



Annual Report **2020/21**



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Vision and purpose

The Fiordland Marine Guardians (the Guardians) were formally recognised in the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005.

Our vision is 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.

Our focus is the Fiordland (Te Moana o Atawhenua) Marine Area which extends from Awarua Point on the West Coast to Sandhill Point, Te Waewae Bay, and to 12 nautical miles offshore. However, we frequently address issues at a regional and national level if we believe they will have an impact on the Fiordland Marine Area.

We work closely with the agencies that have an interest in the Fiordland Marine Area, to enhance collaboration in the region and ensure our strategy is aligned. We also engage with the wider community to ensure our focus remains relevant and directed towards the future.

Our challenge is ensuring the values of Fiordland are protected as the area faces increasing pressure from competing interests and a changing physical environment.

Statement of responsibility

The Fiordland Marine Guardians are proud to present, in compliance with section 20(1) of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, the annual report for the Fiordland Marine Guardians for the year ended 30 June 2021.

Rebecca McLeod, PhD

Chairperson

Fiordland Marine Guardians

Chairperson's report

Tēnā koutou katoa

The pandemic and the country's response to it has brought many matters that have long been simmering in the Fiordland (Te Moana o Atawhenua) Marine Area (FMA) to a rapid boil. In some instances, our existing concerns have been heightened, while in others, there have been breakthroughs. Certainly, nothing has been predictable.

We were delighted in April when the Acting Conservation Minister Ayesha Verrall announced funding through Jobs for Nature – Mahi mō te Taiao for the *Undaria* Control Programme in Fiordland. For too long, the programme to contain *Undaria* in Te Puaitaha/Breaksea Sound had not been sufficiently resourced to succeed. The new programme involves locals being trained to become underwater biosecurity technicians, local operators servicing the work on the water, and many tonnes of the invasive kelp being removed from the Fiordland Marine Area. Containing *Undaria* in this way will buy time for technology to be developed that will provide for ongoing management, and hopefully eradication. We acknowledge the lead that Environment Southland has taken in this programme, in partnership with the Department of Conservation (DOC) and Biosecurity New Zealand.

The pause of international tourism and the increase in domestic tourism has highlighted risks to the natural wilderness values of the FMA. While Milford Sound/ Piopiotahi is uncharacteristically quiet, there is

heightened activity in the southern fiords. With each new vessel comes increased biosecurity risk, more pressure on limited anchorage space, higher demands on vulnerable fisheries, and an erosion of the wilderness values that ironically, people are flocking to these parts to experience. To ensure that Fiordland is maintained or improved for future generations to use and enjoy, the Guardians recognise that activity levels must be carefully managed and monitored. While each fiord is distinct, they are all interconnected environmentally, ecologically and by human movements. The Guardians are working to ensure that management plans for Fiordland are future focused and will stand the test of time.

We continue to work with Environment Southland on the revision of the Regional Coastal Plan, yet are concerned that the loss of revenue to the Council from cruise ship levies is slowing this critical piece of work. Our review of the sustainability of fisheries in the internal waters throughout Fiordland is almost complete, and we have been helped considerably by the large response to our fisheries sustainability survey. We believe the amateur fisheries regulations should be more closely aligned with the Guardians' philosophy of fishing for a feed, not to fill the freezer, and we will be presenting advice to this effect to the Minister of Oceans and Fisheries later this year. Should the Minister accept our recommendations, the public will get a chance to have a say during the official consultation round that follows.



On behalf of the Guardians, I would like to express our sincere thanks to the community of Fiordland for informing our mahi, and to the agencies for putting in place mechanisms that align with the strategic direction we've set. During this time of uncertainty, it is heartening to have a strong vision, set by the founding members of the Guardians, to keep us on track.

We have recently farewelled Guardians Jerry Excell and Jon Clow who have served the FMA well through their valuable contributions of local knowledge, expertise and community engagement. We wish them all the very best in their future endeavours and look forward to welcoming new members to the Guardians in the coming year.

Ngā mihi nui

Dr Rebecca McLeod
Chairperson



Working together for the good of Fiordland

The Guardians work closely with agencies with an interest in the Fiordland (Te Moana o Atawhenua) Marine Area to enhance collaboration in the region and align focus and strategy. Representatives from these agencies attend our meetings to report on progress and engage on matters of concern.

Sub-committees made up of Guardians and representatives from our partner agencies focus specifically on biosecurity, monitoring, compliance, communication and engagement with users, and progress matters outside the Guardians' main meetings. We also have a working group to coordinate our involvement in the review of the Regional Coastal Plan for Southland.

The working relationship between the Guardians, the Ministry for the Environment, Department of Conservation, Ministry for Primary Industries, and Environment Southland is outlined in a protocol. The purpose of the protocol is to facilitate and promote cooperation between the Guardians and agencies to manage the Fiordland (Te Moana o Atawhenua) Marine Area in an integrated way.

We acknowledge the relationship between Te Rūnanga o Ngāi Tahu, as tangata whenua, and Te Moana o Atawhenua. An expression of this special relationship is a requirement under the Act that one member of the Guardians is nominated by Te Rūnanga o Ngāi Tahu.

The Ministry for the Environment administers the Guardians and provides a budget to support our functions. Each of the other agencies contributes funding and resources to enable our vision to be realised.

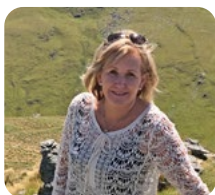
The Fiordland Marine Guardians



Dr Rebecca McLeod (Chairperson)

Guardian since 2012

Rebecca has chaired the Guardians since 2015. She is a marine scientist, specialising in southern marine ecosystems, has been involved with shaping New Zealand's Antarctic science programme, and sits on the Governance Board of the Centre for Research Excellence "Coastal People, Southern Skies" (University of Otago). Rebecca was working on her PhD in Fiordland when the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 was established. Her research informed the Fiordland strategy and she feels very honoured to be able to ensure the Guardians' vision for the area is realised. Rebecca is a keen diver and boatie and enjoys getting out on the water with her young family.



Ali Ballantine

Guardian since 2018

Ali's passion for and interest in Fiordland began when she moved to the area in the early 1980s. During her tenure as Environment Southland Chairperson and Councillor, she advocated for the formation of the Guardians and for the ongoing support and assistance the Council provides for them. Under her watch as Chairperson, biosecurity threats in Fiordland were prioritised, which resulted in the initiation of the Fiordland Marine Pathways Plan. Ali has been involved in wilding conifer issues in Southland and nationally for over 20 years, chairing the Mid Dome Wilding Trees Charitable Trust since its formation in 2007.



Jerry Excell

Guardian since 2007 (to 2021)

Jerry 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 23 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 has dived throughout the fiords as recreation since childhood, and uses his experience to help in research projects, collecting and providing data about the rock lobster fishery.



Jonathan Clow

Guardian since 2012 (to 2021)

Jonathan brings a wealth of maritime and management experience to the Guardians, having started out as a professional seafarer in the fishing industry, followed by 15 years with the Royal New Zealand Navy as a Seaman Officer, and then five years as the Marine Manager and Safe Ship Manager for Real Journeys Ltd in Te Anau. Most recently, Jon has undertaken a change in career moving into the software industry as a software developer but remains in Te Anau and attached to the Fiordland (Te Moana o Atawhenua) Marine Area.



Peter Young

Guardian since 2018

Pete has worked on boats since he was 15 years old. He lives in Te Anau and works in the fiords as a commercial fisher and skipper for charter vessels. He is also a very keen recreational fisher and hunter. For more than a decade, he crewed and subsequently skippered the DOC vessel *GV Southern Winds* where he was involved in marine research and monitoring programmes conducted throughout the Fiordland (Te Moana o Atawhenua) Marine Area. Pete was an original 'Guardian of Fiordland', contributing to the development of the Fiordland Marine Conservation Strategy. He was also one of the original instigators of the Fiordland Coastal Clean Up in 2003 that now manages the regular coastal clean ups of both Fiordland and Stewart Island/Rakiura.



Mark Peychers

Guardian since 1995

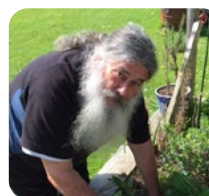
Mark was a commercial fisher for almost 30 years working throughout the Fiordland area. He is a shareholding director of the Fiordland Lobster Company. Mark has been a Guardian since the group began in 1995 and was involved in setting up Fiordland's first two marine reserves. Mark has built strong relationships with our partner agencies (Department of Conservation, Fisheries New Zealand and Environment Southland). He is actively involved with fisheries management in Fiordland and other parts of New Zealand. Mark is also a trustee of the Southern Coastal Charitable Trust, which manages the coastal clean ups of Fiordland and Stewart Island/Rakiura.



Dr Kerri-Anne Edge Hill

Guardian since 2015

Kerri-Anne has a background in science, including a PhD in Zoology (in seabird ecology), and works as a science communicator, knowledge broker, writer, and facilitator. This work often takes the form of supporting the restoration and sustainable use of wild and natural places and fostering a greater connection between people and nature. Kerri-Anne has been a resident of Te Anau for 18 years. She has spent much of that time contributing to projects within Fiordland National Park, including 10 years with the Fiordland Islands Restoration Programme for the Department of Conservation.



Stewart Bull

Guardian since 1995

Stewart has extensive knowledge of the customary uses of Fiordland, particularly customary fishing. He is the former chair of the Oraka-Aparima Rūnaka and the former Oraka-Aparima Rūnaka 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 Rūnaka representative on the Customary Fisheries Advisory Group and the Te Rūnanga o Ngāi Tahu representative to the Southland Conservation Board. Stewart has been a member of the Guardians of Fiordland since its inception and in 2018 was awarded a Queens Service Medal for his services to conservation and Māori.

Agency representatives

The Guardians acknowledge the dedication of our partner agencies to achieving our vision for the Fiordland Marine Area, specifically the efforts contributed by these representatives, who regularly attend our meetings.

Ali Meade

Biosecurity and Biodiversity Operations Manager
Environment Southland

Aurora Grant

Consents Manager
Environment Southland (to January 2021)

Bruce Halligan

Acting Consents Manager
Environment Southland (from January 2021)

Chloe Corne

Ranger Operations
Department of Conservation

Fiona Newlove

Manager, Mauri Moana – Marine Policy
Ministry for the Environment

George Gericke

Consents Officer
Environment Southland (from May 2021)

Glen McMurdo

Acting Compliance Manager
Environment Southland (from January 2021)

Haydee Wilton

Fiordland Marine Guardians Secretariat
Ministry for the Environment

Ian Coard

Deputy Regional Harbourmaster
Environment Southland (to March 2021)

Jen Geange

Senior Adviser, Pest Management Programmes
*Biosecurity New Zealand
Ministry for Primary Industries*

Lyndon Cleaver

Regional Harbourmaster/Maritime Officer
Environment Southland

Kathryn McLachlan

Policy Planner
Environment Southland

Mark Geytenbeek

Senior Fisheries Analyst – Inshore Fisheries Management
*Fisheries NZ
Ministry for Primary Industries*

Nadia Freeman

Team Manager, Pest Management Programmes
*Biosecurity New Zealand
Ministry for Primary Industries*

Richard Kinsey

Senior Ranger Operations
Department of Conservation

Robert Win

Marine Programme Leader
Environment Southland

Sorrel O'Connell-Milne

Coastal and Marine Environmental Scientist
Environment Southland (to May 2021)

Stephen Logie

District Team Leader – Southland
Ministry for Primary Industries

Tanith Robb

Senior Policy Planner
Environment Southland (to March 2021)

Tony Preston

Principal Ranger Biodiversity
Department of Conservation



Our year in review

July 2020 – Our annual strategy meeting, held over two days at Milford Sound/Piopiota, afforded an opportunity to experience the much-reduced levels of activity on and off the water due to the COVID-19 pandemic. We familiarised ourselves with a cruise of the Sound and a tour of the village's facilities to help aid our engagement with the Milford Opportunities Project (MOP). We discussed how to better manage the cumulative adverse effects from the increasing number and scope of commercial surface water activities, and how to promote better inter-agency management of *Undaria* incursions in the FMA.

Rebecca was re-elected as our chairperson for 2020/21.

August 2020 – The Guardians presented an urgent appeal to Minister for Biosecurity, Hon Damien O'Connor, for Government to fund the Fiordland *Undaria* programme inclusive of biomass removal in Te Puaiaha/Breaksea Sound.

We engaged with the Amateur Charter Vessel (ACV) operators regarding the new blue cod recreational fishing rules, *Undaria* control and a trial of electronic reporting. We shared the findings of the 2019 recreational fishing workshop and the 2020 ACV hui with the leaders of the four southern Papatipu Rūnaka prior to seeking engagement with the wider fishing community.

We provided feedback on Environment Southland's variation to the Cruise Ship Deed of Agreement.

September 2020 – We participated in regular meetings of the newly established Fiordland Working Group for the Jobs for Nature – Mahi mō te Taiao fund.

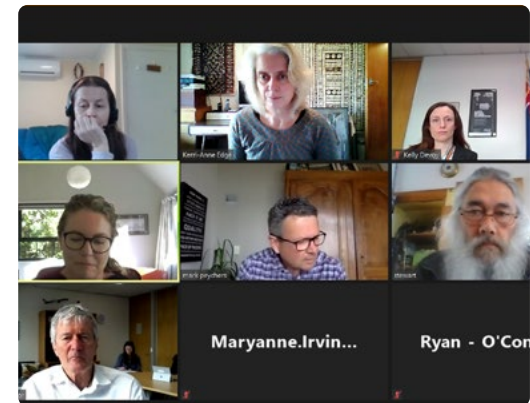
Our biannual newsletter Te Pānui Kaitiaki o Ata Whenua was issued.

October 2020 – The Guardians contributed to several reference group meetings for the Milford Opportunities Project.

Fish Mainland held their inaugural meeting in Christchurch. Stewart was appointed to the Board as the representative for Te Rūnanga o Ngāi Tahu. Former Guardian Alan Key (2005–2012) was appointed Regional Director, representing Southland and Stewart Island. Alan is a strong and well-respected advocate for recreational fishers in the south.

Rebecca appeared on an episode of the TV programme *Ocean Bounty*. She spoke about the Guardians' support for Fish Mainland, the value the group will bring to achieving sustainable fishing practices and how community-led approaches are essential to addressing complex issues such as marine management.

November 2020 – At our November meeting, Russell Halliday and Simon Moran updated the Guardians and partner agency representatives on the Milford Opportunities Project survey, which had over 500 responses. We were keen to ensure that the marine environment was taken into account by the MOP and emphasised that management changes in Milford Sound/Piopiota could have implications for the rest of Fiordland.



December 2020 – The Guardians participated in a national workshop coordinated by Biosecurity New Zealand, which focused on pathways management approaches to marine biosecurity. The Fiordland Regional Marine Pathways Plan was presented as an example of an effective pathways approach.

We published an article in *The Fishing Paper & Hunting News* on our work to investigate concerns about fisheries sustainability in the FMA, and our plans to carry out a survey to gather further feedback from recreational fishers.

January 2021 – Manaaki Whenua Landcare Research conducted a survey on behalf of the Guardians to seek feedback from fishers about the current state of fish stocks in Fiordland. We promoted the survey with a follow-up article in *The Fishing Paper & Hunting News*.

February 2021 – The Guardians met with Environment Southland councillors to raise concerns about the level of commercial surface water activity in Fiordland. We advocated for increased resourcing of marine biosecurity and compliance at a local and inter-regional pathways level and noted the urgent need to advance the Bluff vessel haulout facility to ensure it caters to biosecurity requirements.

At our February meeting, Vicky Froude from Eco-Logic NZ presented an outline of the work she was doing to support Environment Southland's review of their Coastal Plan. She spoke about the need to assess the cumulative adverse effects of the consented Surface Water Vessel carrying capacity of the Fiordland Marine Area against agreed baselines. Dr Will Rayment, University of Otago, presented the work of the Marine Mammal Research Group, and a recent study looking at the effectiveness of Fiordland's Marine Protected Areas in supporting sharks.

We formally thanked retiring Guardians Jon Clow and Jerry Excell for their respective 8 and 13 years' service.

April 2021 – We received the results from our February fisheries survey and met to review them alongside earlier findings and the available data, and start developing our advice for the Minister of Oceans and Fisheries. We were encouraged to hear that Fish Mainland received funding to develop an app for recreational reporting, which will provide much needed data to inform management in the future.

May 2021 – We submitted on Otago Regional Council's Long-term Plan, advocating for more resources to counter the growing biosecurity threat from increasing numbers of new marine pest species in southern waters. We noted that aligning Otago's Marine Pathways Plan, with those of their fellow regional councils in Southland and Canterbury would result in a more coordinated approach to marine biosecurity in the south.

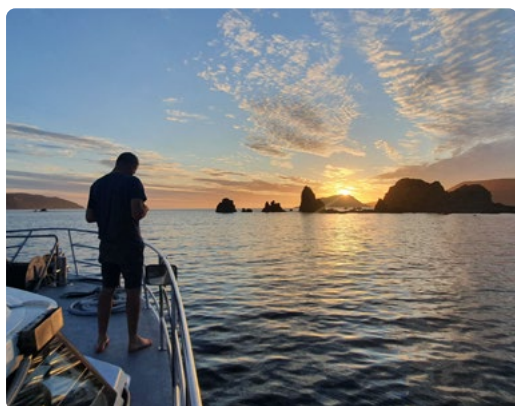
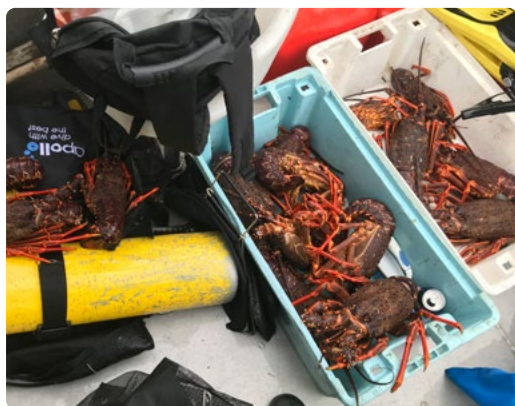
The Guardians participated in a workshop on the *Undaria* Control Programme with representatives from the agencies.

June 2021 – We submitted on Environment Southland's Long-term Plan to outline our concerns regarding the inability of their current Coastal Plan to manage the increasing and cumulative effects of permitted charter vessels in the FMA.

The Guardians submitted to Fisheries NZ regarding the review of sustainability measures for School Shark in Southland and the Sub-Antarctic (SCH5). We updated and reprinted our popular *Beneath the Reflections* User Guide to incorporate all the latest information on fishing regulations and *Undaria* exemption areas.







Our take on the biggest threats to the Fiordland Marine Area

A core function of the Guardians is to identify likely threats to the Fiordland (Te Moana o Atawhenua) Marine Area (FMA) and bring these to the attention of Ministers and management agencies. From inception, the Guardians have focused on providing local solutions for local problems, developing mitigations that draw on our knowledge of the FMA and expertise with the support of the agencies.

Several recent developments and the unforeseen consequences of the COVID-19 pandemic have prompted us to revisit these threats and their priority.

Unconstrained growth

While the pandemic has halted international tourism, domestic tourism within the FMA, particularly the remote southern fiords including Tamatea/Dusky Sound, is at an all-time high. It is excellent that New Zealanders are choosing to experience this exceptional place. The concern, however, is that increased vessel traffic puts pressure on already depleted fish stocks, threatens intrinsic and wilderness values, and carries real risks to navigational safety due to the limited number of safe anchorages.

The Southland Regional Coastal Plan is one way that certain activities, such as commercial tourism, can be regulated. Unfortunately, the current plan only has hard limits on activities within Doubtful Sound/Patea. New operations need to gain consent to operate, yet there are no limits currently defined for most of the FMA. To mitigate the threat that unconstrained growth poses to the FMA, the Guardians are supporting Environment

Southland in their current review of the Southland Regional Coastal Plan. We are also exercising powers as an affected party under the Resource Management Act to dampen the granting of new consents. Until the new Regional Coastal Plan is operative, we hold grave concerns about the uncontrolled expansion of visitor activities in the FMA.

Fisheries depletion

The fisheries management measures established in 2005 under the Act were considered sufficient to recover fish stocks and ensure sustainable fisheries management within the FMA for the foreseeable future. We believe these regulations are no longer fit for purpose. Despite what was once regarded by the Guardians as conservative daily bag limits and no-accumulation rules, signs of fisheries declining in the internal waters of the FMA strongly suggest that the amateur take of finfish and shellfish is unsustainable. Unfortunately, the lack of fisheries data relating specifically to recreational take has resulted in a less timely management response than we would have liked. The abundance of some species has

been reduced to very low levels, and we are failing in our vision to improve the fisheries for future generations. A workable solution requires meaningful and extensive consultation, and we remain committed to doing everything we can to achieving both.

We will present our advice and recommendations to the Minister of Oceans and Fisheries in late 2021 with the hope that he will instruct Fisheries New Zealand to begin the formal public consultation process required under the Fisheries Management Act. Our recommendations will be future focused in that they will serve to rebuild the fisheries to be robust enough to support the practice of fishing for a feed for many generations to come.

Establishment of invasive marine species

Marine biosecurity was, until recently, considered to be the greatest threat to the FMA, and the Guardians have long advocated for increased efforts in the prevention, monitoring, surveillance and control of marine pests in the FMA. Our advocacy and the hard work of the agencies has resulted in strengthened prevention (Fiordland Regional Marine Pest Pathways Plan) and control (*Undaria* Control Programme, 2021) mechanisms. National initiatives are also coming to fruition to complement these programmes, both at the border (Craft Risk Management Strategy) and nationwide (development of a national marine pest pathways strategy).

We are now focused on the longer-term response to *Undaria* control, beyond the two years currently funded. There is still much to be done in developing technology to undertake surveillance for new incursions across the FMA, and ensuring fit-for-purpose facilities are available in Bluff for vessel operators to comply with the rules of the Fiordland Pathways Plan. With all of this on our radar, we are providing input into the development of a

national pathways strategy, which will ultimately increase Fiordland's protection.

Significant oil spill

Although passage through the fiords is carefully managed to minimise the likelihood of a ship running aground, a significant oil spill in the FMA could cause an ecological catastrophe. The highest risk is from large vessels that carry heavy engine fuel oil, such as cruise ships. The remote nature of Fiordland and adverse weather and sea conditions would present significant response challenges for authorities to overcome.

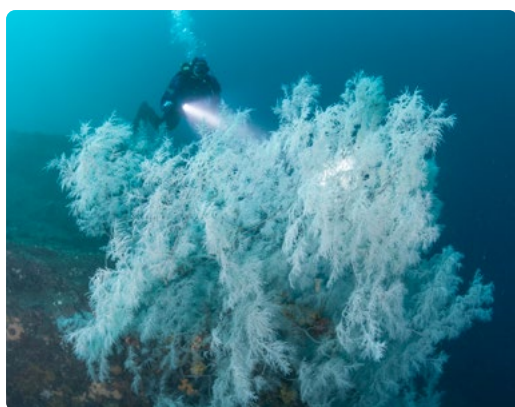
There are strict requirements for cruise ships entering the fiords to reduce the risk of accidents, defined in the Cruise Ship Deed of Agreement and Harbourmasters Directions. Mitigations include having passage plans and restricted speeds through the internal waters, compulsory pilotage, and limitations on vessel numbers.

Maritime NZ would manage any incident response, supported by regional council responders, using oil spill response equipment that is cached at depots throughout Southland.

Loss of research funding

Effective marine management requires a solid science base to inform decision making. The agencies have various areas of responsibility in the FMA, including funding research relating to those areas. For example, the Department of Conservation is responsible for the 10 marine reserves throughout Fiordland. The Guardians act as the advisors on the effectiveness of these important features and rely on DOC funding scientific monitoring of them.





Similarly, while the Guardians recommend fisheries regulations to the Minister of Oceans and Fisheries, the onus is on Fisheries New Zealand to conduct fisheries research to review their effectiveness.

The risk is that shifting priorities within agencies will result in critical research not being carried out and the Guardians providing advice on management decisions within an information vacuum and ultimately, weakening the effectiveness of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005.

Altered marine environment due to climate change

The Fiordland Marine Area is already experiencing the effects of climate change. At the more extreme end, we are experiencing marine heat waves and measuring consistent gradual increases in sea temperature. Warmer waters are causing fish species to move further southwards and ultimately, we should expect to see changes in the marine ecosystems. We will also experience sea-level rise, more extreme weather conditions, stronger westerlies, and ocean acidification.

While much of this is already in train, we know that intact marine ecosystems will be more resilient to rapid changes in the environment. That's one of the driving factors behind the Guardians' review of fisheries sustainability in the FMA.

Introduction of activities that degrade environment

There is a very high bar for new activities in the FMA – currently, aquaculture is prohibited under the Southland Regional Coastal Plan. However, sufficient political and commercial will could see the heralding in of new and potentially harmful activities like inshore salmon farming. In 2016, the Guardians became aware that Fiordland was being considered as a location for establishing aquaculture, specifically salmon farming in Taiari/Chalky and Rakituma/Preservation inlets. Based on the practices and technology in place at that time, the Guardians felt that salmon farming was inappropriate for the FMA.

For now, we regard this risk as low, but this could change in the future.

Loss of community support for the Guardians' approach

Integral to the Guardians' successful model is strong engagement with the community and support for the Guardians' vision. Support garnered through telling the story of the Guardians and the FMA and being connected across interest groups ultimately leads to high levels of compliance, as people understand our role and why the management provisions are in place. Losing this narrative would, in turn, pose biosecurity and fisheries threats. People need to see the Guardians as a trustworthy and helpful point-of-contact to raise observations or concerns about the management of the FMA.

With new generations coming into Fiordland and increasing numbers of visitors, we must continue sharing the story of the FMA and the Guardians.





Looking ahead – the next 12 months

We have identified several workstreams for the year ahead, building on the body of work carried out this year. These workstreams are central to maintaining the Guardian's vision: that the quality of Fiordland's marine environment and wider fishing experience is maintained or improved for future generations to use and enjoy. By mid-2022, we plan to accomplish the following.

Welcome two new Guardians: At a pivotal time in much of our work, we will take the time to ensure new members of the group are well supported and informed about key pieces of work. An essential aspect of reconfiguring as a group will be our planned visit to Tamatea/Dusky Sound in the new calendar year. Here we hope to observe the *Undaria* programme in full swing and fully assess risks in the FMA and plan our efforts to mitigate these.

Provide advice to the Minister of Oceans and Fisheries regarding the sustainability of fisheries in the FMA:

We will present our assessment of the problem, namely serial depletion of fish species within the internal waters of the FMA, and our proposed road map to halting the decline and improving the fisheries for future generations and the health of the moana.

Travel to Wellington to meet with Ministers:

In November, the Guardians plan to meet with Ministers of Environment, Conservation, and Biosecurity face-to-face to share our concerns around cumulative pressures in the FMA and the role of the Guardians in addressing this matter, and the resourcing that is required for marine biosecurity initiatives.

Continue our strong support for the Fiordland

***Undaria* programme at all levels:** This support includes operational planning advice and reviewing the current effort funded via Jobs for Nature – Mahi mō te Taiao. We will begin to focus on the programme's future beyond 2023 and what is required to ensure its ongoing success.

Build on our work to ensure cumulative effects are managed throughout the FMA:

We will continue our involvement in the Coastal Plan review and remain engaged with the Resource Management Act (RMA) reforms. We will renew efforts to achieve meaningful engagement with the Milford Opportunities Project, following the launch of their Master Plan in July 2021.



Resource consents

We considered and responded to a number of resource consent applications to Environment Southland during the year.

These fell into three categories:

1. Non-notified, where we were identified as an affected party.
2. Notified, where we felt that the conditions contained in current legislation (such as the Regional Coastal Plan for Southland) sufficiently addressed any concerns.
3. Notified, where we provided a submission with recommendations for conditions that should be included in any consent granted.

These applications are listed in Environment Southland's report on pages 33–35.





Meetings

Fiordland Marine Guardians general meetings

Four meetings involving Fiordland Marine Guardians and management agencies were held during the year.

19 August 2020	Video conference
12 November 2020	Environment Southland, Invercargill
23 February 2021	Environment Southland, Invercargill
5 May 2021	Kingsgate Hotel, Te Anau

Sub-committee meetings

We operate four sub-committees, which are attended by representatives from the Guardians and management agencies. Each sub-committee works to a plan, which is typically reviewed every four to five years. There is also a working group that progresses work relating to Environment Southland's consultation on the Regional Coastal Plan for Southland (Convenor: Ali Ballantine, Fiordland Marine Guardians).

The sub-committees align with the requirements of the Fiordland (Te Moana o Atawhenua) Marine Management Act to develop plans and disseminate information on:

- **Biological monitoring** (Convenor: Richard Kinsey, Department of Conservation)
- **Biosecurity** (Convenor: Jen Geange, Biosecurity New Zealand)
- **Communications and Engagement** (Convenor: Dr Kerri-Anne Edge Hill, Fiordland Marine Guardians)
- **Compliance** (Convenor: Stephen Logie, Ministry for Primary Industries).

The Guardian sub-committee and working group members are:

Jerry Excell – Compliance

Mark Peychers – Resource Consents

Stewart Bull – Monitoring, Biosecurity

Jon Clow – Communications and Engagement, Compliance

Dr Kerri-Anne Edge Hill – Communications and Engagement, Monitoring

Peter Young – Monitoring, Compliance

Ali Ballantine – Biosecurity, Review of Regional Coastal Plan for Southland

Dr Rebecca McLeod – the Chair has oversight of all sub-committees

Sub-committee meetings held during the past year included:

Biological monitoring sub-committee meeting

4 May 2021 Te Anau

Biosecurity sub-committee meeting

3 June 2021 Video conference

Communications sub-committee meetings

9 March 2021 Video conference

21 April 2021 Video conference





Agency reports



Ministry for the Environment

Role

The Ministry for the Environment – Manatū mō te Taiao administers the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005 (the Act). In this capacity, we provide secretariat support to the Fiordland Marine Guardians and support the Minister for the Environment in fulfilling their obligations under the Act.

Achievements

Secretariat

In July 2020, Haydee Wilton was appointed to provide secretariat and policy support to the Guardians. In October 2020, Fiona Newlove replaced Nicola Scott as the Ministry's representative at Guardians' meetings.

Fiordland Marine Guardians appointments

The terms of four Guardians expired in October 2020. We helped the Minister for the Environment run an open public process to appoint people to these roles over the course of 2020/21. The appointment term of Te Rūnanga o Ngāi Tahu's nominated member, Stewart Bull, also expired in June 2021. As such, we supported the Minister for the Environment to seek Te Rūnanga o Ngāi Tahu's nomination for a person to be appointed to the Guardians.

New Guardians John Cushen and Gavin Tayles will join the group from 1 July 2021, while Rebecca McLeod, Mark Peychers and Stewart Bull were all re-appointed.

As the Act allows existing Guardians to continue in their roles, Jonathan Clow and Jeremy Excell continued as Guardians until the appointment process was complete and stepped down on 30 June 2021. We thank Jon and Jerry for the contribution they made in their combined 21 years as Guardians.

Update of User Guide

This year we supported the Guardians to update and reprint their popular *Beneath the Reflections* User Guide. It now incorporates all the latest information on fishing regulations and *Undaria* exemption areas, and will continue to be a valuable resource to those using the Fiordland Marine Area.

Looking ahead

Further Fiordland Marine Guardians appointments

The terms of three Guardians are due to end in October 2022. We will begin work on the appointment process in early 2022 and we expect the Minister for the Environment to make recommendations to the Cabinet Appointments and Honours Committee in late 2022.



Department of Conservation

Role

The Department of Conservation (DOC) – Te Papa Atawhai has been one of the key agencies associated with the Fiordland Marine Guardians (FMG) since the inception of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005. Under the Act, we lead the biological monitoring plan for the Fiordland (Te Moana o Atawhenua) Marine Area (FMA). The plan sets out ways in which we will monitor the state of the marine environment and its biological diversity, and also incorporates elements such as social monitoring to evaluate what people think of the FMA.

In addition to the role that DOC plays with the Guardians, we are responsible for managing a suite of other statutory responsibilities within Fiordland, most importantly:

- Marine Reserves Act 1971 (there are 10 marine reserves in Fiordland)
- Marine Mammal Protection Act 1978 & Protection Regulations 1992
- National Parks Act 1980 (for Fiordland National Park).

Achievements

The Department has once again enjoyed working with the Guardians and our agency partners on a number of important topics that will have a strong bearing on how the FMA will be shaped in the future. It has been impressive to witness how much mahi the Guardians

have collectively put in this year and how much dedication they have shown, especially with their work on recreational fisheries management, the Resource Management Act, biosecurity and monitoring.

Although the impacts of last year are still being felt by many within the Fiordland community, this year has been a better year for most. DOC is very proud of our work as part of the Government's newly created Jobs for Nature – Mahi mō te Taiao programme that is helping to make a difference to people unable to keep working in industries still affected by COVID-19. The Jobs for Nature initiative has so far funded over \$5 million of work in the region and more than 60 full-time positions. Most important for the marine environment is the significant funding given to Environment Southland to remove *Undaria* biomass from Te Puaitaha/Breaksea Sound. With more Jobs for Nature funding likely to be announced in the future, these figures could increase.

In the marine space, the Department has had a very busy year. Exciting new projects have been initiated along with the continuation of our important long-term work. A summary of the highlights can be found below.

Fiordland humpback whale survey

The annual survey of humpback whales migrating southwards along Fiordland's coast took place in November 2020. DOC and University of Auckland staff surveyed the area between Taitetimu/Caswell Sound and Tamatea/Dusky Sound, from 2–10 nautical miles offshore.

There were good numbers of whales sighted over the course of a week, with 37 groups and a total of 51 whales recorded (some of these animals were repeat sightings). In total, 22 biopsy samples and 7 tail fluke photographs were obtained to assist in identifying which population these whales belong to. Although it is likely that the whales originate from the East Australian breeding population (estimated to have ~30,000 individuals), to date, samples from previous surveys have not found a genetic or photo identification match to any other population noted in national and international databases around the Pacific.

Mapping Clio Rocks Marine Reserve

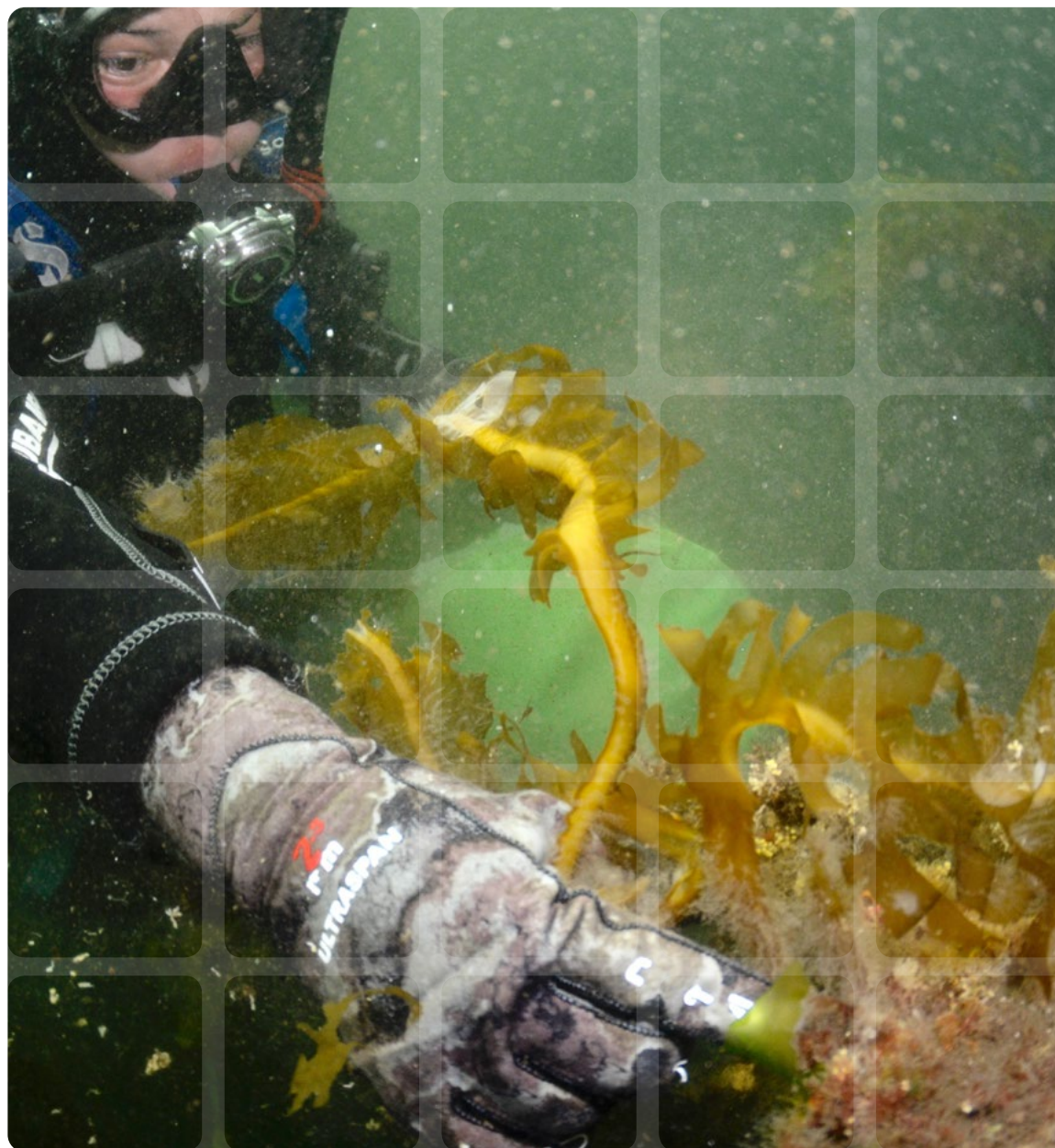
During late November/early December 2020, a team of staff and students from the University of Otago spent six days mapping the Hawea/Clio Rocks Marine Reserve in Hāwea/Bligh Sound as part of a DOC contract with the University. The original target of the trip was the Hautai Marine Reserve on the west coast, but due to large seas this wasn't possible. Mapping was performed using a multibeam sonar that sends out 256 pings of sound at a time in an array, which is reflected by the seafloor back to the unit. Depth measurements are based on the time it takes for the return to reach the multibeam unit. Also quantified was the relative reflective nature of the seafloor which is based on the intensity of the reflected sound, as different substrates absorb sound in different ways, eg, soft sediment generally has greater absorption than rocky reef.

Mapping in the fiord environment posed some interesting challenges, such as shading of satellite GPS positioning by the high-sided walls, significant changes in depth over very short distances from the fiord wall, and multiple reflections of pings as they bounced off, not only the bottom, but also the sides of the fiord. However, the University was able to produce a very detailed map of the Hawea/Clio Rocks Marine Reserve, which can be used in the future for ground-truthing habitat and ecosystem types.

Deep marine ecosystems

In January 2021, DOC hosted Professor James Bell and Dr Alice Rogers aboard the *MV Southern Winds* in Doubtful Sound/Patea. Professor Bell is studying temperate mesophotic ecosystems (TMEs), communities between 15 and 150 metres in depth that are some of the least studied ecosystems in the world. These TMEs support very high biodiversity and provide vital habitat for many economically and ecologically important species. James and his team installed semi-permanent photo-monitoring sites in Doubtful Sound/Patea at 22–25 metres and used their remotely operated underwater vehicle (ROV) to document the biodiversity of the fiord walls.

Dr Rogers focused on the impacts of climate change on marine ecosystem health and functioning. She is trying to understand how climate change might alter the value of our marine ecosystems and the services they provide, such as fisheries and tourism.



Dr Rogers is using a predictive model to help make predictions about the state of the ecosystem with the threats of future change, such as ocean warming, acidification or increased rainfall. The model is centred around a food web which captures how all the organisms in the system are related – who eats who and what the main sources of primary production are.

For DOC, it is great to be able to work with others to help inform us of the future impacts on the fiord ecosystems and how climate change might alter key species. We hope to carry on this partnership in the future.

Emerging scientists' trip to Fiordland

Fiordland is a remote and often unforgiving place, which can be very hard to access without a capable vessel and good local knowledge. DOC, with the help of the Guardians, initiated a trip in February 2021 aboard the *MV Southern Winds* to help researchers and emerging scientists gain access to Fiordland to further their studies. The trip carried out some interesting projects and hopefully sparked an interest in this unique environment for the future.

After receiving several proposals, a total of four researchers came on the voyage, studying a range of projects.

Kina – Kelsey Miller (University of Auckland) looked at the relative health of *kina* in different locations throughout Fiordland, using sites that were last monitored 20 years ago. *Kina* are often in better condition in areas that have plenty of kelp species to eat. Kelsey was also interested

in whether the number of flatworms that live inside *kina* is different in those areas with better food availability or whether it is related to other effects.

Red algae parasites – Dr Maren Preuss (Victoria University of Wellington) studied parasitic red algae that lives on a host red algae. Maren has been trying to understand the changes that occur when an organism switches from a free-living to a parasitic lifestyle. Seven of the red algae specimens collected on the trip were completely new parasitic red algal species. These samples will further our understanding of how parasitism evolved and show that the FMA has many secrets left to reveal.

Baited underwater video (BUV) – Odette Howarth (Massey University) used BUV frames to survey fish species inside and outside the marine reserves of Fiordland. BUV units were deployed between depths of 10–100 metres across a variety of habitats (silt, mud, rocky reef, cobble, sand). Ninety sites were sampled, recording 17 fish species, including 6 species of sharks or skates. In addition to the fish, invertebrate species were also recorded, predominantly sea pens and brittle stars, however, one large (~4 kilogram) crayfish appeared at one site. Odette is still working on analysing over 90 hours of footage.

NZ fur seal/kekeno population counts – Dr Louise Chilvers (Massey University) undertook fur seal population counts in southern Fiordland, which hadn't been done for more than 10 years. Her survey used direct

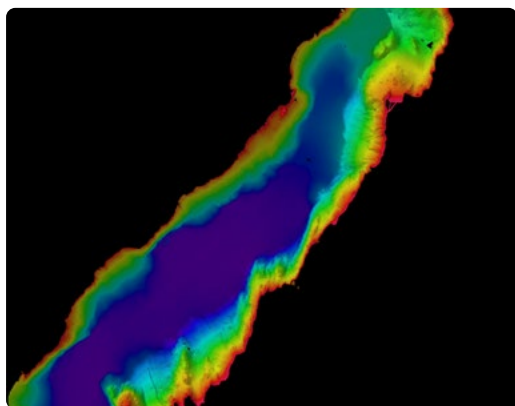
counts or 'mark-recapture' methods at breeding colonies on Breaksea and Wairaki Islands (Te Puaiteaha/Breaksea Sound), the islands at the entrance to Tamatea/Dusky Sound, the Nee Islets in Doubtful Sound/Patea, and the breeding colony at Chalky Island.

It was estimated that the population of fur seals in Southern Fiordland is between 14,000–24,000. Interestingly, the survey also recorded fur seals breeding in forested areas – a first official record anywhere in the world.

Overall, the research trip was a great success and DOC was impressed with the way that everyone worked together. We are very keen for this sort of expedition to become a regular feature of the monitoring programme within the FMA in the future.

Biosystematics Atlas

For some time now, DOC and the National Institute of Water and Atmospheric Research (NIWA) have been working on an updated Biosystematics Atlas for the FMA. This is a guide for divers/snorkelers containing many of the more common species found on the fiord walls and in the intertidal areas. The new atlas, which includes over 150 species, ranging from brachiopods to brown seaweeds, is now complete and will be a useful resource for anyone who wants to know what lives in the fiords. See the Atlas at: <https://niwa.co.nz/coasts-and-oceans/marine-identification-guides-and-fact-sheets/fabulous-fiordland>



Fiordland bottlenose dolphin monitoring

DOC and researchers from the University of Otago continued to partner in the long-term bottlenose dolphin-monitoring project this year in Doubtful Sound/Patea, Tamatea/Dusky Sound and Te Puaitaha/Breaksea Sounds. Three trips occurred (spring, summer and winter) for census counts of each sub-population.

The most recent population abundance estimate for Doubtful Sound/Patea is 68, with 6 new calves born this season. For the Tamatea/Dusky Sound and Te Puaitaha/Breaksea Sound population, the estimate is 124, with 4 new calves born this season.

The long-term dataset for Fiordland's bottlenose dolphins is one of the best in the world, with over 30 years of data in Doubtful Sound/Patea and 14 years of data in Tamatea/Dusky Sound and Te Puaitaha/Breaksea Sound. This provides incredibly valuable information for DOC to help manage these populations and understand their dynamics.

Undaria

Firstly, it is exciting that the Environment Southland (ES) *Undaria* biomass removal project, funded by Jobs for Nature – Mahi mō te Taiao, has been given the go ahead. It will be a real positive to reduce the numbers of spores present in Te Puaitaha/Breaksea Sound and it will give a good indication of whether a control programme can be successful.

The containment programme that has been run by DOC, ES and Biosecurity New Zealand (Ministry for Primary

Industries) has continued this year and is proving to be successful at keeping *Undaria* within the boundaries of Te Puaitaha/Breaksea Sound and a small area in Northport, Taiari/Chalky Inlet.

The control work in Taiari/Chalky Inlet appears to have been very successful with no mature *Undaria* having been found since the initial individual in April 2019.

DOC remains committed to this work and along with ES and MPI, we would like to thank all those that have helped in any way with the project.

Looking ahead to 2021/22

DOC has plenty planned for the year ahead, including work on developing a clearer strategy for monitoring in the FMA that will help to guide our priorities. We will continue to work with the Guardians and Environment Southland to inform the Coastal Plan review and are committed to continuing the *Undaria* battle in Te Puaitaha/Breaksea Sound and Taiari/Chalky Inlet.

Other interesting projects are planned, including a resurvey of some of the long-term underwater biological monitoring sites, dolphin monitoring, humpback whale monitoring and potentially, the finalisation of Fiordland's pou pou to mark the marine reserves in Milford Sound/Piopirotahi.

As always, we look forward to working with the Guardians on realising their vision for the Fiordland (Te Moana o Atawhenua) Marine Area and helping to protect such an amazing piece of Aotearoa.





Environment Southland

Role

As a regional council, Environment Southland – Te Taiao Tonga is responsible for the sustainable management of Southland’s natural resources – land, water, air and coast – in partnership with the community. Environment Southland has an important role to play in managing Southland’s coastal marine area (CMA), including marine biosecurity, navigational safety, and managing consents (and their compliance) within the Fiordland marine environment. This role is most successful when we work in collaboration with other key agencies and organisations.

Achievements

Marine biosecurity

Environment Southland (ES), the Department of Conservation (DOC) and Biosecurity New Zealand have been working to control and prevent the spread of *Undaria* within the Fiordland Marine Area.

Te Puaitaha/Breaksea Sound: containment

During this year, there were eight successful containment trips to Te Puaitaha/Breaksea Sound. Several *Undaria* specimens were found and controlled throughout the year, but no range expansion outside the containment area was detected. Additional surveillance dives were undertaken on the Gilbert Islands and the north side of Resolution Island.

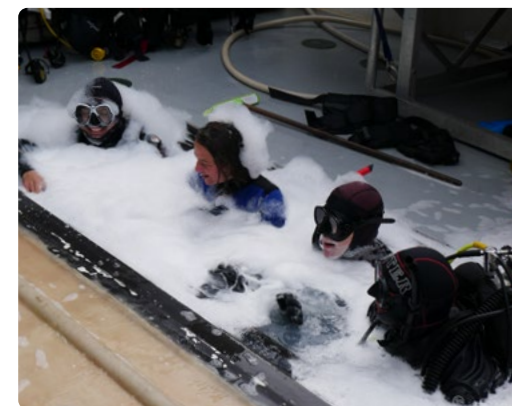
In addition to the containment work, funding has been secured from the Department of Conservation’s Jobs for Nature – Mahi mō te Taiao programme. The funding will be used predominantly to train new divers from within the Te Anau community. Once trained, these divers will be deployed to Te Puaitaha/Breaksea Sound to control the main *Undaria* infestation. Reducing the overall biomass within the Sound should reduce the risk of further spread.

Taiari/Chalky Inlet: elimination

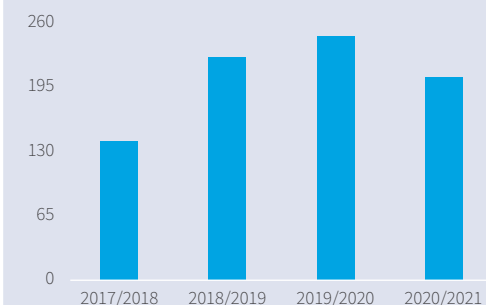
During 2020/21, eight elimination survey trips occurred in North Port and surrounding areas (see Map 2). No *Undaria* was found on any of these trips, despite extensive searching. The last confirmed detection of *Undaria* in Taiari/Chalky Inlet was in October 2019. We are, therefore, confident that the elimination is on track. Monitoring will continue for at least another 12 months.

Clean vessel passes

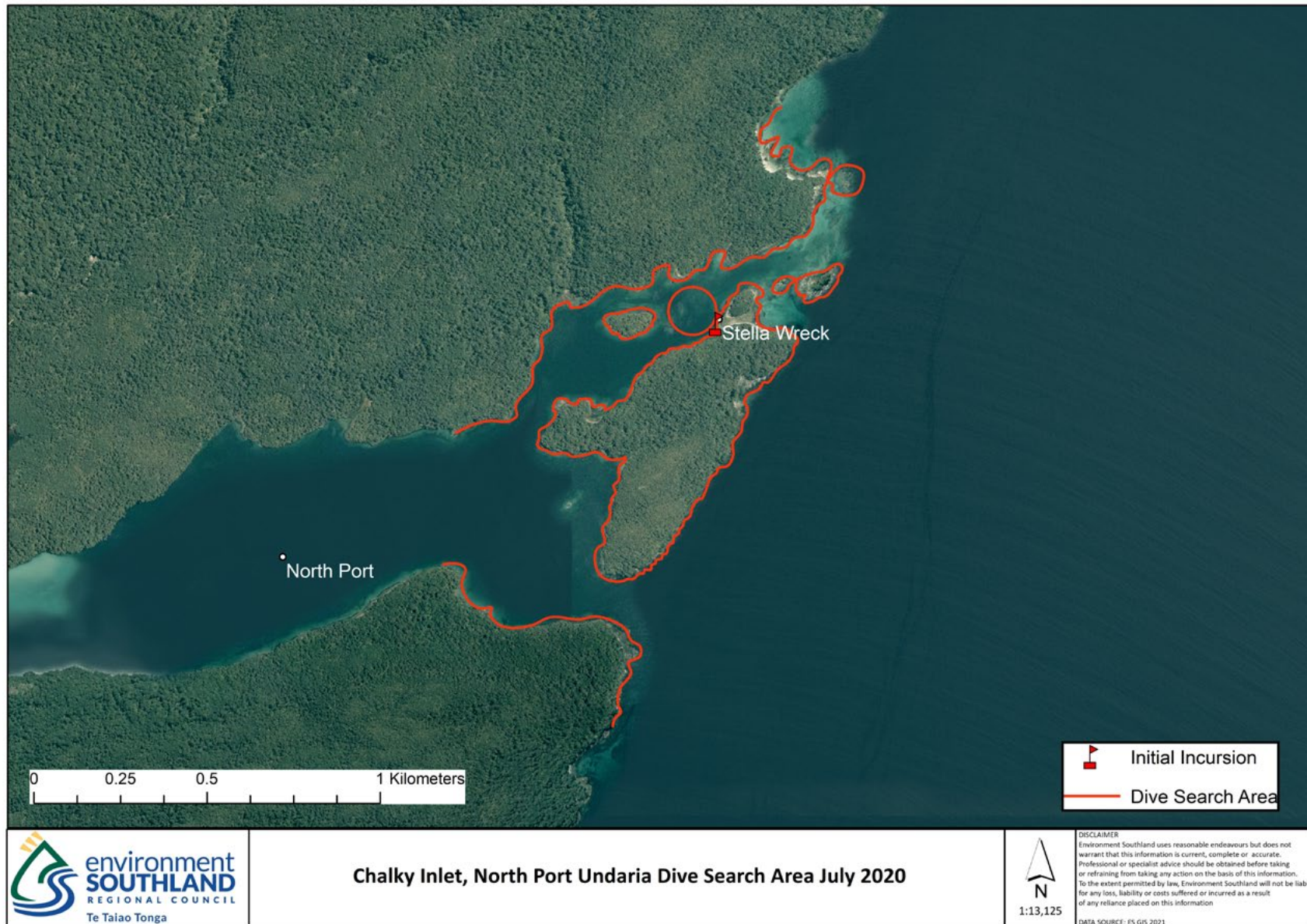
Despite a sharp increase in clean vessel pass (CVP) applications at the start of 2021 (January to March), there has been an overall decrease in CVP applications, with only 203 applications, compared to 244 the previous year.



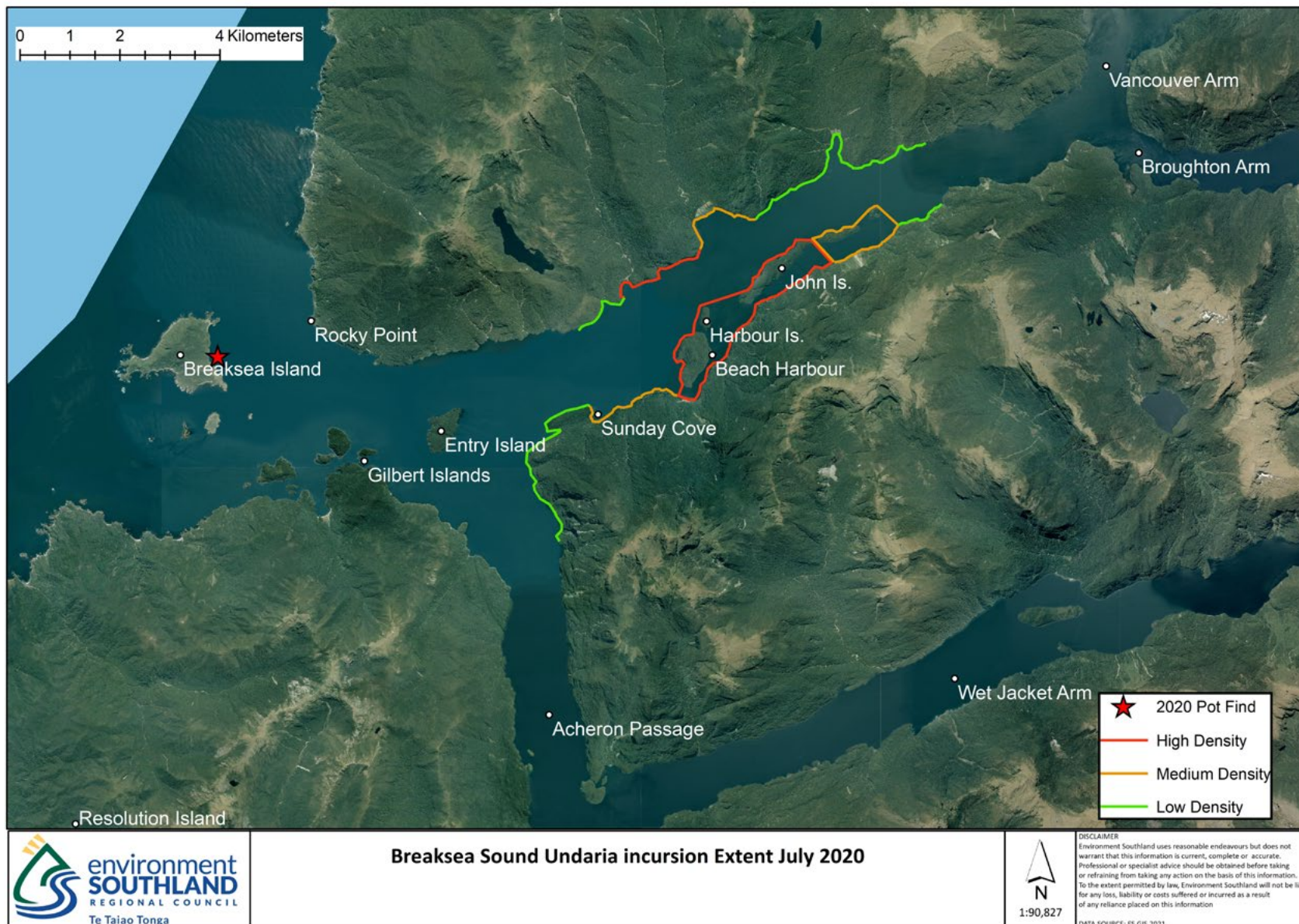
Annual applications of clean vessel passes



Map 1: Taiari/Chalky Inlet, North Port *Undaria* Dive Search Area, July 2020



Map 2: Te Puaitaha/Breaksea Sound, *Undaria* extent and cray pot find location, July 2020



Clean vessel pass advertisement focused on recreational and commercial users of Fiordland. Social media posts, radio advertisements and interviews have been running throughout the year. In addition, the CVP is featured in the *NZ Boaties* book and web app to remind boaties nationwide about the Fiordland Marine Pathway Management Plan rules. A notice was sent out to all existing pass holders in July 2020, reminding people of their obligations and including helpful information.

Marine biosecurity compliance and surveillance *Southland Regional Marine Invasive Species Surveillance and Compliance Plan*

Due to COVID-19 and the lack of cruise ships creating budget constraints, the Southland Regional Marine Invasive Species Surveillance and Compliance Plan is on hold. In the coming year, ES will be investigating alternative funding options.

Compliance and surveillance activity

Two compliance and surveillance trips were carried out this year. Inspections are free for vessels that hold a clean vessel pass and are compliant with the clean hull standards. These trips inspected 71 vessels, of which 18 didn't have a CVP. The majority of these were trailer boats that posed a relatively low biosecurity risk. The skippers of these boats were given information about marine biosecurity, the Pathways Plan, the importance of hull and gear cleaning, and a warning to apply for a CVP before they returned to Fiordland. Four skippers of higher risk vessels were warned and charged for the inspection.

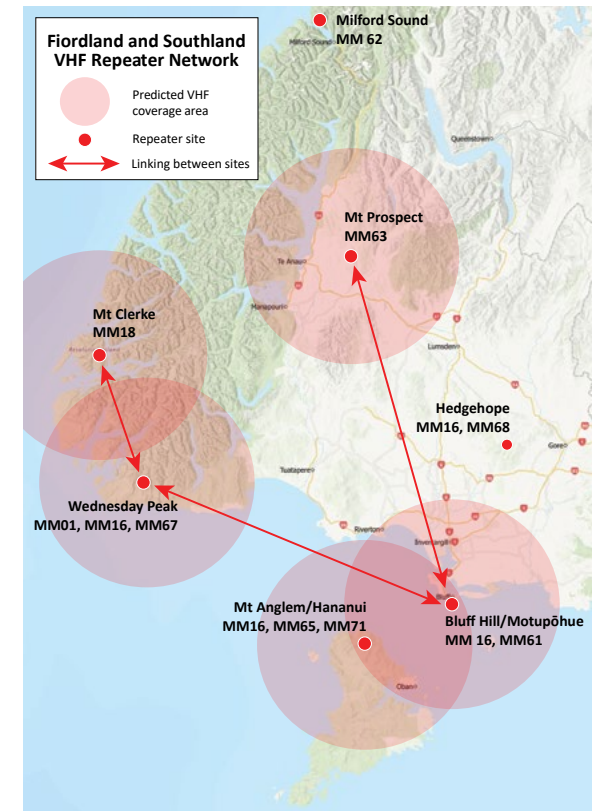
Additional communication with recreational boats and residential vessels is planned for the coming year to increase compliance with rules.

During these trips, mooring lines and anchorages were inspected. No organisms of concern were detected during these inspections.

In addition to the compliance trips, ES has responded to all reports of potential breaches. Inspections and subsequent compliance action have been completed as appropriate.

Harbourmaster

Phase one of the Fiordland VHF Project to install an improved communication network for the internal waters of Fiordland is complete. Phase two will see the installation of an Automatic Identification System (AIS) to the very high frequency (VHF) repeater sites to track the movement of vessels within the Fiordland region.



Resource consents

Under the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, the Guardians provide advice on resource consents to Environment Southland, which the Council must then factor into the decision-making process. The Guardians may also make submissions on publicly notified applications or attend pre-hearing meetings and hearings for which they have provided submissions.

For the year 1 July 2020 to 30 June 2021, the Council received and processed the following 28 applications in the Fiordland (Te Moana o Atawhenua) Marine Area:

* **not yet decided**

** **application returned as incomplete**

*** **withdrawn**

- **Ayto – William Richard and Lynley Robin (APP-I-20202520) ****

To carry out commercial surface water activities, namely the operation of the vessel Takaroa, adjacent to Fiordland National Park between Yates Point to Puysegur Point.

- **Milford Sound Sea Kayaks Limited (APP-20202489)**

To carry out commercial surface water activities within the Milford Sound/Piopiota area, namely to undertake guided sea kayak tours.

- **James Bell (APP-20202471)**

To attach a maximum of 20 stainless steel pins to the rock surface at 25 metres at three locations in Doubtful Sound/Patea to establish deep-water ecological monitoring stations.

- **Ayto – William Richard and Lynley Robin (APP-20202563)**

To carry out commercial surface water activities, namely the operation of the vessel Takaroa, adjacent to Fiordland National Park from Yates Point to Puysegur Point.

- **Brunton – K E and A (APP-20211196)**

To relocate, erect and occupy part of the bed and bank of the Hollyford River with whitebait stand number MDS1152.

- **Department of Conservation – Invercargill (APP-20211054) ***

To occupy the coastal marine area with a commercial berthage facility of 30 berths along pens, a five-pile mooring and a wharf, predominantly utilised by the fishing industry at Deepwater Basin, Milford Sound/Piopiota.

- **Fiordland Charters Limited (APP-I-20211340) ****

To occupy part of the CMA with two moorings at Broughton Arm and Beach Harbour, Te Puaitaha/Breaksea Sound for the purpose of mooring the vessel *MV Pembroke*.





- **Fiordland Charters Limited and Fiordland Discovery Limited (APP-I-20211341) ****
To occupy part of the CMA with a mooring at Many Islands, Tamatea/Dusky Sound, for the purpose of mooring two vessels *MV Pembroke* and *MV Fiordland Jewel*.
- **Gravity Fishing Limited (APP-I-20211095) ****
To undertake commercial surface water activities in the coastal waters from Yates Point to Tamatea/Dusky Sound.
- **Maria Kuster and Sean Ellis (APP-20211363)**
To exclusively occupy the coastal marine area with three swing moorings at Vancouver Arm (Te Puaitaha/Breaksea Sound), Shark Cove (Tamatea/Dusky Sound) and Cascade Cove (Tamatea/Dusky Sound).
- **Mr Charlie William Drysdale (APP-20202350) *****
To occupy part of the bed of the Hollyford River with a six-metre whitebait stand, number S055.
- **Mr Jeremy William Excell (APP-20211275)**
To exclusively occupy the coastal marine area with a commercial fishing vessel up to 15 metres registered length at Deep Cove, Doubtful Sound/Patea.
- **Offspring Travel Ltd (APP-20202433)**
To carry out commercial surface water activities, namely to operate guided kayaking trips in the internal waters of Doubtful Sound/Patea.

- **Offspring Travel Ltd (APP-20211167)**
To occupy part of the coastal marine area with a pontoon mooring at Deep Cove.
- **Real Journeys Limited (APP-20211164)**
To undertake commercial surface water activities in the coastal marine area adjacent to the Fiordland National Park from Yates Point to Puysegur Point, with the Patea Explorer or replacement vessel.
- **Strannik Ocean Voyages Limited (APP-I-20202423) ****
To undertake commercial surface water activities in the coastal marine area between Yates Point and Puysegur Point.
- **Strannik Ocean Voyages Limited (APP-20202466)**
To undertake commercial surface water activities in the coastal marine area from Puysegur Point to Yates Point.
- **Meridian Energy Limited (APP-96019-V4)**
To discharge fresh water and contaminants to the water at Deep Cove, Doubtful Sound/Patea, by means of the artificial discharge channel – variation to change the Marine Monitoring Programme in Doubtful Sound/Patea and Milford/Piopiota Sound.
- **David, Daniel and Jeremy Excell (APP-20202495)**
To exclusively occupy the coastal marine area with a wharf and hut and to occupy the coastal marine area with a submarine line in Blanket Bay, Doubtful Sound/Patea.
- **Davis, Rewi and Jana (APP-I-20211076) ****
To install and occupy part of the coastal marine area with a mooring at Deepwater Basin, Milford Sound/Piopiota, and to undertake commercial surface water activities in Milford Sound/Piopiota, extending to Stewart Island/Rakiura.
- **Fiordland Discovery Limited (APP-20211318)**
To preferentially occupy part of the coastal marine area with a mooring breast line structure, including a single buoy, and to moor a vessel up to 20 metres in registered length at Deep Cove, Doubtful Sound/Patea.
- **Maria Kuster and Sean Ellis (APP-20211024) ***
To undertake commercial surface water activities in the coastal marine area adjacent to Fiordland National Park from Yates Point to Puysegur Point.
- **The Alpine Group Limited (APP-20211216) *****
To land a helicopter on the foreshore below mean high water springs within 1 kilometre north of Yates Point for the purpose of pest control, mainly stoats and rats, to protect the penguin nesting area.
- **Department of Conservation – Invercargill (APP-20211132)**
To replace a wharf structure at Deep Cove, Doubtful Sound/Patea and to occupy the coastal marine area with a wharf and attached vessel.
- **Fiordland Expeditions Limited (APP-20202542)**
To undertake commercial surface water activity in the internal waters of Fiordland.
- **Fiordland Expeditions Limited (APP-20211089) ***
To install a walkway and 40-metre floating pontoon wharf structure in Deep Cove, Doubtful Sound/Patea.
- **Heritage Expeditions Limited (APP-20211023)**
To undertake commercial tourism expedition cruises in Fiordland from Yates Point to Puysegur Point.
- **Legacy Fishing Charters Limited (APP-20211037)**
To occupy part of the coastal marine area with a pontoon and associated structures for a mooring, and with a vessel when attached to the mooring, at Deep Cove, Doubtful Sound/Patea.

Consent compliance

The Consent Compliance Department undertook a number of compliance activities in Fiordland. In November 2020, ES compliance staff completed whitebait stand consent inspections at Big Bay and Martins Bay in Fiordland. The majority of the stands at Martins Bay had been destroyed by the February 2020 flooding in the area. Big Bay stands were not affected by the floods and were inspected.

Compliance staff also visited Deep Cove in March 2021 for structure inspections. There were a small number of non-compliances detected. One wharf was considered to be in need of repair (this was not including the Meridian wharf which was closed to vessels, pending an engineering assessment). All other non-compliances were technical or administrative in nature.

Most operators are submitting Commercial Surface Water Activity monitoring reports.

ES Compliance also received a couple of reports of vessels operating either without consents or outside consent conditions. These reports or suspected breaches could not be confirmed. Hence, no formal enforcement action was undertaken.

Looking ahead

Marine biosecurity

In the coming year, Environment Southland plans to focus on increasing control within Te Puaitaha/Breaksea Sound (through the Jobs for Nature dive programme), compliance trips, and continual communications (with ongoing radio, newspaper and print articles, and advertisements planned).

Harbourmaster

Looking ahead, the maritime team will continue to work on providing effective VHF and navigation safety coverage and support in the compliance and biosecurity areas of Fiordland.

Resource consents

Anecdotal evidence and feedback received by Environment Southland from a number of stakeholders suggests that the outstanding values of the Fiordland CMA, and in particular the more remote southern parts of the Fiordland CMA, are at risk of being eroded as a result of increased intensity of current commercial surface water activity (including in scale, duration, location and intensity) and from proposed new commercial surface water activities.

In response, an ES working group is in the process of drafting a proposed interim plan change to the operative Regional Coastal Plan which will seek to deter any increases in activity (including in scale, duration, location and intensity) until the full Regional Coastal Plan for Southland review process is complete.

ES has also commissioned an independent report by Victoria Froude with Stephen Espiner to obtain a better understanding of the (commercial) vessel carrying capacity for different parts of the fiords, and to make recommendations on acceptable levels of vessel activity to inform the Regional Coastal Plan review process.

During a resource consent hearing on 3 March 2021, ES recommended to decline an application that was seeking to increase current commercial daytrip allocation within the Doubtful/Patea complex. On 29 March 2021, Independent Hearing Commissioner Sharon McGarry refused the application, concluding that the environmental effects would potentially be more than minor, and that the application was inconsistent with the promotion of sustainable management of natural and physical resources, as defined in section 5 of the RMA. ES and the Guardians are currently engaged in an Environment Court process with the applicant.

Consent compliance

Plans for the 2021–22 year include an auditing of the structures and wastewater treatment plants in Deep Cove and Milford Sound/Piopiota, and inspections of whitebait stands in Martins Bay and Big Bay. We will continue to encourage a high level of compliance with the conditions of current resource consents in Fiordland.



Ministry for Primary Industries
Manatū Ahu Matua



Ministry for Primary Industries

The Ministry for Primary Industries (MPI) – Manatū Ahu Matua and our four branded business units, Biosecurity New Zealand, Fisheries New Zealand, Food Safety New Zealand and Forestry New Zealand, help to grow and protect New Zealand’s primary industries. Our role is to maximise export opportunities and improve sector productivity, increase sustainable resource use, and protect New Zealand from biological risk. For the Fjordland (Te Moana o Atawhenua) Marine Area, we:

- provide policy advice and programmes that support the sustainable development of New Zealand’s primary industries including on fisheries and aquaculture management
- provide whole-of-system leadership of New Zealand’s biosecurity system
- purchase science services to maintain the effective management of New Zealand’s fisheries.

We work to ensure fisheries and other resources are managed sustainably, using a ‘voluntary, assisted, directed, enforced’ approach to compliance. Education and informing public and stakeholders are essential to ensuring effective voluntary compliance.



Biosecurity New Zealand

Ministry for Primary Industries
Manatū Ahu Matua

Biosecurity

Role

Biosecurity New Zealand is responsible for leading the development and maintenance of the biosecurity system that protects the environment and resources from biological risk and supports sustainable fisheries management. This includes bringing national developments in marine biosecurity tools, response, management and policy to the attention of the Guardians. The Readiness and Response Services Directorate is responsible for leading this work; teams include advisers who are preparing for and managing responses, and coordinating recovery and long-term management activities.

Achievements

Marine Biosecurity Plan 2015/16–2020/21

We continued to take the lead on implementing the Fiordland Marine Biosecurity Plan 2015/16–2020/21, together with partner agencies and the Guardians.

The Biosecurity Plan takes a ‘pathways’ approach to biosecurity where management tools that aim to reduce or prevent the spread of pests can be applied to pathways or parts of pathways. The activities set out in the Biosecurity Plan address the full spectrum of the biosecurity system: reduction, readiness, response, recovery, and resilience.

Key biosecurity achievements under this plan over the last year include:

- Vessel hull inspections: Biosecurity New Zealand contracted work to undertake in-water hull inspections for marine pests on moored vessels based in Bluff and at Stewart Island/Rakiura that are known to travel to the Fiordland (Te Moana o Atawhenua) Marine Area. These monthly inspections looked for marine pests, and assessed the vessel’s antifoul condition and level of general marine growth. When marine pests were found, they were removed (if not of a high density) and the vessel owner was advised of what action to take before their next visit to the FMA.
- No routine monthly inspections took place from May to October 2020; however, vessels owners were still able to request an inspection before taking their vessel to the Fiordland (Te Moana o Atawhenua) Marine Area. Thank you to those that took up this request.
- Fiordland clean hull messaging was advertised on the MetService app and on their marine coastal webpages from October 2020 to April 2021.
- We participated in the February and April 2021 joint-agency compliance and marine surveillance patrol by providing support to the in-water inspections of vessel hulls, high-risk anchorages, and structures for marine pests. Our staff also helped communicate marine biosecurity messaging and implementing the Fiordland Marine Pathway Management Plan.

- Marine biosecurity inspections on these patrols continue to be an effective way to help prevent future marine pests becoming established in Fiordland.

Future management of *Undaria* in Te Puaitaha/Breaksea Sound and Taiari/Chalky Inlet

Since 2010, Biosecurity New Zealand has been working with Environment Southland and DOC on the management of *Undaria* in Te Puaitaha/Breaksea Sound and Taiari/Chalky Inlet where *Undaria* was found in April 2019.

The agencies have also carried out regular elimination activities at Taiari/Chalky Inlet and since October 2019, they have found no *Undaria* there. While this elimination programme is looking promising, we have been working closely with the other agencies and Guardians to look at options to assist in preventing further spread from Te Puaitaha/Breaksea Sound, for example, establishment of a Technical Advisory Group, and exploring innovative tool development.

- In December 2020, Biosecurity New Zealand set up a Fiordland *Undaria* Technical Advisory Group (TAG). The TAG consists of members from MPI, DOC and the University of Otago. The purpose of the TAG is to provide expert scientific and technical advice to the agencies to inform their decision making.
- In January 2021, we issued a Registration of Interest (ROI). The objective of the ROI tender was to find a practical and feasible proposal for a potential tool or method for the large-scale suppression or eradication of *Undaria* from natural substrate in Fiordland.

The proposed tool or method would have to be suitable for the unique Fiordland marine environment (ie, non-target effects must be limited). This ROI process has informed MPI that viable options for the large-scale management of *Undaria* do exist. At this stage there is no secured funding to proceed to the next stage of selecting a preferred proposal and initiating a pilot programme for a selected proposal. The Pest Management team within Biosecurity New Zealand are currently investigating potential funding opportunities.

Targeted marine pest surveillance

As part of a National Marine High-Risk Site Surveillance Programme, MPI undertakes biannual surveys (winter and summer) in 11 locations around Aotearoa New Zealand (including the South Island ports of Bluff, Dunedin, Lyttelton, Picton/Waikawa and Nelson). This programme aims to achieve early detection of new unwanted marine pests in some of New Zealand's busiest, and therefore high-risk, locations – namely ports and marinas of first arrival for international vessels. Undertaking surveillance in the Port of Bluff has benefits to the Fiordland (Te Moana o Atawhenua) Marine Area, such as the early detection of new and emerging marine pests that may pose a threat to this region.

Over the past year, 1 new-to-New Zealand species and 11 non-indigenous species range extensions were detected by this programme, including:

New-to-New Zealand

- Ascidian *Lissoclinum perforatum* in New Plymouth

Range extensions

- Ascidian *Polyandrocarpa zorritensis* from Opuā
- Light bulb ascidian *Clavelina lepadiformis* from Whangarei
- Hydroid *Thalamoporella californica* from Waitemata Harbour
- Fish *Omobranchus anolius* from Tauranga
- Algae *Pachymeniopsis lanceolata* and *Polysiphonia brodiei* from New Plymouth
- Bryozoan *Tricellaria inopinata* and sponge *Amphilectus fucorum* from Wellington
- Ascidian *Ascidiella aspersa* and bryozoan *Celleporaria umbonatoidea* from Nelson
- Ascidian *Clavelina lepadiformis* from Otago.

Other key marine pest species, such as the Mediterranean fanworm *Sabella spallanzanii*, Asian kelp *Undaria pinnatifida* and the clubbed tunicate *Styela clava*, continue to be detected at South Island ports. Vessels arriving to Fiordland from such ports, including those in the North Island, are at risk of transporting these and other marine pests to the fiords.

If you want to map the current nationwide distribution of any marine species mentioned, see: www.marinebiosecurity.org.nz

What's new?

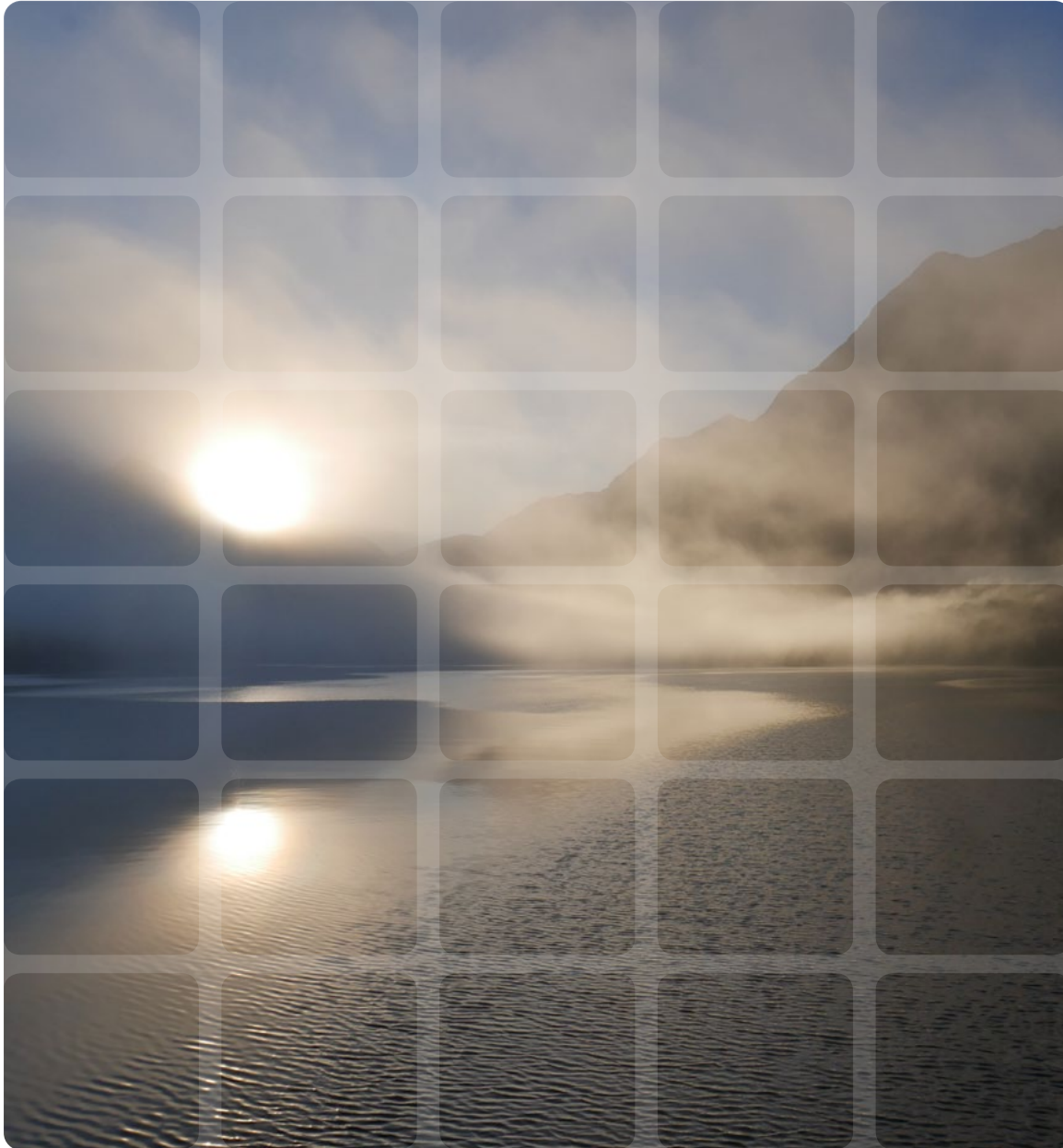
An interactive atlas of all New Zealand's biosecurity surveillance programmes has been created which includes the marine programme. It can be found at: www.mpi.govt.nz/biosecurity/how-to-find-report-and-prevent-pests-and-diseases/surveillance-programmes/

Enforcement of the Craft Risk Management Standard for Biofouling on vessels arriving from overseas

The Craft Risk Management Standard (CRMS) for Biofouling has been in force since 15 May 2018. We have continued to ensure the requirements and how to comply are clear to stakeholders and internal parties within MPI.

All cruise vessels visiting ports not approved as places of first arrival are required to apply for and operate under an MPI-approved Craft Risk Management Plan (CRMP) to meet the requirements of the CRMS-BIOFOUL. CRMPs outline the specific management actions which will be undertaken by the vessel operator to manage biosecurity risks before arrival and during the cruise season, and are approved by MPI before the vessel's arrival to New Zealand.

During the 2020/21 cruise season, no international cruise vessels have been able to operate in New Zealand due to the restrictions caused by COVID-19. This meant that no CRMPs were approved for cruise vessels for this period. It is uncertain when international cruise vessels will be able to return here to operate. When they do, the CRMS team plans to heavily engage with them to ensure they manage their biofouling risk, which is likely to be worsened by their lack of activity.



An operational research project is currently underway with the aim of improving our profiling of vessels that are likely to be contaminated with foreign marine species, putting us in a better place to target vessels that require further investigation. This involves selected international vessels completing a questionnaire about their biofouling management and profile, which will be followed up with a dive survey of the hull on arrival to New Zealand. The research is on track to be completed in February 2022.

The CRMS team attended the Sub-committee for Pollution Prevention and Response (PPR8) meeting of the International Maritime Organisation (IMO) in March 2021, to represent New Zealand in the initiation of the review of the IMO's Biofouling Guidelines. At PPR8, the Sub-committee approved the formation of a correspondence group to undertake the review of the guidelines before the next meeting. The CRMS team is part of this correspondence group and is currently working on a submission to the third phase of the review.

The CRMS team has also provided guidance and feedback on an international industry standard for in-water cleaning, which was developed by the Baltic and International Maritime Council.



Fisheries New Zealand

Tini a Tangaroa

Fisheries management

Role

Fisheries New Zealand continues to be committed to the sustainable management of New Zealand's fisheries resources. Our long-term goal is New Zealanders maximising benefits from the use of fisheries within environmental limits. In line with this goal, the Guardians are charged with providing advice and recommendations to management agencies and Ministers for the Fiordland (Te Moana o Atawhenua) Marine Area.

Achievements

Following on from last year's successful workshops with the Fiordland recreational fishing sector, Fisheries New Zealand has contributed to and supported the Guardians' analysis of the recent recreational fishers survey. The information from the survey and workshops has given Fisheries New Zealand and MPI Fisheries Compliance the ability to assist the Guardians in formulating any changes to recreational fishing rules and regulation for the Fiordland Marine Area that the Guardians may recommend to the Minister. This work is progressing well and is in tandem with the continued work the Guardians are doing with the Fiordland Amateur Charter Vessel (ACV) fleet on the ACV Code of Conduct.

There has also been ongoing developments with the National Blue Cod Strategy in response to the new rules introduced from 1 July 2020. There is a technical amendment being made to one of the Fisheries (Amateur Fishing) Regulations 2013 relating to blue cod in the Fiordland (Te Moana o Atawhenua) Marine Area, in relation to accumulated catch.



Ministry for Primary Industries
Manatū Ahu Matua



MPI Fisheries compliance

Role

The MPI Compliance Directorate is responsible for delivering compliance inspection services and investigations across fisheries, animal welfare, biosecurity, food, forestry, and other legislation that MPI administers.

At a regional level, the MPI Fisheries Compliance team based in Invercargill works closely with Fisheries New Zealand Inshore Team advisors to deliver agreed-upon fisheries compliance services within the Southland and Fiordland coastal water areas. A team of six Fishery Officers enforce the Fisheries Act 1996 and fisheries regulations by conducting routine surveillance patrols and vessel inspections, undertaking investigations and intelligence analysis across the commercial, recreational, and customary fishing sectors.

Since the establishment of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, the incumbent Southland District Team Leader has coordinated the MPI Fisheries Compliance contribution, and the shared delivery of an Integrated Compliance Plan, in collaboration with the Department of Conservation and Environment Southland. As a result, MPI Fishery Officers work closely with DOC Compliance Rangers and Environment Southland Compliance Officers and biosecurity staff

when the need arises, to optimise agency enforcement activities. This can include joint-agency seaborne patrols and the sharing of information to assist directed enforcement by either one, or a combination of the agencies. As a result of past *Undaria* pest seaweed detections, marine biosecurity compliance, together with marine pest dive surveillance of vessels, structures, moorings and anchorage sites, continues to be a major joint-agency focus, requiring the collaboration and input of all three compliance agencies.

A local senior MPI Fisheries Compliance representative regularly attends Guardians' meetings, providing report updates of all relevant fisheries compliance matters, including detected non-compliance and any emerging risks.

Achievements

Implementation of new recreational blue cod regulations

From 1 July 2020, new nationwide blue cod fishing amateur regulation amendments took effect. Local MPI Fisheries Compliance and Fisheries New Zealand staff produced, printed and distributed new updated *Fiordland Recreational Fishing Rules* brochures, together with a revised MPI website and Fishing Rules app information, incorporating the new blue cod rules. In Fiordland, the daily limit is now 10 blue cod, reduced from 20, with no accumulation applying.

One key new regulation change requires all fishers to retain and land blue cod in a measurable state. The regulation specifies a person must not possess any blue

cod in New Zealand fisheries waters unless it is in a whole or gutted measurable state. Therefore, blue cod must remain in a *whole* or *gutted* measurable state until ultimately landed ashore. There is one limited exception – blue cod can be processed/filleted on board a vessel if it is to be immediately eaten on board the vessel for a meal (but not to be retained for subsequent landing).

While Fishery Officers have largely taken an educational approach over the first 12 months, the infringement notice offence penalty for possessing or landing blue cod in an unmeasurable state is \$250, along with any unlawful state fish confiscation and disposal.

Multi-agency compliance and marine biosecurity seaborne patrols

In early February 2021, a multi-agency team of Compliance and Biosecurity Officers from MPI (including Biosecurity New Zealand), DOC and Environment Southland, conducted a successful seaborne patrol utilising the Department of Conservation *GV Southern Winds*. The six-day patrol, which commenced from Deep Cove, Doubtful Sound/Patea, took in eight fiords, initially patrolling south to Tamatea/Dusky Sound, before patrolling as far north as Te Houhou/George Sound. This included surveillance coverage of six marine reserves. Twenty-eight manned vessels were intercepted, boarded and inspected, including six commercial fishing vessels, six amateur-fishing charter vessels (A-FCV), two cruising sail yachts, and 14 trailer boats. In addition, several unmanned barges and one moored houseboat were checked, together with shore party inspections of four

DOC huts. This resulted in contact with a total of 131 people, primarily engaged in a mix of fishing, diving, deer stalking, and cruising.

Amateur fisher catch inspections involved predominantly rock lobster and blue cod, with lesser quantities of groper, sea perch, tarakihi, blue moki, trumpeter, wrasse, gurnard, albacore tuna, pāua, and scallops. Fishery Officers detected six amateur fisheries regulation offences, involving five separate recreational boat parties, which required either infringement notice issue or warning letter follow-up action. The amateur offences involved a diver with nine rock lobster (in excess of his six-daily limit), possession of undersize scallops and four instances of boat fisher parties in possession of unmeasurable state blue cod.

A second successful multi-agency compliance and biosecurity seaborne patrol, also utilising the *GV Southern Winds*, took place in early April 2021, with a multi-agency officer team from MPI (including Biosecurity New Zealand), DOC and Environment Southland. The six-day patrol commenced and returned to Deep Cove, Doubtful Sound/Patea and took in a total of seven fiords, patrolling between Te Awa-o-Tū/Thompson Sound to as far south as Rakituma/Preservation Inlet. This included surveillance coverage of four marine reserves, two of which were covered twice. Thirty-one manned vessels were boarded and inspected, including 10 commercial fishing vessels, seven A-FCV, one syndicate recreational vessel, one visiting cruising motor yacht, one local recreational vessel, one heli-barge and 10 trailer boats of

11 encountered. In addition, several unmanned barges and one moored houseboat were checked, together with shore party inspection visits to Kisbee Lodge and three DOC huts.

This resulted in contact with 160 people, primarily engaged in a mix of fishing, diving, deer stalking, and cruising. Amateur fisher catch inspections involved mainly rock lobster and blue cod, with lesser quantities of groper, sea perch, tarakihi, trumpeter, wrasse, Kingfish, Southern bluefin tuna, and pāua. Several amateur fisheries offences were detected. This included two breaches involving one visiting cruising charter vessel from the upper North Island, which required either infringement notice issue or warning letter follow-up action. The amateur offences involved possession of a dredge (prohibited within Fiordland) and possession of 16 live pāua on board the touring vessel, while carrying scuba gear. The visiting vessel did not have a clean vessel pass and the vessel skipper appeared to be unaware of some amateur regulations that apply within Fiordland.

In addition, several recreational vessel parties were found in possession of filleted blue cod that had been allegedly filleted for later meal use during the trip, rather than processed for *immediate* meal consumption.

Over the course of both the February and April patrols, in-water vessel hull dive inspections on vessels encountered were carried out by an ES Biosecurity Officer diver and a Biosecurity New Zealand diver, along with carrying out marine pest surveillance dives on wharf

structures, high-use moorings and anchorages in search of invasive marine pests. Above the water, ES officers checked for clean vessel pass compliance and provided biosecurity advice.

Throughout the year, Fishery Officers routinely carried out port landing vessel inspections at Milford Sound/ Piopiotahi, Riverton and Bluff – predominantly of commercial fishing vessels returning from the Fiordland fishing grounds. This mainly involved inspections of CRA8 rock lobster, pāua and *kina*, blue cod, set net, and longline fishing operators, checking to ensure both commercial catch landings and recreational crew catch was correctly reported, using electronic reporting and geospatial position reporting devices.

Commercial electronic catch and geospatial position reporting

Digital monitoring legislation that came into force in mid-2019 now requires all inshore commercial fishing fleet operators to use the new electronic e-logbook catch reporting regime, which replaced the previous daily paper-based catch reporting and end-of-month return furnishing. This has been coupled with mandatory geospatial position reporting by all registered fishing vessels to provide real-time fish catch event reports and vessel-tracking data.

The small Southland Fishery Officer team is kept busy, helping the 150 plus Southland-based commercial fisher clients to use and comply with new electronic reporting requirements. This has not been without its challenges,

owing to the new technology, the range of device hardware and software capabilities, and unforeseen device limitations, confounded by intermittent device failures, along with inexperienced user error. The isolated and challenging Fiordland working environment requires expensive satellite connectivity to enable fishers to send their electronic reports in daily to ensure they meet the reporting requirements. Despite the challenges, the electronic reporting regime has considerable benefits, enabling real-time analysis of catch effort, disposals and landing data, along with more accurately recording where the actual fishing occurred.

Looking ahead

Undaria in Fiordland

Over the coming year, Biosecurity New Zealand will continue working with Environment Southland and DOC on the *Undaria* elimination at Taiari/Chalky Inlet and long-term management of *Undaria* in Te Puaitaha/ Breaksea Sound, with a particular focus on using the TAG when needed and exploring options to fund the *Undaria* tool development project. We will also continue to work with all Fiordland partners to implement the Biosecurity Plan recommendations and look to undertake a review of the Plan towards the end of 2021.

The Rock Southland Boat Show 2021

Plans are afoot for MPI Fisheries Compliance (Southland), Biosecurity New Zealand (Wellington) and Fisheries New Zealand (Otago) to once again collaborate, participating in The Rock Southland Boat Show 2021

which is to be held at Stadium Southland over the weekend of Saturday 7 and Sunday 8 August 2021.

Recreational signage for both Milford Sound and Deep Cove, Doubtful Sound

At the request of the Guardians Communications Sub-committee, MPI Fisheries Compliance Invercargill is currently working with the MPI Communications team to create and design two similar generic Fiordland Marine Area recreational fishing rules signs (distinguished as North fiord sector and Central-South fiord sector area) for erection at the two main boat ramps/wharf facilities at Deep Cove and at Deepwater Basin. The metal portrait signs can also be affixed inside DOC huts and onto other suitable amenity wharf and barge structures (with the owners' permission) to provide a visual summary of the main recreational fishing regulations applying to the relevant fiord sector area.

Recreational fishing rules

Fisheries New Zealand will continue to support the review of the recreational fishing rules by providing and supporting the regulatory process to facilitate any changes the Guardians may recommend. Fisheries New Zealand will engage and support the Guardians in identifying and facilitating focused Fiordland-based research proposals for the upcoming Fisheries New Zealand Medium Research planning round. This research and associated science will continue to support fisheries management decisions for the Fiordland (Te Moana o Atawhenua) Marine Area.

Thank you to the following for providing photos in this year's report: Chloe Corne, Dave Shaw, Environment Southland, Gavin Tayles, Graham Dainty, Kerri-Anne Edge, Louise Bennett-Jones, Malcolm Francis, Matthew Green, Ministry of Primary Industries, Pania Dalley, Pete Young, Pure Salt, Richard Kinsey, South Sea Spearo, Steff Braaksma, Warren Simpson, Wild Fiordland.

This year's cover image is provided by Steff Braaksma.



The Fiordland Marine Guardians welcome feedback on our work. We invite you to contact us directly with questions or concerns about the Fiordland Marine Area.

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