

July 2010

## *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.

# Pest Seaweed (Undaria) Discovered and Confined

Further specimens of the introduced Japanese kelp *Undaria pinnatifida* (Undaria) have been found in the remote Sunday Cove, Breaksea Sound in Fiordland.

Undaria is a fast-growing seaweed that can spread rapidly, displacing native species, and having major impacts on marine ecosystems. It could have devastating impacts on the precious Fiordland Marine Area.



One of the mooring lines in Sunday Cove illustrates the invasive nature of Undaria.  
*Photograph courtesy of MAFBNZ.*

In April, a solitary mature plant was found on a barge mooring rope and during a recent follow up survey of Sunday Cove further specimens were found on the barge ropes and on the seafloor nearby.

“However it was pleasing to hear that no plants were mature,” says Guardians Chairman Malcolm Lawson.

Mr Lawson says everyone involved is heartened that although further plants were found in Sunday Cove, a search of other frequently used areas, including anchorages, moorings and habitat in Breaksea, Dagg and Dusky Sounds, did not reveal any further plants.

During the survey, all plants found were removed and granulated chlorine was applied to the infested area of the seabed and covered with a tarpaulin in an effort to destroy plants there.

“The discovery of undaria in Fiordland is hugely disappointing but it is great to see action is being taken by Environment Southland, MAF Biosecurity New Zealand, and the Department of Conservation to determine the extent of the infestation. Options to control the weed in Fiordland are now being considered,” Malcolm Lawson says.

“Fiordland has a special and unique marine environment and a lot of effort by various agencies has gone into protecting the area from the introduction of marine pest species.

“This find reinforces the need for everyone entering the Fiordland Marine Area to take care not to introduce or spread marine pests. It is vital that the owners and operators of boats entering Fiordland ensure their vessel hulls are clean and thoroughly antifouled, and that all marine equipment such as ropes, mooring lines, pots, buoys, fishing and dive gear are clean and dry.”

Environment Southland, MAF Biosecurity New Zealand and the Department of Conservation are now considering future management options.

Jennie Brunton, MAFBNZ, Wellington

**In the meantime, vessel operators are advised to avoid using Sunday Cove unless it is absolutely essential.**

# The first glimpses of another world!

An account of Deep Reef Research in The Fiordland Marine Area

We have known about the unique marine environments in the fiords since our first dives in the mid 1970s. Anyone who has dived down one of the steep rock walls must have wondered what lives below safe diving limits. Until now, we have had only two opportunities to survey the deep reefs. The first was a short manned submersible dive with the Jacques Cousteau team to a depth of 110 m in Dusky Sound in 1987, and the second was during the filming of a TVNZ documentary that used a Remote-operated Vehicle to film to depths of around 200 m in Milford Sound in 1988.

As part of the biological monitoring programme, DOC contracted NIWA in 2009 to explore the deeper reefs of the fiords, below diving depths. We used two methods to sample the animals of the deep reefs, a small Remote-operated Vehicle (ROV) equipped with video camera and laser beams to measure the sizes of species, and a

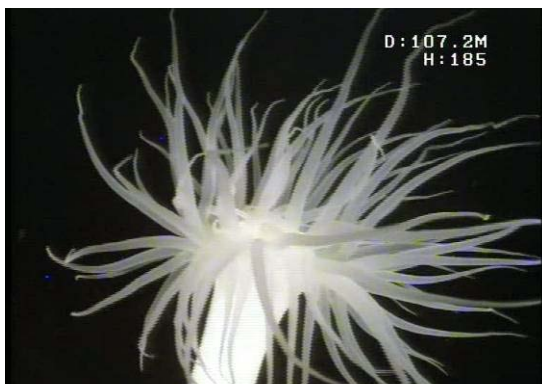


*Feather Seapen – newly discovered.*  
Photograph from Deep Water Video courtesy of NIWA

Baited Underwater Video

(BUV) system to record fish attracted to bait. The ROV dives were to 140 m, while the BUV sampled fishes to 200 m depth, in both Dusky and Doubtful Sounds.

Below that depth the reefs and rock walls supported a variety of tube worms, sponges and stony corals, most of which have never been seen before. In fact, of 145 different types of animals we recorded on video, over 56% could not be identified even by expert biologists.



*White Anemone – newly discovered*  
Photograph from Deep Water Video courtesy of NIWA

We even discovered a new species of fish, which is coloured yellow, green, and red, and we have dubbed the traffic light fish.

The BUV recorded 22 different species of fish, most commonly hagfish, groper, 7-gill sharks, spiny dogfish, blue cod, sea perch, and scarlet wrasse.

It is clear that more discoveries will be found as we extend our sampling. It's quite possible we have still only begun to scratch the surface of the unique marine biodiversity of the NZ fiords.

*Ken Grange, NIWA, and Fiordland Marine Guardian*



The Traffic Light Fish – newly discovered  
*Photograph from Deep Water Video courtesy of NIWA*

## It's Whale Spotting Time Again - Keep those cameras at the ready!

It's that time of year again where Southern Right whales, one of the largest animals in the ocean migrate past our shores. The first animals of the season have already been spotted up in Hawkes Bay so it won't be long before they hopefully start to turn up around the Fiordland coast. Last year animals were seen right through until December.

DOC would really appreciate any one who spots a southern right whale(s) to let them know as soon as possible. If you could provide them with as much information as you can relating to where you saw the animal (s), what time, how many there were and what they were doing. This will really help to continue building up a picture of what the species is up to. Last year we had some amazing photographs taken too that help to determine if an animal has ever been seen before and if so, where it has been spotted.

The sightings also help support the Otago University research programme which is looking into photo identification and habitat use of Southern Right Whales around New Zealand waters.



*Southern Right Whale – Photo courtesy of DOC*

The number of whales that were sighted around the mainland doubled between 2008 and 2009 and much of that was down to the help that the Department has received from people like you.

Laura Boren who runs the marine mammal program for DOC in Wellington commented that “The research is important as it helps us to track the recovery of the southern right whale population and to better understand the relationship between the whales seen around the mainland and those from the New Zealand sub Antarctic region”.

From data analysed so far by scientists at the University of Auckland, there have been three matches between the mainland and sub Antarctic whales. The continuation of this research will enable the Department to take measures to ensure the whales have the right level of protection.



*Southern Right Whale – photo courtesy of DOC*

The best way that you can all help is to report sightings and take photographs if possible. The best pictures from an identification point of view are of the individual whale's callosity patterns). Callosities are callus-like patches of skin that grow in a similar place on a whales head to where a man's beard and moustache would grow. These callosities are the light coloured patches on the top and sides of the whales head and are actually made white by the large groups of cyamids (sea lice) that feed on the skin there - rather than the skin itself being white. Isn't it amazing to think that the whales are home to more than three different species of lice that all feed on different parts of a whales anatomy!!!!

Just be aware that the Marine Mammal Protection Regulations only allow vessels to approach to within 50 metres of any whale species, but that should still be close enough for some good shots – happy snapping.

**Report any sightings to the DOC hotline – 0800 DOCHOT (0800 36 24 68) or to Department of Conservation Te Anau Office on 03 2490200**

Thank you all in advance for any sightings that you manage to get this season. Remember the sooner you can get them to DOC the better, that way they can take action to get the most information possible from the sighting.

*Alison O'Sullivan from information received from Richard Kinsey, Department of Conservation, Te Anau.*

# Ministerial review of Fiordland Marine Area Management

Under the Fiordland (Te Moana o Atawhenua) Marine Management Act, the Minister for the Environment is required to review the effectiveness of management of the Fiordland Marine Area five years after the Act was passed. This anniversary passed in April, so the review is currently underway.

The review is based upon interviews with the Guardians, management agencies and a wide range of users of the Area to gather feedback on how well the management of the Area is achieving the aims of the Act.

A number of people have contributed to the review and your input is much appreciated. We look forward to sharing the results with you later in the year.

*Michaela Simms, Ministry for the Environment, Wellington*

# Meridian Energy Limited Granted Consent

Meridian Energy Limited applied for resource consents to permit an increase in the discharge of water up to a maximum of 550 cumecs (from 510 cumecs) into Deep Cove, Doubtful Sound last year. The reason for the application was that Meridian Energy Ltd wants to be able to take advantage of periods when the water level is high in Lake Manapouri due to weather events. A total of 31 submissions were lodged with Environment Southland after the application was publicly notified. The application went through a pre-hearing stage and was finally heard by the Environment Southland Consents Committee in September 2009.

The Fiordland Marine Guardians made submission on 3 areas of concern that they wanted the Hearing Panel to consider:

1. Biological effects on the marine environment – they had a concern that the Doubtful Sound ecosystem may reach a “tipping point” and that monitoring will only determine that it has occurred after the fact. They pointed out that fishermen have observed effects on rock lobster catches that have been attributed to freshwater adjacent to Bauza Island and the Gut, and are concerned that increased discharge from the tail race will push this effect out further.
2. Effects on the bottlenose dolphin population - The Guardians pointed out that there has been a worrying decline in the population since 2002 however felt that this was probably due to a number of factors rather than a single cause. They concluded that it was difficult to determine whether the changes caused by the second tailrace tunnel had made an impact on the dolphin population, however the uncertainty is there, and a precautionary approach in regard to any potential threat to the dolphins should be taken.
3. Effects on other users, particularly kayakers – with the increased discharge there are currents and eddies created within Deep Cove and Doubtful Sound which could impact on others to an extent that increases health and safety risks and could have negative effects on commercial businesses as well as impact the experience of people visiting the area.

Environment Southland has recently released the decision of the Hearing Panel on the application. The Hearing Panel identified that the effects on the bottlenose dolphin population and also the effects on other users were among five particular elements that required consideration in relation to potential adverse effects when deciding on the outcome of the application. They accepted that the environmental impact of the extra discharge would have effects that were minor, or less than minor, and that due to the physically dynamic nature of Doubtful Sound and the associated weather conditions that the impact of the weather would mask the effects of the increased discharge.

The consent has been granted for 21 years as have associated consents relating to water levels in Lake Manapouri and the Waiau River with conditions attached.



Consent conditions relating to the concerns of the Guardians and others include:

- That Meridian Energy Limited establish a multi party bottlenose dolphin monitoring and research programme;
- That Meridian Energy Limited erect warning signage in the Deep Cove area and implement an alarm system to provide warnings of discharge changes; and

- That Meridian Energy Limited implements an environmental monitoring programme including Deep Cove and Doubtful Sound.

The Guardians are satisfied that the Hearing Panel did take note and consider their submission and acknowledged the concerns that they and others raised in their consideration of the application.

*Malcolm Lawson, Chairman, Fiordland Marine Guardians*



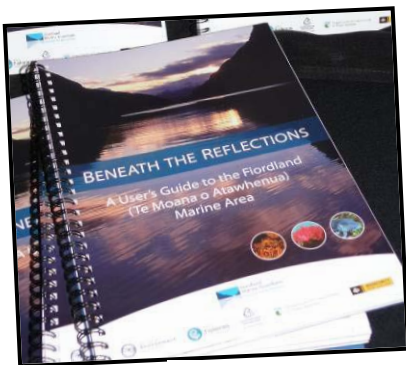
## Guardians at Large!

Alan Key (Guardian) has recently returned from Christchurch where the Fiordland Marine Guardians material was exhibited along with The Ministry of Fisheries information at the Christchurch Boat Show. By all accounts the exhibition was successful with many people interested in the 'User **Guide to the Fiordland Marine Area**'.

Be sure to keep an eye out at the Otago Boat Show as some of the Fiordland Marine Guardians will be there. They would welcome your comments and views on The Fiordland Marine Area and will have copies of The User Guide available for sale at their stand.

## Prefer an Electronic Copy?

If you would prefer an electronic copy of newsletters in the future could you please email Alison at [info@fmg.org.nz](mailto:info@fmg.org.nz)



## 'Beneath the Reflections' - A Users Guide to the Fiordland Marine Area.

The Department of Conservation report that they still have stock available of the User Guide at their Visitor Centre in Te Anau, as well as at their Haast and Invercargill Offices. Order forms are also available on the Guardians website: [www.fmg.org.nz](http://www.fmg.org.nz)

The Fiordland Marine Guardians have produced this book with the assistance of The Ministry for the Environment, The Ministry of Fisheries, Ministry of Forestry - Biosecurity New Zealand, The Department of Conservation, and Environment Southland with the aim that it should be a "one stop shop". The book has been heavily subsidised by the Government Agencies involved and retails for **only \$15.00**

The User Guide contains all the relevant information about the area both practical and informative, and is made from water-resistant paper which is an added attraction for those wanting to make use of all the practical information it contains whilst in the area. Along with the Guide comes the opportunity to register for free updates should there be any regulatory changes in the area, which will be posted to you for filing in the specially designed pocket in the back of the book. The Guardians hope is that everyone who is heading into the fiords will get a copy as it will enhance their visit.