

May 2011

The Guardians Newsletter

The Fiordland Marine Guardians are an advisory committee who work with government agencies and their Ministers on the management of the Fiordland marine area. They welcome this chance to keep you informed and up to date with happenings in the Fiordland Marine Area.



The Clipper Odyssey in Doubtful Sound.

Balancing ecology and safety For cruise ship anchoring

Visits by cruise ships to Fiordland are controlled by Environment Southland through the Cruise Ship Deed of Agreement. This Deed allows these ships to cruise only in defined areas in Milford Sound, parts of Doubtful, Thompson, Breaksea and Dusky Sounds, as well as the Acheron Passage.

Cruise ships coming to Fiordland vary in size from 1,000 to 120,000 gross tonnage (GT) – generally the larger ships (over 20,000 GT) simply pass through the fiords, without stopping, so passengers can admire the scenery, albeit briefly. Smaller ships spend longer periods in the fiords, anchoring to undertake additional pursuits such as kayaking, or shore excursions, and, at times, anchor for safety reasons too.

The anchors and chains of these ships are large and heavy, and have the potential to do significant damage to underlying ecosystems, so there is a clear need to permit anchoring only in designated areas that are suitable; in other words, areas that are sheltered, clear of navigation obstacles, and do not support sensitive marine habitats or species.

Environment Southland contracted Fiordland Pilot John Henderson to evaluate the anchorages recommended for cruise ships in the Deed, as part of a study to determine how best to allow ships to safely anchor, without undue disturbance to sensitive areas. Captain Henderson listed anchorages that would be suitable for cruise ships, based, in many cases, on his own experiences with ships of various sizes.

To follow up this evaluation Environment Southland and NIWA has recently undertaken a joint survey, using the Department of Conservation vessel *Southern Winds*, to map some of the areas identified in John Henderson's report as potentially suitable for cruise ship anchoring. Guardian Mark Peychers was on this trip to advise on sensitive areas.

The survey used specialised equipment, called side-scan sonar, to map areas of the sea floor at locations in several fiords.

ES staff members Greg Larkin and Walter Denley deploying the side scan sonar.





NIWA Technical Officer Dan Cairney setting up the sonar display in the wheelhouse of Southern Winds

High frequency sound waves from the side-scan sonar are received by computers on the vessel and displayed as images that differentiate between mud, sand, gravel and rocks.

The types of images collected by the side-scan sonar in Pickersgill Harbour, Dusky Sound, are shown at right.



Figure 1. Side-scan sonar tracks, each 60 m wide

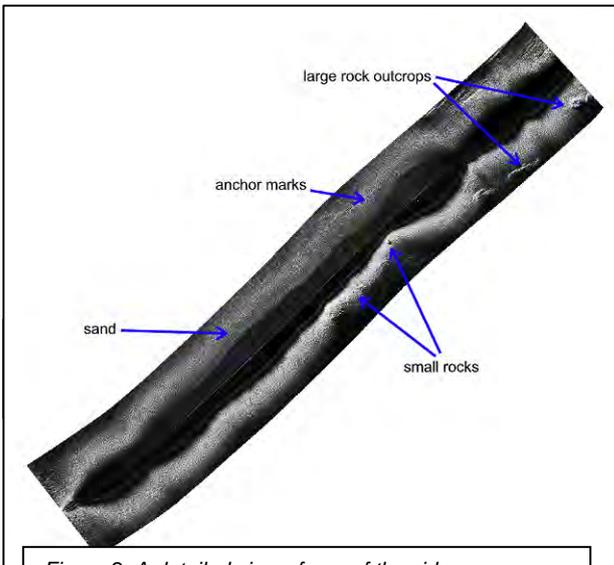


Figure 2. A detailed view of one of the side-scan sonar tracks. This represents an area of sea floor 350m long by 60m wide.

Although the sonar scans have now been completed, showing us what the bottom substrate is, further analysis will be required to identify those areas which may not be suitable for anchoring, because of sensitive habitat associated with different substrates, as well as areas that have substrate suitable to be used to anchor cruise ships of various sizes.

Kevin O'Sullivan ES and Ken Grange Guardian

The Ministers Review

The Fiordland (Te Moana o Atawhenua) Marine Management Act was enacted in 2005 and was a result of the work done by local stakeholders keen to see the area maintained or enhanced for future generations to enjoy. The Fiordland Marine Guardians role under the Act is to work with the various government agencies that have responsibilities in the Fiordland Marine Area, and offer advice and recommendations about management. The Act also required that a ministerial review be undertaken after 5 years, to gauge the effectiveness of the management of the area. The Ministry for the Environment contracted an independent consultant to undertake this review which was carried out between April and October 2010.

Findings of the Review:

The review has found that the integrated management model for the Area has proved highly effective over the past five years. As such, no significant changes are proposed to the current management model.

The Fiordland Marine Guardians have been effective in fulfilling their mandated functions and have achieved good community understanding, awareness and support for their role. They have strong relationships with the management agencies (Ministry for the Environment, Ministry of Fisheries, MAF Biosecurity NZ, Department of Conservation and Environment Southland-the local Regional Council) and with Ministers.

One component of the review was evaluating the unique marine management measures put in place under the Act (i.e. unique fisheries regulations, establishment of marine reserves, changes to the Southland Regional Coastal Plan). As only five years has passed since the Area was established, insufficient data was available to conclude on the effectiveness of these measures.

The review identified little in the way of shortcomings, with recommendations focussing on strategic planning to aid in the coordination of work programmes, succession planning for future membership needs, and greater dissemination of the findings of research undertaken in the Area.

The full report from the Ministerial Review can be downloaded from the Guardians website. www.fmg.org.nz

Jacqui Yeates, MfE, Wellington

Annual Meeting with the Minister

The Guardians travelled to Wellington in March to meet with the Minister for the Environment the Hon Dr Nick Smith and to discuss the findings of the Ministerial review. The Minister congratulated the Guardians on the work they have done and expressed his approval of the management model which has been so successful that he would like to

see it replicated with other organisations around the country.

Alison O'Sullivan, Secretary, FMG



The Guardians meet with the Minister for the Environment Hon Dr Nick Smith. From left Jerry Excell, Mark Peychers, Malcolm Lawson, The Minister, Anne McDermott, Ken Grange, Sir Alan Mark, Stewart Bull and Alan Key.

Marine Mammal Sightings in Fiordland

When heading into Fiordland there is always the chance of seeing a marine mammal - regardless of how far you travel. Sightings are common of New Zealand fur seals and bottlenose dolphins from the more visited fiords such as Milford, Doubtful, and Dusky Sound, but there is always a chance that something slightly more unusual will turn up here too. A number of large whales such as Humpbacks and Southern Right Whales spend time on the coast and in the fiords, as do their more elusive cousins the beaked whales. Dolphins, ranging from the largest in the form of Orca, to some of the smaller species like Dusky and Common dolphins, are also possible to see.

Summary of Sightings for 2010

A number of significant sightings of marine mammals up and down the coast were reported to the Department in 2010.

Late summer saw the return of one of the least known species of beaked whale to the Doubtful Sound area. A pod of Arnoux's beaked whales was seen in February of 2010, almost exactly a year after they spent a week in the same area in 2009. Very little is known about these animals worldwide and so it is exciting to know they frequent the Fiordland coast.



Arnoux's beaked whales in Fiordland, Photograph supplied by Richard Kinsey, DOC Te Anau



Another visitor that returned to the fiords was a Southern Elephant seal. This individual spent a lot of time 'hanging out' in Preservation Inlet. It is unknown if it is the same individual as in 2009, but the wardens at Kisbee lodge reported he was around for a number of weeks before finally heading away. The sheer size of this species of seal is really something to behold.

Southern Elephant Seal, Photograph Richard Kinsey, DOC, Te Anau

Other interesting sightings include a pod of Orca that was seen in the southern fiords around Chalky Inlet and then the following day offshore of Milford Sound. It's amazing just how fast these animals can travel!

The winter season saw a few sightings of humpback whales and some southern right whales, which appear to be coming back to the New Zealand mainland in ever-increasing numbers.

Martins Bay was a hotspot for creatures both alive and dead last year. A small pilot whale and a porbeagle shark were found washed up on the beach, while a number of large pods of bottlenose dolphins were seen in Lake McKerrow.

Richard Kinsey, DOC, Te Anau

Have you seen any interesting marine mammals in Fiordland?

The vast majority of sightings reported to DOC come from the general public and are really valuable in being able to build a picture of the fiords. This is especially true in the lesser travelled fiords such as Chalky and Preservation Inlet and the northern fiords. If you happen to see any interesting species on the coast, we would love to hear about them. If you have some clear photographs to accompany them, that is even better and could feed in to a number of International studies.

The most important species for DOC to hear about, now that we are heading in to the winter months, are southern right whales/Tohora. We would love to know about any animals that you see on the coast as soon as possible so that we can try to take identification photographs to track their movements.

Other than southern right whales, any news is good news from our point of view. If you see anything, please contact Richard Kinsey (rkinsey@doc.govt.nz) or Kath Blakemore (kblakemore@doc.govt.nz) at the DOC office in Te Anau (03 2490200).

Update on Guardians Review of the Rules concerning the FMA

A big thank you to everyone that attended the public meetings associated with the Guardians Review of the Rules, and thank you also for those who took the time to enter submissions.

The submissions are currently being reviewed and will be considered by the Guardians before they make recommendations to the relevant government agencies. Look for updates in future newsletters.

Thank you also for your very positive comments concerning the management of the area which are much appreciated.

Alison O'Sullivan, Secretary, FMG



Progress on pest seaweed response in Breaksea Sound

It has now been over 12 months since the pest seaweed *Undaria* was first found in Fiordland and progress over that time suggests that successful elimination of the pest from Breaksea Sound is still achievable.

A temporary setback in the programme occurred with the find of 6 plants over the summer months that had become reproductively mature, and subsequently released spores into the surrounding area. These plants were found in an area of very dense native seaweed and it is likely they were missed due to the difficulty in finding the plants in these areas.

In total over the past year, 832 plants have been removed from the small area of Sunday Cove, however over 600 of these were found in two distinct episodes where you would expect to see the new seasons growth.

Staff from ES, MAF, and DOC involved with the program are exploring some different approaches to increase the likelihood of eradication success. A small biocontrol trial was carried out in April utilising the highly effective grazing behaviour of a mob of kina to both clear a small area of native algae (to make searching easier) and to simultaneously graze on the invisible stages of *Undaria*, which are very difficult to control.

While working on the response to this incursion, the three agencies and the Guardians have also been brainstorming some new ideas for minimising the risk of another marine pest being transported to the Fiordland Marine Area. Watch this space!

Kath Blakemore, DOC, Te Anau

Help Protect Fiordland

The introduction of unwanted marine pest species to pristine environments such as Fiordland has the potential to cause irreparable harm to biodiversity and the beauty of these regions. It is everyone's responsibility to reduce the risk of introducing marine pests into this iconic natural environment. When taking marine gear and equipment (e.g. fishing, diving gear, nets, pots, ropes, anchors) and non-moored craft (e.g. kayaks) and other equipment into Fiordland, remember to follow these simple steps:

Check – Check for and remove any living or dead marine growth from equipment prior to arriving in Fiordland.

Clean – Clean canoes/kayaks, snorkeling/dive gear, fishing/boat equipment prior to arriving in Fiordland (see table for guidance on treatment methods).

When cleaning equipment (as per guidelines on next page), we recommend that you:

- Remove any visible marine organisms and dispose of them appropriately on land.
- Remember to also clean equipment having no visible marine organisms present – microscopic life stages of organisms can be on equipment, in seawater trapped inside kayaks, boats, or within ropes or nets and dive equipment.
- Follow correct handling precautions when diluting cleaning chemicals from concentrated solutions. Ensure there is adequate ventilation and, where possible, use protective gloves and appropriate eye wear.
- Where possible, use hot water ($\geq 40^{\circ}\text{C}$) to make up a treatment solution, as this dramatically increases its effectiveness. A good rule of thumb is to use water that is hot enough to submerge your hand in without significant discomfort.
- Dispose of cleaning solutions well above the high tide mark and away from streams and rivers.
- Where possible, completely dry equipment following cleaning. Some marine organisms can survive days exposed to air, so the longer equipment is dried the more effective any cleaning measures will be.



Undaria on mooring rope in Sunday Cove. Photo: K. Blakemore, DOC

Cleaning Guidance

Provided on the following page are a range of cleaning options to minimise the risk of transferring marine pests associated with canoes/kayaks, snorkeling/diving gear and fishing/boat equipment (e.g. nets, pots, anchors, ropes).

Choose the best treatment option for your item/s, taking into consideration:

- **time available** (e.g. air exposure can take up to 1 month),
- **access to treatment chemicals**,
- **size and amenability of the item/s to the treatment methods** (e.g. a kayak may be too big to soak so spraying or air exposure is likely to be a better approach),
- **sensitivity of equipment**.

SOAK	SPRAY/WASH	DRY
<p>Soak the item/s as per one of the methods below:</p> <ul style="list-style-type: none"> • Freshwater for at least 72 hours. If soaking ropes, freshwater should be replaced after 12 hours. • Hot water ($\geq 40^{\circ}\text{C}$) for 20 minutes. Temperatures exceeding 48°C should not be used on dive equipment as certain temperature-sensitive gear may be damaged. • 5% Palmolive dishwashing detergent/freshwater solution for 60 minutes. (5% solution = 500 mls of detergent into 10 litres of freshwater). • 1% Dettol antiseptic/ freshwater solution for 60 minutes. (1% solution = 100 mls of dettol into 10 litres of freshwater). • 2% bleach/freshwater solution for 30 minutes * (2% solution = 200 mls of bleach into 10 litres of freshwater). • 2% Decon 90TM/freshwater solution for 30 minutes. • 5% acetic acid/ freshwater solution OR undiluted household vinegar for 10 minutes * (5% solution = 500 mls of acetic acid into 10 litres of freshwater). <p>Palmolive dishwashing detergent, Dettol, bleach and vinegar can be readily purchased from most supermarkets and service stations.</p> <p>*Not recommended for dive gear as it may compromise the integrity of some plastics.</p>	<p>For items too large or difficult to soak, spray the item/s as per one of the methods below:</p> <ul style="list-style-type: none"> • 1% Dettol antiseptic/ freshwater solution and leave for 60 minutes. • 5% acetic acid/ freshwater solution OR undiluted household vinegar and leave for 10 minutes <p>When spraying an item, ensure you generously cover all surfaces.</p> <p>Handheld sprayers can be readily purchased at a hardware store, or in the gardening department of supermarkets and other department stores.</p>	<p>For an item where chemical/ freshwater treatment is not feasible, remove from water and thoroughly air dry for 1 month.</p> <p>Care is needed to ensure that the item is laid out in a manner that ensures all surfaces are completely dried.</p> <p>Prolonged air exposure is also an ideal complementary treatment for any item/s that has been soaked or sprayed.</p>

For further information on marine pests Contact:

Environment Southland your local Regional Council, or visit the MAF website at <http://www.biosecurity.govt.nz/pests/surv-mgmt/mgmt-partnerships/fiordland>

The above information was developed by the Cawthron Institute through MAF project 11815 'Assessment of the effects of household cleaners for the treatment of marine pests'. The full report is available from <http://www.biosecurity.govt.nz/about-us/our-publications/technical-papers>

Adjustment to Rock Lobster Catch Limits

The Minister of Fisheries recently approved a small adjustment to the catch limits for the CRA8 rock lobster quota management area for the new fishing year beginning on April 1st. The majority of the CRA8 commercial catch is taken from the Fiordland Marine Area.

	2010/11	2011/12
Total Allowable Catch (TAC)	1110 tonnes	1053 tonnes
Total Allowable Commercial Catch (TACC)	1019 tonnes	962 tonnes
Customary Allowance	30 tonnes	30 tonnes
Recreational Allowance	33 tonnes	33 tonnes
Other Sources of Mortality	28 tonnes	28 tonnes

The reduction is not a response to any sustainability concern; rather it is the outcome from the conservative management regime that the commercial industry has promoted for the CRA8 area. All of the reduction to the Total Allowable Catch is made from the Total Allowable Commercial Catch. Non-commercial allowances are unchanged.

Malcolm Lawson, Chairman, Fiordland Marine Guardians

Fiordland Marine Area Compliance

Two recent patrols of the Fiordland Marine Area revealed high levels of voluntary compliance by both recreational and commercial users. MFish Field Operations Manager, Southland, Reece Murphy said the absence of any serious offending and the continuing improvement in fisher behavior was most pleasing, reinforcing the view that the locally developed management rules were both accepted and well supported.



Royal NZ Navy Inshore Patrol Vessel HMNZS TAUPO on a recent Agency patrol deployment to Fiordland. Photograph supplied by MFish

Earlier in April local Fishery Officers along with a NZ Customs Officer were deployed on HMNZS TAUPO patrolling southern waters including Stewart Island, Foveaux Strait and Fiordland. The Fiordland 5-day patrol leg was a first and undoubted highlight for many of the TAUPO's officers and crew. One of four new 55-metre length Inshore Patrol Vessels (IPVs) the TAUPO has a crew of around 20 naval personnel and capacity to host several Government Agency personnel, including Customs, Police, MFish and DOC. This was the first dedicated occasion one of the new IPVs had been specifically tasked to patrol the fiords. Boarding operations are performed efficiently using the new J3 Rigid Hull Inflatable Boats that are quickly deployed using a davit system while the vessel is still under way.

In late April compliance officers from the Department of Conservation, MFish, Environment Southland and a MAF marine pest advisor took part in another successful Joint-Agency patrol utilising the DOC GV SOUTHERN WINDS monitoring recreational and commercial user behavior. While acceptance of the Fiordland marine management rules are high amongst local operators, officers still occasionally come across visiting boaties who are uninformed or vague on the areas recreational fishing rules, extent of marine reserves and bio-security awareness.

During the patrol the SOUTHERN WINDS rendered immediate assistance to a local syndicate vessel that was fast taking on water after striking a rock, with all agency staff pitching in. DOC Skipper Peter Young was instrumental in the calm assessment, sorting out pumps and directing the plugging of three small holes, while agency staff kept pace in bailing out the flooded bilge compartments, much to the relief of the two families on board.

Reece Murphy, MFish, Invercargill



User Guide sales on the high seas – Jennie Brunton MAF Marine Pest Advisor successfully clinches another User Guide sale to a visiting yachting couple from Holland who were cruising the fiords. Photograph supplied by MFish

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