



Photo credit: Sue Peoples

Te Pānui Kaitiaki o Ata Whenua

In this issue, we reflect on some critical issues, including our proposal for changes to the Amateur Fishing Regulations in the Fiordland Marine Area and our role in the Resource Management Act consenting process as an affected party. We farewell Kerri-Anne Edge Hill, who has served as a Guardian since 2015 and discuss the implications of the record-breaking marine heatwave that struck Fiordland earlier this year. Jen Geange (Biosecurity NZ) provides an update on an exciting development with the Fiordland *Undaria* Control Programme.

Last, we invited Storm Stanley to write about the draft Fisheries Plan for the three southern pāua fisheries, including Fiordland, and the public consultation, which has recently closed.

As always, we welcome your thoughts and feedback.

Who are the 'Guardians'?

The Fiordland Marine Guardians are an advisory committee that works with government agencies and their Ministers to manage the Fiordland Marine Area (FMA). Kerri-Anne Edge Hill was appointed a Guardian in 2015 and is stepping down this November. Over the course of her tenure, Kerri-Anne has been instrumental in engaging the Guardians with the community.

I began by asking Kerri-Anne about where she grew up and her interest in coastal and marine areas.

"I grew up in Whangārei in the 70s and 80s. Naturally, we spent a lot of time at the beach. Though not quite on our doorstep, it was only a dusty, windy car trip away in our Ford Escort. Dad was a surfer and learned to free dive at a young age. Exploring the beaches and coastline was a big part of our family life and shaped my interest in marine wildlife. I studied Zoology at university and ended up specialising in seabird ecology. This work took me to many wild and far-flung places, including the sub-Antarctic and Kermadec Islands. It's fair to say I feel most at home when I'm close to the ocean, more so than anywhere else."

Do you think your experience in Northland has shaped how you regard Fiordland?

"Yes, absolutely. I'll never forget my first visit to Fiordland – I was living in Dunedin and drove to Milford Sound Piopiotahi with my folks... the sheer scale of the place and that feeling of being so insignificant in comparison. And under the water, I guess growing up in Te Tai Tokerau, the areas we spent time at were 'fished out' along the shoreline even when I was young. So, I appreciate how 'intact' the marine ecosystems in Fiordland are."

Based in Te Anau for 20 years, you have the playground of Fiordland on your doorstep. Describe your 'perfect day' on the water.

"It would involve being in a kayak or yacht, mollymawks, penguins, visiting an island with plenty of tīeke and other wildlife and getting in the water for a snorkel. There would be a feed of kaimoana and, perhaps – asking a bit much here – no sandflies, and the weather would be mint."

Hahaha no sandflies, yeah right. Tell me, what do you think is special about the Guardians' approach?

"We are uniquely positioned to provide local solutions to the 'big' problems we need to address. Our ability to succeed, for the benefit of Fiordland and future generations, is absolutely contingent on the Guardians building and maintaining relevance with the communities we belong to."



Has the role been rewarding?

"Being part of this team for seven years has been extremely rewarding. I've been fortunate to build relationships with a diverse range of passionate people, and I believe collectively, we are meeting our responsibilities for the FMA head-on. I won't say it's been easy, but rewarding, yes."

And what do you consider to be the biggest challenges for the group?

"Many of the issues that we work on are very complex. And that is often under-appreciated or not easily understood unless you take the time to attend a meeting or get involved. People naturally focus on what is most important or of immediate concern to them as individuals, businesses, or interest groups. Our role demands that we take a broad and holistic perspective, that we bring people together to find workable solutions, and that we maintain and improve the marine environment, the fisheries, and the experience of people coming into Fiordland. That's a massive challenge! And it requires us to get alongside people and do the work openly and constructively. How you do that when people are so busy and overwhelmed by the myriad of challenges we face today is another challenge! But it's one I'm often up for."

Finally, what is your favourite kaimoana?

"Pāua, hands down. Pan-fried with garlic and butter, you can't get better than that."



Photo Credit: Brodie Philp

Strong turnout to Fiordland fisheries public meetings

From late August to early September, the Fiordland Marine Guardians participated in a series of public engagement events in Southland and Otago focused on our proposed changes to the Amateur Fishing Regulations in the FMA. The meetings were hosted by Fisheries NZ, the lead entity responsible for undertaking public consultation on changes to fisheries legislation. Fish Mainland also attended and spoke about its new self-reporting fishing app 'Mainland Catch'. We were encouraged by the turnout and the level of engagement at these meetings and wish to thank everyone who participated. Fisheries NZ received 114 submissions on the proposal, which are now being reviewed. We are especially grateful to everyone who took the time to submit on our proposal. Overall, we have found the submissions to be constructive and helpful as we develop our final advice to the Minister. **Download 'Mainland Catch' from your favourite app store today.**

Fiordland's record-breaking marine heatwave explained

The summer and autumn of 2022 saw Fiordland bathed in the most intense marine heatwave on record. Recently, Oceanographer Dr Rob Smith, based at the University of Otago, briefed the Guardians on the significance of this event, what caused it, and what we might expect in the future.

The Guardians were interested to hear from Rob following news of the widespread bleaching of sponges in Fiordland. In autumn, researchers visiting Tamatea / Dusky Sound from Victoria University of Wellington – Te Herenga Waka noticed that an abundant sponge species had changed colour. Further investigations led by Professor James Bell determined that the sponges had 'bleached', meaning that their photosynthetic symbionts (smaller organisms living inside the sponges) had disappeared and that this was likely due to temperature stress. We reported more information about this mass bleaching event on our website in June (fmg.org.nz/news).

Rob's analysis of ocean temperature using satellite data detected a record-breaking marine heat wave along the entire West Coast of the South Island. Coastal waters near Te Puaitaha / Breaksea Sound were more than 5°C above average for 135 days spanning late summer and autumn. This heat wave was unprecedented in its extent and duration and unusual as the warmer waters extended down at least 100m. He considers this event was due to La Niña and the Tasman Sea being warmer than usual in the time preceding the heat wave. The frequent north easterly winds likely caused downwelling



Healthy sponge



Bleached sponge

of water against the coast, which led to the warming at depth.

Rob and James are now collaborating on research that considers the implications of marine heatwaves on the water and ecosystems inside the fiords. Marine heatwaves are likely to occur more often due to climate change, so understanding the impacts for Fiordland's marine ecosystems is critical. The solution to ocean warming is far beyond the control of the Guardians, but what we can do is ensure Fiordland marine ecosystems are as resilient as possible to future conditions. This means healthy and abundant native marine life, which we are trying to achieve through our work in fisheries sustainability and marine biosecurity.

The Guardians' role in the consenting process

As the Southland Regional Coastal Plan is reviewed and New Zealand emerges from several years of COVID-related disruption, public interest in managing activity and development in the Fiordland Marine Area is high. Aside from engaging in the Coastal Plan review, the Guardians have a key role in the consenting process that Environment Southland administers under the Resource Management Act (RMA) 1991.

Environment Southland regards the Fiordland Marine Guardians as an affected party for all applications for resource consent in the FMA due to our legislative responsibilities under the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005. Consents are required under the RMA for various activities, including commercial surface-water activities (ie. tourist vessels), the installation of moorings in specified places, and building structures.

For non-notified applications, applicants need to obtain the written approval of the Guardians and other parties that are considered to be affected. In instances where applications are notified, the Guardians provide submissions to council.

As a group, we consider each application with regard to our vision for the FMA, particularly the potential impacts on fisheries, the environment, and the user experience. We bring a wealth of local, cultural, and historical knowledge to our considerations and advice. In considering applications, we often seek clarification from applicants and discuss our concerns. These discussions often lead to applicants making revisions.

We consider that there is a level of development and visitation appropriate for the vast untouched wilderness of Fiordland and that activities and structures need to be consented in a way that maintains these special characteristics.

Consenting issues that are top of mind for us at present

- 1. Refining consents to ensure latent effort is minimised.** Latent effort is the difference between the current level of activity in a consent and what is actually allowed. This might mean reducing the geographical scope of consented operations or ensuring that the consented number of trips allowed by a vessel under a consent is not too dissimilar from the consent holder's annual activity. We are focused on reducing latency in consents as this will enable tighter management of potential adverse effects of these consented activities.
- 2. Ensuring no one sector displaces others.** A good example is recognised anchorages. We want to ensure that in adverse weather, all vessels visiting an area can find a safe haven. Whilst moorings are considered to have a lower environmental impact (in terms of disturbance to the seafloor), they can present navigational challenges in terms of occupying places where vessels can anchor. We need to ensure that all vessels, be they fishing, tourist or private, can be accommodated as visitor demand in Fiordland grows.
- 3. Maintaining the natural character values of Fiordland.** This is a contentious and subjective topic, as by simply visiting an area each one of us impacts these values. The Guardians continue to assess the impacts of all applications on the very aspects that makes Fiordland so precious – the solitude, the wilderness, the silence, the scenic views. We consider whether proposed activities would have an acceptable level of impact in this regard, and whether there are ways the application could be altered to reduce the impact.

Fiordland user's guide

Have you got your copy of the 2022 edition of *Beneath the Reflections* – A user's guide to the Fiordland (Te Moana o Atawhenua) Marine Area? Our guide is packed with information, stunning images, and some essential updates. We encourage people to replace their current copy to ensure you are up-to-date with all the rules and regulations.

The guide is available online at www.fmg.or.nz, or you can purchase a hard copy from DOC's Fiordland National Park Visitor Centre: Lakefront Drive, Te Anau 9600

Phone: +64 03 249 7924

Email: fiordlandvc@doc.govt.nz

Printed copies cost \$25.00 if collected from the visitor centre. Inquire about postage rates within NZ and overseas.





Undaria found in Tamatea / Dusky Sound

The highly invasive marine pest *Undaria pinnatifida*, has been discovered in Tamatea / Dusky Sound, south of Mauikatau / Resolution Island. While we are unsure what this will mean for the *Undaria* work already underway in Te Puaitaha / Breaksea Sound, boaties must continue to be vigilant about marine pests when they travel into the fiords. We strongly encourage you to contact Environment Southland before travelling to the area to find out the most up-to-date information and rules.

Undaria is just one of several highly invasive marine pests in New Zealand waters. We must make every effort to reduce the risk of anything being carried into the Fiordland Marine Area. In the case of *Undaria*, we don't want to hasten its spread by shifting it outside of an infested area.

At the time of writing, Environment Southland biosecurity and biodiversity operations manager Ali Meade said, "We are unsure if the *Undaria* found in Dusky Sound has jumped from our containment zone or if it is a new incursion."

Following the discovery, Environment Southland's scientific dive team undertook a comprehensive dive survey in Tamatea / Dusky Sound to determine the extent of the infestation. This information is being used to make a decision on next steps.

"The latest discovery reinforces just how important it is for all boaties to abide by the rules of the Fiordland Marine Regional Pathway Management Plan to stop pests getting into the pristine waters of Fiordland," Ali Meade said.

The plan requires all vessels entering within one nautical mile of the landward boundary of the Fiordland Marine Area to hold a Clean Vessel Pass and to comply with the clean vessel, clean gear and residual seawater standards.

Fiordland *Undaria* Programme

Environment Southland's scientific dive team has started its second year on the Jobs for Nature – Mahi mō te Taiao funded *Undaria* containment programme. The programme aims to slow the spread of the highly invasive marine pest *Undaria* in Te Puaitaha / Breaksea Sound. Over winter, the dive team also assisted with two marine pest incursions at Rakiura / Stewart Island. Environment Southland has 13 divers on the crew this season, including some new recruits. They are working from the marine vessels *Southern Winds* and *Awesome*.

Do you have a current Clean Vessel Pass?

Applying for a Clean Vessel Pass is a simple process that can be completed online at www.es.govt.nz/fmpp or by calling Environment Southland on 0800 76 88 45 to receive a hard copy form.

2021/22 Annual Report

Read more about the work of the Guardians and our partner agencies in our latest [annual report](#). All of our annual reports can be viewed at FMG.org.nz.



Exciting *Undaria* tool trial in Te Puaitaha / Breaksea Sound underway

Biosecurity New Zealand (the biosecurity business unit of MPI) is investing in research trials of a tool to potentially manage *Undaria pinnatifida* (*Undaria*) in Te Puaitaha / Breaksea Sound.

Local Fiordland operator Pure Salt NZ Ltd has been awarded the two-year contract, which involves commercial divers using surface supply breathing apparatus while operating a suction dredge to remove *Undaria*. The aim is to determine whether this approach is viable for large-scale suppression of *Undaria* growing on natural substrate in the sound.

While Fiordland is mainly free of marine pests, since 2010, Biosecurity New Zealand has been working with Environment Southland and the Department of Conservation to control *Undaria* in Te Puaitaha / Breaksea Sound.

The initial response sought to eradicate what was thought to be a small incursion. However, in 2017 *Undaria* was found to be widespread throughout Te Puaitaha / Breaksea Sound. As a result, subsequent control efforts have focussed on containing *Undaria* within the sound to preserve long-term management options and protect other areas of the Fiordland Marine Area.

Current containment activities rely on the manual removal of *Undaria* by divers from the edge of its current distribution to prevent it from spreading further throughout Fiordland. However, manual removal is costly and challenging due to the isolated nature of Fiordland, limits on dive time, and weather conditions.

Jen Geange, Ministry for Primary Industries project lead, is excited to share this news and for the work to get going. *"Until now, the lack of effective large-scale management tools for Undaria has limited what can realistically be achieved,"* says Jen.

By trialling a promising tool in a real-world situation and at a hectare scale, they are confident they can make solid improvements in the management of *Undaria* in Te Puaitaha / Breaksea Sound.

"This research trial will complement the existing containment measures and Jobs for Nature biomass removal work occurring in Te Puaitaha / Breaksea Sound. And if successful, this tool may be able to be used beyond Fiordland for control of or other similar species where this method would be effective," says Jen.

Plan change – why the Guardians support this move by Environment Southland

Environment Southland has recently completed public consultation on a change to the Southland Regional Coastal Plan (SRCP). This plan is a key piece of policy that sets out the management framework for activities and development in the FMA and beyond. The Council proposed new measures to manage the increase in commercial surface-water activities of charter vessels in the Fiordland waters focused around Section 16.2 of the SRCP, in advance of the wider SRCP review being completed.

The Guardians have been advocating for the council to make this plan change, as we were concerned that well-publicised intentions to make the revised SCRCP more restrictive would prompt a 'gold rush' on applications for surface-water activity consents. In recent years a growing number of applications have come to the Guardians in our role as an affected party. We have witnessed an increasing number of commercial tourist vessels operating in the FMA, particularly in once-remote areas, including Tamatea / Dusky Sound. Vessels are also increasing in size and the length of their operating seasons, which collectively results in a higher level of impact on natural character values, fisheries sustainability and availability of safe anchorage space.

We consider that it is time for the Council to assess the cumulative impacts of this type of operation on the natural character of the FMA and determine a safe and appropriate 'carrying capacity' for the area. Therefore, we support the Council's bold move to enact this plan change and look forward to working with officials as they strengthen the SRCP in the coming months to years.

Fiordland's commercial pāua fishery



As part of our fisheries sustainability review for the Fiordland Marine Area, we are engaging with the commercial sector to discuss fisheries management, particularly in areas that overlap with recreational fishing grounds. Storm Stanley is the Chair of PauaMAC 5, which includes Fiordland's commercial pāua fishery. Earlier this year, Storm gave us a run-down on the state of the fishery and talked about the voluntary measures they've put in place to reduce their catch and their new draft Fisheries Plan. We asked Storm for an update.

Commercial fishing for pāua in Fiordland doesn't have a long history compared to other fisheries such as rock lobster or blue cod. While there was a low level of catch through the late 70s, it was only in the early 1980s that pāua diving the fiords became viable. Before that, the harvest was mostly gathering shell, particularly beach cast. Several hardy blokes had a small industry going and camped out, or lived in caves, along the outer coast collecting shells for the local jewellery market.

The current commercial catch is about 90 tonnes and has been since 2007. Fisheries New Zealand considers that the fishery is in pretty good shape at that level of catch. Our divers' ongoing high average catch rates seems to back that up.

Most pāua is caught on the outside coast, though a bit under 20 per cent is caught inside the fiord entrances, mainly in the higher surf areas. The more expert of our young gun freedivers also work Solander Island, which is

also part of the Fiordland (PAU5A) Quota Management Area, weather permitting.

All harvesting is by freediving, and our divers follow an agreed Annual Operating Plan which specifies such things as a minimum harvest size and other protocols. For most of Fiordland, we fish at a higher size than the current minimum legal size of 125mm. North of George Sound, for example, is a 128mm area, while George Sound south to Te Waewae Bay is 132mm area. At the Solanders, they go for the mighty 140mm fish and above.

We consider catching at a higher size a key management measure to allow Fiordland pāua more spawning seasons before they can be taken; it also helps ensure that aggregations of adult pāua are protected.

This year the industry organisation, PauaMAC5, has applied for Ministerial approval of an overarching PAU5 Fisheries Plan, under s.11A of the Fisheries Act. The [draft plan](#) was consulted on in September–October; it is worth a look at to see what kinds of things we as an industry are considering for future management.

We also have a science fieldwork programme looking at growth rates, age at sexual maturity and some enhancement research. If you see a tagged pāua please leave it in place, as the project results are a valuable resource for researchers and fisheries managers.

For more information, check us out at paua.org.nz





Keeping in touch

As always, the Guardians will work hard to facilitate community-led, proactive approaches that are informed by the best scientific information and knowledge available. We place a high value on the experiences and understanding of the Fiordland community and encourage you to share your thoughts with us. For more information about the Fiordland Marine Area, the Guardians and our work visit fmg.org.nz.

You can email us at info@fmg.org.nz

FMG-AGENCY MEETINGS 2023

NEXT MEETING

Tues 14 February 2023, Waihopai / Invercargill

Agenda Items due by Wed 18 January 2023

Board papers due by Mon 23 January 2023

For more information visit www.fmg.org.nz

All welcome

Our quarterly FMG agency meetings are open to the public and agenda items for discussion at these meetings can be brought to the Guardians. The agenda is set three weeks in advance of a meeting.

Te Pānui Kaitiaki o Ata Whenua is available online at fmg.org.nz or via email.

In the interest of sustainability, we encourage people to opt for an electronic copy. Please [email info@fmg.org.nz](mailto:info@fmg.org.nz) to update your contact details or to switch to electronic communication with the Guardians.

Thank you!

The Guardians would like to thank the following individuals and businesses for the photographs used in this issue: Brodie Philip, James Bell, Mike Ambrose, Louise Bennett-Jones, Richard Kinsey, Storm Stanley, Sue Peoples.



Te Rūnanga o NGĀI TAHU



Biosecurity New Zealand

Ministry for Primary Industries
Manatū Ahu Matua



Fisheries New Zealand

Tini a Tangaroa

Ministry for Primary Industries
Manatū Ahu Matua



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environment
SOUTHLAND
REGIONAL COUNCIL
Te Taiao Tonga



Ministry for the
Environment
Manatū Mo Te Taiao



Department of Conservation
Te Papa Atawhai