE 10: *CV Tutoko II* with Squirrel, Breaksea Sound entrance, *S Logie, MPI*.

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PAGE 16: Blue cod, *K Blakemore, DOC*; Seahorse, *R Kinsey, DOC*; *Southern Winds*, Supper Cove, *S Logie, MPI*.

PAGE 19: Starfish, *K Blakemore, DOC*. PAGE 22: Guided sea kayaking lunch stop, Milford Sound, *Tony Brunt/hedgehoghouse.com*.

# Chairperson's report

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During the last year the Fiordland Marine Area (FMA) has continued to provide challenges and some surprises.

The challenge for the management agencies and the Guardians is how to use available budgets in the most productive way. This was, and remains, one of the cornerstones of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005. The move to a more integrated approach to the management of the FMA, as contemplated by the Act when it was introduced, provides the opportunity. So each year we look at the priorities that need to be addressed and what can be achieved.

Acting on one of these priorities led to some new discoveries. It is considered that the sill communities discovered during surveys of cruise ship anchoring areas are some of the most significant found anywhere in Fiordland. The challenge now is to decide what measures to recommend to protect these areas. While we want these areas to receive the protection they deserve, we are also very aware of the rights of users of the FMA. As always we will be looking at a measured response, including the identification of areas suitable for anchoring. I have no doubt that, as other deep areas are explored, they will continue to produce new species and organisms of interest.

While it may not be apparent, we have also been working to consider and implement some of the recommendations for changes to fisheries regulations that came from last year's public consultation on the current rules. The wheels sometimes move slowly but I can assure you that progress is being made. It is clear that the rock lobster population in the inner waters of the fiords has increased markedly over the last few years and there is now a chance to ease the restrictions on the daily bag limit within these areas. The exception is Milford Sound where the limited amount of habitat limits the number of rock lobsters. Again, part of our deliberation has been to weigh up not only the impacts on fishers, but also the potential impacts on the fisheries.

Two potential Southland Coastal Plan changes that we have been involved in during the year are the Environment Southland review of the moorings and structures in Deep Cove, and the proposal to amend restrictions on the access to the fiords for larger vessels for specific reasons.

As in previous years, we continue to receive reports on various studies that have been carried out and provide comments on resource consent applications. Our response is always a balancing act that tries to satisfy the policies of Government, the vision of the Guardians, the expectations of the users and the wider public of New Zealand, while managing any impacts on the uniqueness of the FMA environment. Ultimately our aim is always that there are no losers.

I want to acknowledge the efforts of all of the management agency staff, as without them and their support we could not hope to meet this aim.



**Malcolm Lawson**

*Chairperson*



CAMOUFLAGE CRAB

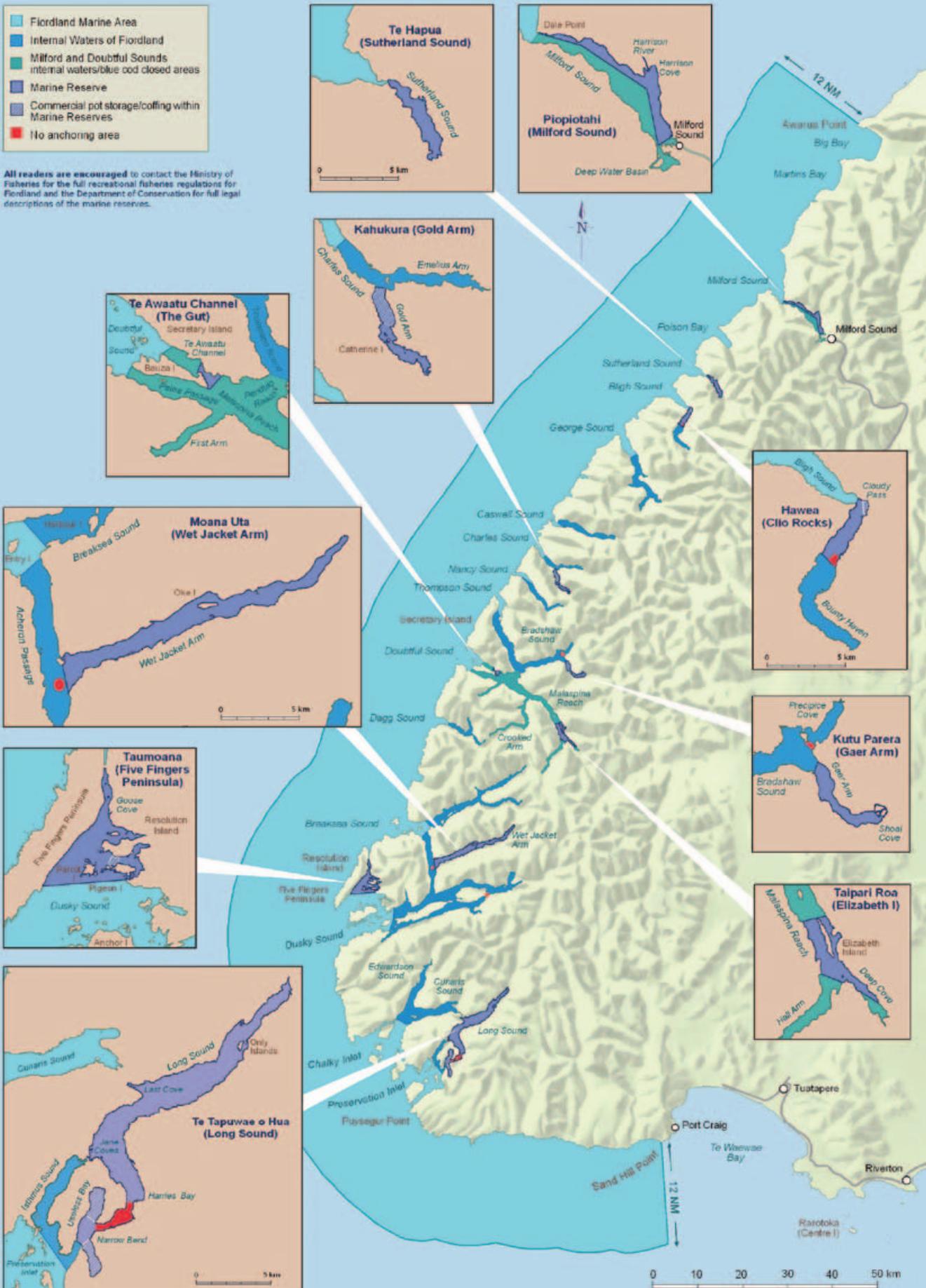


ACHERON PASSAGE TOWARDS LONG ISLAND, DUSKY SOUND

# 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/coffing 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

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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,<sup>1</sup> 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.

<sup>1</sup> The management agencies are the Ministry for the Environment, the Ministry for Primary Industries (formerly Ministry of Agriculture and Forestry and Ministry of Fisheries), the Department of Conservation and Environment Southland

# Achievements in 2011/12

## Monitoring projects during 2011/12

The Guardians were involved in, and received reports on, the monitoring projects reported below. Each is discussed in further detail in Appendix 3 of this report, where management agencies report on their activities over the past year.

### Milford and Doubtful Sound blue cod monitoring

The Ministry for Primary Industries (MPI) reported on the results of the research project undertaken by the National Institute of Water and Atmospheric Research (NIWA). This project employed a new technique for attaining and assessing blue cod population estimates using baited underwater video equipment.

While results are still to be finalised, preliminary reports appear to confirm the view that blue cod numbers within the inner fiords are low, with little migration from the outer coast.

### Bottlenose dolphin monitoring

Population censuses for Doubtful and Dusky Sounds were reported by Shaun Henderson, of the University of Otago. Shaun has continued a long-term study in Doubtful Sound, overseen by the University, into the photo identification and population recording of its dolphin population. In conjunction with the Department of Conservation, this has been extended to also include the Dusky Sound population, allowing a comparative study of the habitat, reproduction and survival of the two populations.

There has been a long-held view that the Doubtful Sound dolphin population rarely, if at all, ventured outside the Doubtful-Thompson complex. However, recent research is mounting to indicate this may be changing.

Results of this monitoring are provided later in this report, in the section titled: *Bottlenose dolphin monitoring in Fiordland – an update*.

### Cruise ship anchoring research

In 2010, the Guardians asked Environment Southland to undertake an assessment of areas suitable for anchoring smaller-sized cruise ships. It was recognised that areas needed to be identified where ships could safely anchor without damaging sensitive and important seabed communities. Work was carried out at that time using side-scan sonar equipment.

During February 2012, NIWA carried out further work using a remote-operated vehicle (ROV). The video footage captured by the ROV revealed previously undiscovered sill habitats and a range of important species. Guardian, Mark Peychers, was heavily involved in this project.

The Guardians and management agencies have assessed the threats to these communities – the most obvious being activities that include impact with the seabed. Recommendations on measures to address these threats are currently being developed.

More information is provided later in this report, in the section titled: *Remote-operated vehicle extends our knowledge*.



SCALLOPS FIORDLAND



HON KATE WILKINSON, MINISTER OF CONSERVATION, WITH THE GUARDIANS

## Biosecurity

The Guardians continued to receive reports on the monitoring of vessels in Bluff Harbour for the presence of *Undaria* (*Undaria pinnatifida*). The level of cooperation and understanding among owners of vessels that travel to Fiordland is high.

Because Bluff Harbour remains the main departure point for vessels travelling to the FMA, the Guardians are very supportive of this work as it addresses a concern held for a number of years.

## DVD

The DVD describing the history and promoting the work of the Guardians and management agencies was completed by Bryan Campbell of Big Screen Productions. The DVD has been distributed to a number of parties and is available for presentations to people or groups interested in the Guardians' collaborative management model. It will be used at public forums, such as boat shows. The DVD will also be available on the Guardians' website, once this has been fully updated.

The DVD project has been a major focus for the Communications Subcommittee of Anne McDermott and Alan Key, in collaboration with representatives of the management agencies.

## Visit by the Minister of Conservation

In July 2012, the Minister of Conservation, Hon Kate Wilkinson, was hosted by the Guardians. Her visit involved a day trip to Doubtful Sound on board the *GV Southern Winds*, her first visit to this part of the FMA. Presentations and discussions with the Guardians and management agencies on their roles were held during the trip.

The Guardians value these trips as an opportunity for Ministers of the Crown to experience first-hand the challenges posed by managing such a large and isolated area. Ongoing high-level support is vital for the effective management of the FMA.

## Oil spill response planning

While there are no immediate concerns about an oil spill, the Guardians questioned what form the response would take if a large-scale spill occurred within the FMA. The Guardians were particularly interested in who would take charge, the availability of physical resources, and the time frames involved in putting recovery measures into place.

This provided the opportunity to comment on two documents produced by Environment Southland: *the Fiordland Marine Oil Spill Plan and the Fiordland Marine Oil Spill Contingency Plan*.

## Review of the rules governing the Fiordland (Te Moana o Atawhenua) Marine Area

The review of rules governing the FMA was completed during the year, with all submissions and comments summarised to help the Guardians compile a series of recommendations. The review is discussed in the next section of this report.

## Presentation to Southland Institute of Technology

Guardians' Chairman, Malcolm Lawson, provided a presentation to students of the Environmental Management course at the Southland Institute of Technology. The presentation illustrated a collaborative approach to conservation management that aims to achieve a balance between the environment and the rights of users.

## Joint-agency Marine Biosecurity Response Agreement

The Guardians are pleased to note that the Joint-Agency Marine Biosecurity Response Agreement for the FMA was signed off during the year by senior managers of the agencies involved – the Department of Conservation (DOC), Environment Southland and MPI. Although only formally ratified this year, the Agreement has already proved its worth in providing the blueprint for the response to the *Undaria* outbreak in Breaksea Sound. The development of the Agreement arose from a 2006 meeting between the Guardians and the then Minister for the Environment, which discussed the lack of clarity about roles and the lines of responsibility for biosecurity in the event of an incursion within the FMA.

# Advice and recommendations given

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## Resource consents

The Guardians received a number of resource consent applications during the year. These fell into three categories:

- Non-notified, where the Guardians were 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.

Those of particular interest included:

### Dive Queenstown Ltd

Dive Queenstown Ltd applied to use a trailer-borne vessel to carry out diving trips in the Milford Sound area. Because the vessel is also used in areas outside the FMA, the Guardians asked for appropriate biosecurity measures to be put in place to avoid the unintentional transportation of unwanted marine organisms attached to the boat or associated gear. These were addressed by the applicant and included in the consent conditions.

### NIWA

As part of the required Meridian Energy Ltd monitoring programme, NIWA applied for consent to site three moorings for scientific monitoring equipment near Deep Cove. The area for the proposed moorings contain fragile seabed communities, such as glass sponges and red corals. Discussions were held with NIWA to ensure that the placement of the moorings would not impact on these communities.

### Approval sought as an 'affected party'

During the year the Guardians signed off various applications for consent renewal as an affected party. These included :

- South West helicopters – consent for permanent mooring for the barge 'Pressy Puss' in Preservation Inlet.
- A and B Johnson – consent for mooring a barge associated with the commercial fishing business in Dusky Sound.
- Real Journeys – consent for the operation of various tourist vessels.
- Southern Discoveries Ltd – consent for the Milford Sound Underwater Observatory.

### General

The Guardians have asked Environment Southland to keep them informed not only about consent applications for the FMA, but also any land-based applications that may impact on the FMA.

## Review of the Southland Coastal Plan

The Guardians were involved at the pre-consultation stage of the review of the Southland Coastal Plan, in which Environment Southland consulted key stakeholders for their views. Two topics of particular interest were:

### • Deep Cove mooring and structures review

It is the Guardians' view that there are opportunities to better utilise the existing mooring space on the west side of Deep Cove to provide secure mooring and berthing for an increased number of vessels.

The Guardians note that the most contentious part of this review will be the proposal to provide two public swing moorings and up to four private moorings, including stern ropes, on the eastern side of Deep Cove.

- **Vessel use in the FMA for management agency and environmental purposes**

The Guardians supported proposals to amend the restrictions on the entry of larger vessels used in scientific research or in support of agencies carrying out management roles in the fiords. The Guardians recognise that the use of larger vessels than are currently allowed provides for efficiencies and, in some cases, for work to be carried out that could not be done from smaller vessels.

The Guardians supported widening the scope of the proposal to include vessels that require access to support conservation projects on land within the Fiordland National Park. These projects regularly require support from vessels, and it is highly possible that at times large or specialist vessels are needed.

## Regional Pathways Management Plan

The Guardians accepted a report from Environment Southland and MPI that the threats to the FMA are now wider than in the past due to vessels travelling to the FMA from more distant ports. As such, there is a need to develop a plan targeting specific high risk pathways.

The Guardians submitted to the Environment Southland Long-term Plan supporting funding to develop and implement such a Plan for the next three years, and then for an ongoing period.

## Biosecurity threats

Following the discovery of the Japanese shrimp (*Caprella mutica*) in Bluff Harbour, the Guardians have advised that they want to be kept apprised of the discovery of any biosecurity threats that could impact on the FMA. The rock wall communities within the FMA are considered to be most at risk from an invasive organism.



# Review of the rules governing the Fiordland (Te Moana o Atawhenua) Marine Area

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As signalled in previous annual reports, with the Act in place for five years, the Guardians undertook a review of the rules governing the FMA. This review was completed during the early part of the year.

The review was structured according to the eight objectives included in the original Fiordland Marine Conservation Strategy. A summary of submissions on each objective, and the Guardians' responses, is provided below.

## 1. Information

- FMG must consider a broader range of methods to communicate information.
- Research on the FMG website needs to be updated and the structure of the website examined.
- There is a need to be proactive in getting information out.

### Guardians' response

- Having a RSS feed on the website sounded positive.
- It was recognised the website needs to clearly indicate 'new' information.
- It was decided that Facebook is not the best option for the Guardians at this time.
- The website will be updated and restructured.



## 2. Fisheries:

- People think the bag limits are quite generous.

### **Rock lobster**

- The state of the fishery is such that daily limits for the inner waters could be increased from three to six rock lobsters, to be consistent with the outer areas. The 15 lobster accumulation limit should remain.

### **Blue cod**

- The majority of submitters want the Doubtful and Milford Sounds' fisheries to remain closed until the research is completed.
- People want to be able to gill and gut fish at sea and don't want rules changed to require whole fish to be landed.

### **Bluenose**

- There is support for a reduction in daily limit to five bluenose.

### **Long lines and dahn lines**

- There is support for addressing the anomaly in the regulations so that no more than five hooks and two lines per vessel are allowed.

### **Guardians' response**

- The Guardians recommend that daily limits of rock lobster from the inner waters be increased from 3 to 6, with accumulation remaining at 15. The limit of three rock lobster would remain in Milford Sound, recognising the area's limited habitat and the risk of depletion if the bag limit was increased.
- The Guardians recommend amendments to current regulations to address the issue of identifying ownership of rock lobsters when multiple fishers use the same holding pots. Amendments may include a requirement for written records to be held on boats detailing names of fishers, number of fish caught, number of days fished, etc. A method of identifying rock lobsters owned by individuals within shared holding pots is also required.
- The Guardians support keeping Doubtful and Milford Sounds closed to blue cod fishing to allow consistency between research projects. It is the intention to develop a management plan once research projects have been completed.
- The Guardians support the proposal to reduce the daily bag limit for bluenose to five for all areas of the country.
- The Guardians recommend addressing the current unintended anomaly by amending the definition of long lines in the Southland regulations to restrict fishers within the FMA to possessing, using or setting not more than one dahn line or long line, with a maximum of two dahn lines or long lines per vessel, together with a maximum of five hooks per line.
- The Users' Guide contains incorrect internal waters line coordinates for the main Patea/Gaol Passage entrance into Doubtful Sound (the latitude and longitude coordinates have been switched). The correct position is shown, but the coordinates are incorrect. The error also affected the blue cod closed area co-ordinates. One other minor error was detected requiring a correction to one of the Thompson Sound internal waters co-ordinates. Consequently both the Southland amateur fishing regulations and the Southland commercial fishing regulations have been amended with effect from 1 May 2012.

## 3. Values of special significance

- Research is required on scallop populations and sustainability.
- 'China shops' appear at an acceptable level.

### **Guardians' response**

- The Monitoring Subcommittee will consider adding scallop research to the long-term plan, along with soft sediment monitoring.

## 4. Risks to the marine environment

- The Vessel Intentions Register is not universally supported.
- Other mechanisms should be used to get the messages out – for example, using marine radio to broadcast the biosecurity message.
- The increase in the seal population should be examined. It could have an impact on recreational bags limits.
- A 'Warrant of fitness' was suggested using red and green stickers for vessels that have been inspected. It was accepted that this would only apply to the day of the inspection.

### Guardians' response

- Recommend investigating whether marine radio can be used to promote the biosecurity message.
- The Monitoring Subcommittee will examine information from DOC and determine whether a seal census and diet research should be carried out.

## 5. Expressing kaitiakitanga

- People are generally supportive of the current approach.

### Guardians' response

- Status quo to be retained.

## 6. Implementing the Strategy

- Most people are happy with the way the Strategy has been implemented.
- There is support for investigating options for legal mechanisms to allow rule changes to be made without undue delay.

### Guardians' response

- Agencies will be asked to examine options for mechanisms that would allow quicker changes to be made.

## 7. Compliance

- The comments were generally positive.
- Submitters agreed that more work could be put into communication.
- Some areas were identified where more compliance is needed.

### Guardians' response

- Recommendation that compliance monitoring in Milford Sound be increased during long weekends and holidays because fishing activity increases at these times.

## 8. Monitoring the performance of the Strategy

- People indicated that they want to be kept informed if changes are made to the Strategy.

### Guardians' response

- The Guardians recognise the need to provide up-to-date information, and will continue to do so.



KINA ON UNDARIA PLANT



DIVERS PREPARING FOR UNDARIA SURVEILLANCE

## Undaria in Sunday Cove – progress on the local elimination project

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Promising progress has been made in the last 12 months towards local elimination of the pest seaweed, Undaria, from a small area in Breaksea Sound. A single mature plant was found there in April 2010.

Over the past year, 862 plants have been removed, bringing the total removed to more than 1800 plants. There has been a substantial decline in the number of plants found during the surveys over the last 12 months.

The kina transferred to the area as a biocontrol agent have proven to be very successful, both in clearing the algal canopy from part of the area to make searching easier, and also in grazing directly on the early stages of new Undaria plants. New plants are now only being detected in a few small areas. As expected, they are continuing to appear in small numbers as the spores germinate at varying times of the year.

The project team (Environment Southland, DOC and MPI) and the Guardians believe local elimination is achievable, and urge boaties to play an active part in ensuring no more Undaria, or indeed any other marine pests, are transferred to the FMA.

It is hoped that within the next 1 – 2 years, Fiordland will once again be free of Undaria. This will be significant for the area's unique marine biodiversity, as well as its important commercial and recreational fisheries.



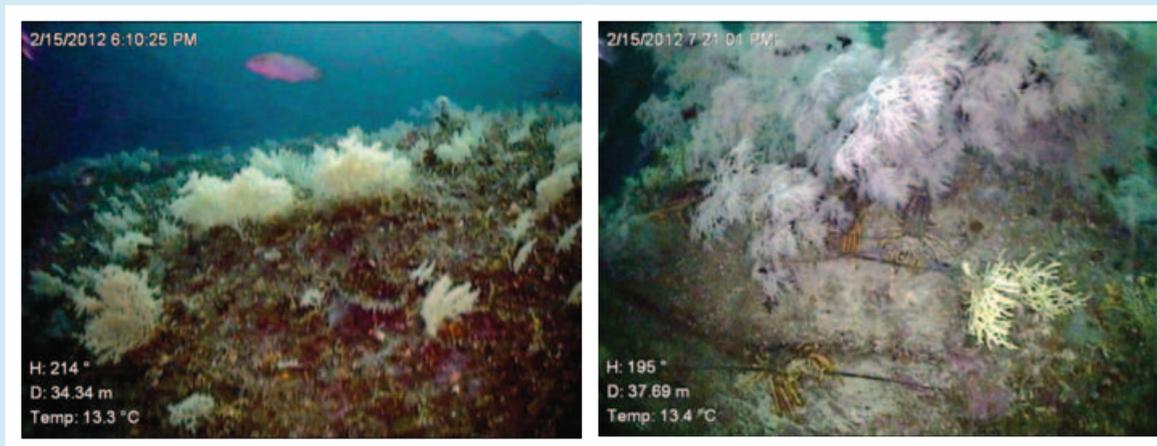
# Remote-operated vehicle extends our knowledge

During the past year, the Guardians supported a project funded by Environment Southland and undertaken by NIWA to assess various areas that may be suitable for ship anchoring. The project, using sophisticated sampling equipment, including side-scan sonar and a remote-operated underwater vehicle (ROV) with video equipment, has discovered some previously unknown habitats.

The fiords were formed by glaciers some 16,000 – 20,000 years ago and are characterised by deep basins with one or more rocky sills that mark the seaward extent of the former glaciers. Some fiords have several sills along their length and can be relatively shallow (some less than 50 metres), in stark contrast to the deep basins that are up to 300 metres deep.

The newly discovered habitats occur on deep reefs and on the old glacier sills in depths too great for safe scuba diving. The habitats support high biodiversity, with rare and fragile species that could not survive heavy anchors and chains being dragged across them. These include large areas of coral fans, rare and protected fragile red coral, sponges and sea pens. Black coral colonies, over one metre tall, provide shelter to large numbers of rock lobsters, while dense schools of fish, such as butterfly perch and grouper, hovered above.

Below are snapshots from video images taken with the ROV.



A. AREAS OF FAN AND BLACK CORALS WITH ROCK LOBSTERS SHELTERING BENEATH, DOUBTFUL SOUND



B. GROUPER AND FAN WORMS IN DUSKY SOUND

# An update on bottlenose dolphin monitoring in Fiordland

DOC and the University of Otago continued the population monitoring programme for bottlenose dolphins this year.

The focus was again on the populations in the Doubtful Sound and Dusky Sound complexes.

Three trips are made to each area annually to count the dolphin populations using photo-identification. Each area has a catalogue of animals that are well known and easily identifiable from photos of their dorsal fins.

Doubtful Sound (as at February 2012): There are currently around 61 individuals in the population in Doubtful Sound, which includes 6 new calves (out of 8 born) from the 2011/12 summer season. This is an increase of 10 animals over the last 2 years, which is very encouraging if the calves manage to make it to adulthood. Table 1 gives an indication of how the population has fared since 2008, based on data from the monitoring trips.

Table 1: Dolphin population data for Doubtful Sound since 2008

YEAR	POPULATION CENSUS	CALVES	SUB-ADULTS	ADULTS
2008	52	+5/-2	-2	-
2009	51	+1/-1	-	-1
2010	56	+8/-3	-	-
2011	61	+8/-2	-	-1

To reach the census figures, add and/or subtract each year's births and deaths from the previous season's total. For example, in 2009 there was 1 birth and 2 deaths, so the population went from 52 to 51.

The reason for the loss of sub-adults and adults has not been confirmed and could be due to them dying or emigrating out of the fiord. This year, there have been regular occasions when dolphins seemed to leave the Doubtful Sound complex for periods of time. It is believed that they are heading both north to Nancy Sound, and south to Dagg Sound. However, getting photographic evidence is difficult. None of the individuals leaving Doubtful Sound have been spotted in Dusky Sound.

While it is good news that the population has done better over the last few seasons, it may not prove to be a long-term trend. Further monitoring will keep us informed of any changes in the population.

Dusky Sound (as at February 2012): There are currently around 124 individual dolphins in the Dusky Sound population. Ten of the 14 calves born in the 2011 season are still alive and well, although 3 of those 10 had not reached 1 year old in February 2012. Table 2 shows the fluctuations in the population since 2008. These figures are more variable than Doubtful Sound because there is still not a definitive number in the population, and greater numbers of animals are not sighted between trips.

Table 2: Dolphin population data for Dusky Sound since 2008

YEAR	POPULATION CENSUS	CALVES	SUB-ADULTS	ADULTS
2008	102	+12/-5	-	-
2009	114	+6	-	-
2010	113	+10/-1	-	-
2011	124	+14/-4	-	96

Monitoring in Dusky Sound has now been running long enough to form an idea of calf and adult survival rates. A report is due out later in 2012 which will look at these figures, but it seems that Dusky Sound calves have a better survival rate than those in Doubtful Sound.

## Other activities undertaken by the Guardians

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### Meetings

Five meetings involving Guardians and management agencies were held during the year. Further details are in Appendix 2 of this report.

### Newsletters

Three newsletters were sent out during the year to the 465 people on the Guardians' contact database. The newsletters contain articles and photographs of happenings in the FMA, as well as updates on research. The newsletters are very well received.

During the year, 92 recipients opted to receive an electronic copy rather than continue to receive a paper copy sent by mail. The electronic option is becoming so popular the Guardians will also offer it to those who receive their annual report.

### Marking of marine reserves

Good progress was made during the year towards the construction and erection of pou pou as boundary markers for some marine reserves. Iwi have agreed to the design, and the construction of the stainless steel bases for mounting the pou pou has begun.

### User Guide

Sales of *Beneath the Reflections – A User Guide to the Fiordland (Te Moana o Atawhenua) Marine Area* have slowed over the last year. This is likely to be because the guide had an initial high uptake among those venturing to Fiordland. The User Guide continues to be a valuable resource for those people, as well as for new visitors to the area.

Approximately 600 copies have been sold or distributed.

### Environmental Defence Society

Malcolm Lawson was interviewed by members of the Environmental Defence Society (EDS) for a case study about the Doubtful Sound bottlenose dolphin population, as part of a wider study into New Zealand's dolphin populations.

The EDS was particularly interested in what the Guardians consider the threats to be to the population, and how the interests of both the dolphins and vessel operators were considered during the development of a management response. At the time of this response, the Guardians considered DOC's Threat Management Discussion Paper, organised a public forum on the topic, and considered, then supported, the initiatives promoted by the tourist vessel operators.



BLUE COD



SEAHORSE



SOUTHERN WINDS

# Looking ahead – the next 12 months

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## Website redesign

A website redesign is being undertaken by the Ministry for the Environment (MfE) and will be completed during the annual reporting year with the inclusion of more content and more links to associated websites containing relevant information.

## Implementation of recommendations from Rules Review

The Guardians will look to progress the recommendations arising from the review of the Rules Governing the FMA, discussed earlier in this report.

## Visit by Minister

Following the success of previous visits, invitations to visit the FMA will continue to be made to Ministers responsible for the management agencies.

## Implementation of changes to cruise ship anchoring areas

The Guardians will support Environment Southland in progressing the identification and implementation of suitable cruise ship anchorage areas.

The Guardians will also recommend appropriate management measures to protect the important seabed communities discovered during the anchorage areas assessment project.

## Appointment of Guardians members

The Minister for the Environment is currently undertaking an open nominations process to appoint new Guardians and reappoint existing Guardians whose membership has expired. Succession planning to meet future membership needs was identified as an issue in the 2010 Ministerial Review of the Act and an open process will help address this. This process is likely to be completed by the end of 2012.

## Doubtful and Milford Sound blue cod management

A management plan for the blue cod fisheries in Doubtful and Milford Sounds will be developed, based on feedback to the rules review and research results.

## Southland Conservation Management Strategy and World Heritage status proposal

As part of public consultation on the revision of its Southland Conservation Management Strategy (CMS), DOC will consult on the proposal for an application for World Heritage status for the waters and seabed of the fiords of Fiordland (Te Moana o Atawhenua), as an addition to the Te Wahipounamu – South West New Zealand World Heritage Area.

During the year, advice was received on the potential implications and benefits of such a listing. The Guardians support the inclusion of the proposal in the CMS review and will consider their position on the actual proposal during the year.

## Boat shows

The Guardians will continue to have a presence at boat shows within the Otago/Southland area to promote the FMA and the work of the Guardians and management agencies. These occasions provide a valuable opportunity for Guardians members to interact with people who have an interest in and visit the FMA.

## Oil spill response plans

The Guardians will provide comments to update plans produced by Environment Southland. This is covered in more detail in the section titled: Achievements in 2011/12.

# Appendix 1: The Act – its purpose and function

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

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### 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

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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:

### 2011

<b>15 July</b>	10.00 am – 4.00 pm
<b>6 September</b>	10.00 am – 3.50 pm
<b>16 November</b>	10.00 am – 3.40 pm

### 2012

<b>8 February</b>	9.00 am – 10.30 am – Monitoring Subcommittee
<b>20 February</b>	10.00 am – 4.25 pm
<b>26 April</b>	10.00 am – 4.15 pm
<b>21 June</b>	1.00 pm – 3.00 pm – Biosecurity Subcommittee



## Appendix 3: Agency reports

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### MINISTRY FOR THE ENVIRONMENT

#### Role

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

#### Achievements

There were two key achievements for MfE this year, described below.

##### Guardians DVD

The DVD, *Beneath the Reflections: The story of the Fiordland Marine Guardians*, was completed in October 2011. This educational DVD was produced for use at boat shows and as part of presentations. It includes information on visiting Fiordland, information on the unique marine environment, and a summary of the history of the Guardians and management of the FMA.

Copies of the DVD are available for distribution. As well, in late 2012, the DVD will be made available for viewing on the Guardians' website.

##### Updating the Guardians' website

As reported last year, in January 2011, hosting the Guardians website transferred from Environment Southland to MfE. During the second half of the financial year, MfE began work on a major update of the Guardians' website. This includes refreshing the website's look and updating its structure and content. So far the look has been refreshed and work on the content and structure update will continue in the next financial year.

#### Looking ahead

Finishing the update of the Guardians' website is a priority for the Ministry during the next 12 months. This will allow chapters of the DVD to be made available through the website and make it easier to add and find research reports and other material.

Another priority is running an open nominations process to identify potential new Guardians. We are doing this on behalf of the Minister for the Environment. It is over six years since the last open nominations process so it is worth 'testing the waters' to identify potential new candidates. This will also assist with succession planning to meet future membership needs.



## MINISTRY FOR PRIMARY INDUSTRIES

MPI is a new agency formed through the merger of the Ministry of Fisheries, the Ministry of Agriculture and Forestry and the New Zealand Food Safety Authority. MPI was launched on 30 April 2012.

MPI is focused on 'growing and protecting New Zealand', and its organisational strategy is to increase the sustainable economic growth of New Zealand's primary sector. Key functions of relevance to the FMA include:

- providing policy advice and programmes that support the sustainable development of New Zealand's primary industries
- being the Government's principal adviser on fisheries and aquaculture management
- providing whole-of-system leadership of New Zealand's biosecurity system
- providing or purchasing services to maintain the effective management of New Zealand's fisheries.

MPI also works to ensure that fisheries and other resources are utilised sustainably through a compliance approach that includes educating and informing the public.

## BIOSECURITY

### Role

MPI 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. This important work involves advisers from the MPI Investigation and Diagnostics Centres and Response directorate, who specialise in marine pest surveillance, identification and incursion response.

### Achievements

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

#### Vector management

- **Vessel inspections for marine pests (ongoing since February 2010).**

Moored vessels in Bluff and at Stewart Island that are known to travel to the FMA are inspected on a monthly basis for the presence of marine pests. Antifoul condition and the level of general marine growth on vessel hulls are recorded during these inspections. Any marine pests found on vessel hulls and niche areas are removed by divers at the time. When a marine pest is detected, vessel owners are informed and advised of what action to take before their next visit to Fiordland to ensure their vessel is clean and free of marine pests. Young Fishing Ltd is contracted by MPI to undertake these inspections.

- **Joint-agency compliance and surveillance patrol.**

In April 2012, the MPI once again took part in the joint-agency compliance patrol (also referred to below under Fisheries – Compliance). Vessels encountered during this patrol were inspected by divers to ensure they were clean and free of marine pests. Vessel owners were also advised about marine biosecurity. This was a great way to raise awareness of the importance of keeping marine pests out of Fiordland. This was especially important because significant effort is currently being made to locally eliminate the invasive seaweed, *Undaria*, from Sunday Cove, Breaksea Sound.

- **Code of practice for bilge and ballast water (under way).**

MPI has contracted the Cawthron Institute to develop a code of practice for the management of bilge and ballast water for the FMA. This is expected to be completed in early 2013.

## Communications

- A marine biosecurity message for Fiordland was placed on the marine pages of the Metservice webpage from Christmas 2011 through to the end of June 2012: *"The only things you should leave behind are ripples". If your boat and equipment haven't been properly cleaned and your hull antifouled before entering Fiordland, you could be spreading marine pests.*
- Specific guidance on how to clean marine gear and equipment (eg, fishing, diving gear, pots, ropes, anchors) and non-moored craft (eg, kayaks) and other equipment before going to Fiordland has been printed and inserted into the Fiordland User Guide.

## Joint-agency Marine Biosecurity Response Agreement (signed off)

To support the risk management operational plan, MPI, 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 organism incursions, and is based on the MPI Biosecurity Response System. All agencies signed up to the Agreement in 2012.

## Joint-agency response to Undaria in Sunday Cove

MPI is working collaboratively with DOC and Environment Southland on the joint-agency attempt to locally eliminate the invasive marine pest seaweed, Undaria, from Sunday Cove, Breaksea Sound. Significant efforts have been made over the past year to further improve the effectiveness of the dive surveys and to reduce the chance of any Undaria plants reaching maturity. Results to date show a significant reduction in the number of Undaria plants; however, there is still a long way to achieve success.



## Targeted marine pest surveillance

As part of a national marine surveillance programme, MPI undertakes bi-annual surveys (winter and summer) in 11 locations around New Zealand (including the Port of Bluff). This programme of work looks out for a range of unwanted marine pests in some of New Zealand's busiest, and therefore high-risk, locations – namely ports and marinas of first entry for international vessels. Undertaking surveillance in the Port of Bluff has benefits to the FMA, such as detecting new and emerging invasive marine species. No new marine pests have been found in the Port of Bluff by these surveys over the past year.

## Biofouling import health standard

MPI has done considerable work over the past year on developing a draft import health standard for vessel biofouling on vessels from all countries. This standard is due to be released later in 2012 for voluntary compliance. Enforcement will begin after a 4-year lead-in period during which MPI will work with vessel operators to encourage their early compliance and help them identify options for becoming compliant. MPI considers it necessary to update the economic analysis, which was requested by stakeholders during initial consultation on the import health standard, and which was based on no lead-in period. A scenario will now be analysed based on the 4-year lead-in period. The revised economic analysis will be released at the same time as the standard.

## Scenarios of vessel biofouling risk and their management

As described above, MPI is working toward implementation of an import health standard for vessel biofouling. An understanding is needed of the range of options available to manage biofouling on non-compliant vessels, and the risks associated with their application. Decisions about risk mitigation must balance biosecurity needs with those of New Zealand's other values. This project, undertaken by NIWA, identified the consequences of different biofouling management options under various scenarios of non-compliance. The report is available at:

<http://www.biosecurity.govt.nz/about-us/our-publications/technical-papers#scenarios-vessel-biofouling>

## Biosecurity and chemical contamination risks of in-water cleaning of vessels

Two types of environmental risk must be considered for in-water cleaning:

1. The release and accumulation in the marine environment of chemical contaminants from the vessel's hull coating(s).
2. The release of non-indigenous species (as adults, larvae or viable gametes) into new environments.

The objective of this project, undertaken by NIWA and ES Link Services Ltd, was to investigate the balance between the potential costs and benefits of in-water cleaning as a biosecurity risk management tool. Specifically, the project required a robust analysis of the question: 'When do the environmental costs of releasing non-indigenous species and chemical contaminants during in-water cleaning outweigh the risk of no action?'

The outcomes of this project are expected to be publicly available later this year.

## Looking ahead

MPI will continue to work with the Guardians and other agencies to implement the risk management operational plan recommendations over the next year. MPI will also continue to work collaboratively with DOC and Environment Southland on the current response to locally eliminate *Undaria* from Sunday Cove.

As pathway management is key to protecting the FMA from marine pests, MPI will also work with these agencies on developing a regional pathway plan for the FMA.

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

## FISHERIES

### Role

Under the Fisheries 2030 strategy, the goal for fisheries is: 'New Zealanders maximising benefits from the use of fisheries within environmental limits'. To help ensure this goal is met, MPI fisheries management and science staff from the Resource Management and Programmes branch, and Compliance directorate staff from the Compliance and Response branch, have worked together as part of the Guardians and agencies team.

### Achievements

#### Compliance

For the FMA Integrated Compliance Plan, developed in 2005, MPI Compliance continues the lead agency role, working with rangers and officers from DOC and Environment Southland to deliver an integrated enforcement programme.

Coordination and delivery of joint-agency seaborne patrols utilising the DOC *GV Southern Winds* has proved an effective means to maximise inspection contacts and provides a visible deterrence during periods of peak activity. In late February 2012, DOC and MPI officers joined the Southern Winds in Breaksea Sound for a successful 4-day sea patrol of the lower fiords, resulting in interaction with visiting cruising yachts and local charter and syndicate vessels, with parties both diving and fishing. In early April, during the autumn hunting 'roar', agency staff from MPI, DOC and Environment Southland conducted a comprehensive 5-day Southern Winds patrol covering 9 fiords from Nancy Sound to Preservation Inlet. A total of 35-manned vessels (with 163 people) were inspected, including 9 commercial fishing vessels, 8 charter vessels and 18 recreational craft. A number of fisheries offences were detected resulting in several fishers receiving infringement notices. In addition, MPI Fishery Officers conducted several routine fisheries patrols into Milford and Doubtful Sounds, including statutory holiday long weekends in October and February. Overall, the trends in fisher behaviour and compliance levels remain positive, due to the wide acceptance of the now-established FMA rules.

Within the FMA, 13 registered charter fishing vessels now participate in the Amateur Charter Vessel (ACV) activity and catch reporting scheme. ACV annual registration was introduced in November 2010 to provide and improve recreational fishing information on the main target species. ACV operators are required to keep daily log book records and to report monthly on all ACV activity.

#### Fisheries management and science

MPI has been working with the Guardians on a number of fisheries issues they identified, including a review of the rock lobster recreational daily limit applying within the internal waters, identification of individual fisher's rock lobster catch while it is in holding pots, correcting three internal waters coordinate errors, and a new proposal to restrict the use of rock lobster pots around Seymour Island in Pendulo Reach, Doubtful Sound. While the minor regulation coordinate corrections were amended, with effect 1 May 2012, the remaining work will carry through to 2012/13.

Recreational blue cod fisheries remained a focus this year. Monitoring blue cod stocks in Milford and Doubtful Sounds continued in 2011 using baited underwater video for the first time. A final report is due shortly. The results are likely to generate further discussion in 2012/13 on the best way to monitor and manage Milford and Doubtful Sounds in future.

### Looking ahead

MPI will continue working collaboratively with the Guardians to ensure that fragile ecosystems, such as those at Seymour Island, are given appropriate protection from the impacts of fishing. MPI will also continue to work with the Guardians to identify opportunities to improve the rules around fisheries management to ensure that New Zealanders are able to maximise the benefits of fisheries, within environmental limits.

## DEPARTMENT OF CONSERVATION

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 for the protection of marine mammals within the FMA.

### Achievements

#### Undaria

A significant time investment was again made on the joint-agency response to the incursion of the pest seaweed, *Undaria*, in Breaksea Sound. Promising progress is being made (as described previously in this report) and the joint-agency initiative continues to be successful. It is now bringing wider benefits to the FMA, due to the increased collaboration on other marine biosecurity initiatives, such as education and surveillance.

#### Rock lobster monitoring

The results of a repeat survey of the Te Awaatu Channel (The Gut) Marine Reserve rock lobster monitoring programme were analysed and reported on in the 2011/2012 year. Abundance and size of lobsters within the marine reserve has increased dramatically compared to outside the reserve, particularly since the reserve was established in 1993, but also since the previous survey in 2005. Lobster densities outside the reserve have also increased since the 2005 survey.

#### Bottlenose dolphin monitoring

DOC continues the monitoring of Fiordland's bottlenose dolphins, in collaboration with University of Otago researchers, and with support in the 2011/2012 year from the tourism industry and Meridian Energy Ltd. A second successful breeding year was recorded for the Doubtful Sound group of dolphins, with the last 2 seasons seeing the population boosted by 11 calves.

### Looking ahead

DOC will continue its involvement in the *Undaria* response in the coming year, hoping to consolidate the investment of the last two years and bring the project close to the end goal of complete eradication of *Undaria* from Breaksea Sound.

A re-survey of the long-term monitoring sites within the FMA will be carried out during the 2013 summer. NIWA have been contracted to do this work and the survey will provide important information on the longer-term patterns in the abundance of key species associated with the management of the area.

A full revision of the FMA monitoring plan (implemented by DOC and other agencies) will be carried out in the first half of the 2012/13 year. This plan will set the monitoring and research priorities for the area for the next five years.

DOC will continue to work with the University of Otago on bottlenose dolphin monitoring in Doubtful and Dusky Sounds. Also, a review will be carried out of the Code of Management currently in place in Doubtful Sound to manage vessel interactions with the dolphins.



## ENVIRONMENT SOUTHLAND

### Achievements

#### Biosecurity

Environment Southland Biosecurity staff continued 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.

With support from the Guardians, additional funding and staff time was allocated to focus on marine biosecurity issues within Fiordland. The extra resources are being primarily used to identify gaps within the agencies' existing marine biosecurity programmes. Working with the Guardians, new programmes will be designed and implemented to address those gaps.

In conjunction with the other agencies, inspections of vessels' hulls for marine pests began, both on vessels within Fiordland, and on vessels arriving from national locations into Bluff. Environment Southland is increasing its activity in this area, with ongoing checks for invasive marine pests in Fiordland to become a regular focus. This will help consolidate the gains made to date with other marine biosecurity programmes, such as the *Undaria* elimination programme in Sunday Cove.

Environment Southland continues to play an integral part in the joint-agency response to eliminate *Undaria* from Sunday Cove, Breaksea Sound. As reported elsewhere in this document, considerable progress has been made using a number of new approaches. Environment Southland divers were present on 5 of the 12 surveys conducted over the last year, and this level of involvement will be maintained until the successful completion of the programme.

#### Environmental Compliance

Environment Southland's Compliance Division investigated a number of complaints in the FMA in the last year:

- Deep Cove – a groyne built by the Deep Cove Outdoor Education Trust was an unconsented structure. This has been rectified.
- Dusky Sound – in June, a vessel registered as operating out of the Marlborough Sounds was reported to be in Dusky Sound without a resource consent.
- A second instance of a Picton vessel reported to be operating without a resource consent in Fiordland was investigated in November.

As part of annual inspections, staff interviewed vessel operators, checking for compliance with consents, such as hull inspection requirements and operating limits. Structures were also inspected with no significant compliance issues found.

## Oil spill response

Environment Southland was involved in the following oil spill responses in the FMA:

- Deep Cove, Doubtful Sound – a large area of oil sheen from Archer Point to the hostel occurred when a diesel delivery hose fell out of the tank inlet during refilling. The spill was estimated to be 10–15 litres.
- Charlie Cat sinking near Seymour Island, Doubtful Sound – the spill size is unknown, although there was 800–1000 litres onboard. It was very windy at the time of sinking.
- Freshwater Basin, Milford Sound – a small (20 square metre) hydraulic oil spill occurred during the connection of hoses, an activity related to construction work on the breakwater.
- Freshwater Basin, Milford Sound – a hydraulic hose blew on an excavator, creating a 200 square metre slick.
- KCee sinking west of Secretary Island, Doubtful Sound – an unknown quantity of diesel spilled. While no spill was sighted in the rough weather at the time, one would have occurred.

## Resource consents

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

This year the Guardians were asked to provide input on the following consent applications:

- Real Journeys – consent application for back country trips in Fiordland, using the vessel Haereroa, granted in November 2011 after public notification.
- Southern Discoveries – renewal of consent for the underwater observatory in Milford Sound.
- Milford Sound Development Authority – application for consent to offset the breakwater at Freshwater Basin, Milford Sound. The consent was granted and the works are under way.
- Dive Queenstown – to operate a dive boat in Milford. The consent was granted in March 2012.
- Wilson et al – to occupy the coastal marine area with a mooring breastline at Deep Cove. This consent is on hold subject to Coastal Plan changes.
- South West Helicopters – to moor a barge in Preservation Inlet near Kisbee Lodge. On hold awaiting further approval.
- Island Escape Cruises – mooring and operations in Fiordland. Currently on hold awaiting further information.
- Deep Cove Outdoor Education Trust – to build a groyne structure to provide shelter for small boats. The consent was granted retrospectively.

## Moorings and anchorage areas

The investigation into cruise ship anchoring sites in Fiordland continued in 2011/12. Suitable anchoring areas had been identified by a senior Fiordland pilot, and this information was used for the next stages 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.

The substrate evaluation was carried out using NIWA side-scan sonar equipment, on board the DOC vessel Southern Winds. The side-scan survey was followed in February 2012 with a ROV survey to confirm the link between substrate and sensitive organisms. The information from these surveys was then used to determine locations where cruise ships may safely anchor, while minimising disturbance to sensitive organisms. The area around Seymour Island in Doubtful Sound was particularly noted as an area requiring further protection.

These surveys were assisted directly by Fiordland Marine Guardian, Mark Peychers, who provided advice at sea, and when the information was analysed.

## Looking ahead

Environment Southland will continue to work with the Guardians and the management agencies to provide a local perspective in managing the coastal waters of the FMA, supporting the Guardians in the areas mentioned previously.

## Appendix 4: Guardians' biographies

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### 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 the then Ministry of Fisheries. 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 more than 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, MPI 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:**



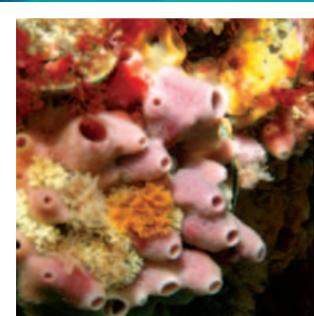
DOC's Fiordland National Park Visitor Centre  
Lakefront Drive, Te Anau, phone: 03 249 7924,  
email: [fiordlandvc@doc.govt.nz](mailto:fiordlandvc@doc.govt.nz)

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



Or online at [www.fmg.org.nz](http://www.fmg.org.nz)





**Fiordland  
Marine Guardians**  
Beneath the Reflections

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