

SEAFOOD

NEW ZEALAND



August 2021 | Volume 29 | No. 04 | Issue 269

**Understanding the
deepwater fishery**

**Cawthron looks to develop
science sector collaboration**

The good [fish] oil.

New Zealand's only traceable fish oil.

Derived from sustainably sourced, wild-caught New Zealand hoki, Two Islands Extra Virgin Fish Oil supports mental clarity, skin, brain and heart health. From coast to capsule to you, we are proud to offer transparency of every step in the process, back to the very boat the fish were caught from, to bring you a premium Extra Virgin Fish Oil, sourced from New Zealand waters, in a pure and natural form.

- 100% NZ Fish Oil
- Completely Traceable
- Wild-Caught
- Easy to Swallow
- MSC Certified



Available at
twoislandsco.com

Features

- 20 **Cover Feature:** Well managed deepwater fishery lists considerable achievements and looks for deeper understanding
- 11 Rino Tirikatene – born into politics and fishing
- 15 Cawthron looks to develop science sector collaboration
- 28 Wellington trawler skipper the last of his breed
- 32 Trawl net pioneer decides time to drop anchor



Regulars

- 07 From the Chief Executive
- 08 News: Fishing vessels monitoring ocean temperature changes
- 36 Sustainable Seas: Sustainable mussel spat supply using mātauranga Māori
- 39 News: Introducing our Seafood Liaison Officers
- 41 Southern Seabirds: Next steps – keeping seabirds safe around deepwater trawl nets
- 42 MPI: Building resilient oceans and fisheries for long-term sustainability



- 44 From the President: Challenges abound so make sure you engage and have your say
- 45 Event: Federation of Commercial Fishermen's Conference a huge success
- 47 Best Fish 'n' Chips: Fish and chip fare for all tastes
- 49 Recipe: Outstanding Pāua Fritters



EDITORIALS

Published by Seafood New Zealand Ltd.

Postal Address:

PO Box 297
Wellington 6140
New Zealand

Physical Address:

Level 6
Eagle Technology House
135 Victoria Street
Wellington 6011
Phone: +64 (0)4 385 4005
www.seafoodnewzealand.org.nz



Editorial enquiries:

Email: editor@seafood.org.nz

Advertising enquiries:

Karen Olver
Phone: +64 (0)4 802 1513
advertising@seafood.org.nz

Subscriptions:

Seafood New Zealand is published for the New Zealand seafood industry. It is also available on subscription in New Zealand and overseas. Subscription rates are available on request. Seafood New Zealand is produced bi-monthly (six issues per annum).

Your Say:

Contributions of a nature relevant to the seafood industry are welcomed and industry participants are encouraged to contribute. Letters to the Editor should be signed and carry the writers' full names and addresses.

General:

The reproduction of articles and materials published in Seafood New Zealand, in whole or in part, is permitted provided the source and author(s), as applicable, are acknowledged.

However, all photographic material is copyright and written permission is required to reproduce it in any shape or form. Articles and information printed in Seafood New Zealand do not necessarily reflect the opinions or formal position of Seafood New Zealand Ltd unless otherwise indicated.

All material published in Seafood New Zealand is done so with all due care as regards accuracy and factual content. The publishers and editorial staff, however, cannot accept responsibility for any inadvertent errors and omissions that may occur.

ISSN 1172-4633 (Print)
ISSN 2538-0834 (Online)



In this issue

ISSUE #269:

Welcome to the August issue on the eve of Seafood New Zealand's annual conference, to be held in Nelson later this month.

Our cover feature measures the substantial progress made in all facets of the deepwater fishery since the founding of the Deepwater Group co-operative 15 years ago. Sustainable management and minimising the environmental impact are to the fore.

Our oceans are warming. The commercial fishing sector is a key partner in measuring temperature changes. Twenty four fishing vessels have now been fitted with temperature sensors under the Moana Project scientific programme and there are plans for as many as 300 by the end of next year.

The Cawthron Institute, an essential science provider to the aquaculture sector in particular, is celebrating its centenary and its new head Volker Kuntzsch has ambitious plans.

And we profile three significant contributors in differing sectors of our diverse industry – Rino Tirikatene, from a family with a strong political history, newly appointed as Oceans and Fisheries Under-Secretary; net maker Andrew Hope retiring after a lifetime devoted to fishing; and Stuart Reardon, the last trawlerman fishing out of Wellington.

Mussels are our number one export but the sector remains largely reliant on random spat collection. The Sustainable Seas National Science Challenge is partnering with iwi to draw on traditional knowledge to enhance sustainable aquaculture.

Federation of Commercial Fishermen president Doug Saunders-Loder outlines the many challenges facing the sector and urges members to get involved and have their say on policies that could have a profound impact on their livelihoods.

The best fish'n'chips column heads to Queenstown and our recipe is a delicious take on paua fritters.

And make sure you check out the latest series of Graeme Sinclair's Ocean Bounty, Saturdays on TV3 at 5pm.

Tim Pankhurst
Editor

TO BUILD A BETTER TOMORROW WE NEED TO ACT TODAY

We're the market leader in Sustainable Finance in Australia and New Zealand.*
If you want a partner to help you achieve your sustainable finance ambitions, speak to us today.

anz.co.nz/institutional

*KangaNews AU + NZ Sustainable Bond Cumulative League table – including self-led deals, from 1 January 2014 – 12 July 2021. ANZ Bank New Zealand Limited 07/21 18748



The power of positivity



It has been some time since I last wrote an article for the Seafood magazine and much has happened in that gap.

As an industry we have much to be proud of.

- We have endured the Covid-19 pandemic and maintained our

essential service privileges both through the initial and subsequent lockdowns,

- Our fishing practices are based on sustainability and in general stocks are in good health,
- Exports have been stable even given the collapse of the food and hospitality sectors in some critical markets,
- And the primary sector, of which we are an important part, has justifiably been seen as the engine of the New Zealand economic recovery, while parts of the “new economy” have fallen off the rails.

But we have faced, and continue to face a number of challenges

- The potential loss of property rights through spatial confiscation as proposed by the Sea Change report amongst other proposals,
- A huge legislative change process that will have significant impacts on the seafood and coastal communities,
- Some muddled thinking around decision-making priorities in the intersection of fisheries and coastal management.

And the industry continues to be the target for evangelical “conservationists” through a range of fora, some funded by Crown agencies.

All of us committed significant resource and time to contributing to the Prime Minister’s Chief Science Advisor’s report on Commercial Fisheries – which by and large recognised the important role of the industry and incredibly complex regime we operate under. It offered many recommendations for improvement – all under the current operational framework. Consideration of many of those recommendations has already been undertaken by Seafood New Zealand and other industry bodies. Additionally, it reinforced the importance of the Māori Fisheries Settlement that is woven throughout Fisheries Legislation.

Could we have then expected a pause in our necessary defence of our right to operate – well apparently not!

So how best to proceed? We have just seen the expression of frustration by the farming sector in their

Howl of Protest on July 16. It would seem the “ute tax” was the straw that tipped things into a national protest that was very well supported. It will be interesting to see how the government responds – and whether this placates the anger within the rural community.

And while we share some of the imposts there are a number of particular impacts that we need to consider more than seems to have been to date. There is outrage at the Significant Natural Area (SNA) “land grab” – yet little external concern when spatial “sea grabs” are proposed. The marine estate of Aotearoa is large – but not limitless – and more importantly, not evenly populated with the fish we depend upon. It does remind you of the effects of colonisation and definition of “greater purpose” by the governments of the time, in their confiscation of “underutilised” land. It will be fascinating should the Kermadec marine reserve proposal be reconsidered.

So our response?

It is easy to let the frustration lead the thinking (or overcome it) – but this is not the best response. What the industry is consistently promoting is that.

- we base our decisions on evidence (usually scientific, but guided by observation as well)
- we are well prepared to invest in the people and capital necessary to improve our performance and keep our people safe,
- we welcome improvements to our operational frameworks – but do so on the basis of defined, agreed and sensible purpose.

Where any of those conditions are missing, we will take a contrary view and engage accordingly. Currently I believe that engagement needs to be positive, constructive and carried out in good faith – and the work with MPI in “Opportunity Grows Here” and “Fit for a Better World” plus a range of working groups on technical issues reflect that basis.

A unified industry body needs to represent that continuing expectation of the government and its agencies. The current government has unprecedented mandate in an MMP environment and is pushing an agenda that gives us significant concerns at times. A strong, confident and vigilant industry engagement is necessary to continue to allow us to operate.

The nature of that engagement will be well debated at our annual conference – both internally and with government Ministers and representatives – it would be great to see you there – and hear your opinions.

Kia ora
Craig Ellison

The government’s plan to address problems in the Hauraki Gulf

Dr Jeremy Helson



The Minister for Oceans and Fisheries, David Parker, has expressed a keen interest in terrestrial-based impacts on New Zealand’s inshore waters, something the fishing industry is keen to see advanced.

In this issue, we raise the matter in “*But what about sedimentation?*”, in our reporting on the *Revitalising the Gulf* document, which is in response to the Sea Change report on the Hauraki Gulf.

The issue is not addressed in the Hauraki Gulf document, although a raft of fisheries-related restrictions most definitely are.

Mr Parker says the terrestrial impacts will be dealt with outside the Oceans and Fisheries portfolio, namely, by the Agriculture Minister and the Environment Minister, a portfolio also held by Mr Parker.

We just trust that the rush to restrict fishing activities will be matched by the rush to address sedimentation and population-pressures on the Hauraki Gulf.

The other elephant in the room in *Revitalising the Gulf* is any meaningful attention being given to the impact of recreational fishing.

This cannot be ignored.

This magazine has previously covered the very real impact of recreational fishers who team the Gulf every weekend. Instances of seabird bycatch, flagrant breaking of recreational fishing regulations, and simply reckless behaviour must be addressed, political poison though it may be.

The seafood industry is highly regulated and highly policed, and is already operating under substantial restrictions on its activities in the Gulf. This will soon increase with government announcing onboard cameras for many inshore vessels.

So, we will take our medicine in the mission to fix the very real problems in the Hauraki, however, allowing other issues to slide, while penalising the commercial fishing industry, would be short-sighted.

SEA INTO THE FUTURE

SEAFOOD NZ CONFERENCE | 19-20 AUGUST 2021

RUTHERFORD HOTEL, 27 NILE STREET, NELSON

Fishing vessels monitoring ocean temperature changes

Tim Pankhurst



The science hui attendees.

The Wellington weather showed off for the Moana Project's annual hui to review marine climate research.

A light northerly breeze ruffled the harbour as scientists, iwi, developers and funders sat down for two days at the Kumutoto function centre on the waterfront in late May to update New Zealand's most ambitious ocean monitoring project.

The programme relies heavily on commercial fishing vessels as mobile platforms for temperature sensors to track ocean warming.

It also encompasses traditional Maori lore, melding that knowledge with Western-based science, along with current flows and larval dispersal of three key species – greenshell mussels, paua and rock lobster.

Commercial fishers have embraced the project and 24 vessels across a range of fishing methods were fitted with sensors by mid-year, with the total to rise to as many as 300 by the end of next year.

The collaboration led by MetService's Raglan-based MetOcean Solutions aims to put New Zealand at the forefront of ocean forecasting capability.

It is funded for \$11.5 million over five years through the Ministry for Business, Innovation and Employment's Endeavour Fund and encompasses 54 experts across 14 national and international science organisations.

At home that includes Victoria, Auckland, Waikato and

“Fishing gear is a free ride for sensors, so fishermen are fishing for data and fish at the same time.”
– Julie Jakoboski

Otago universities, the National Institute for Water and Atmospheric Research, Cawthron Institute, Ministry for Primary Industries; Rutgers and Hawaii universities in the US; and the University of New South Wales and the Integrated Marine Observing System in Australia.

The seafood industry is also heavily involved - Seafood NZ, the Deepwater Group, the NZ Rock Lobster Industry Council, Fisheries Inshore NZ, Southern Fisheries Inshore, and the Paua Industry Council are all partners.

Temperature and pressure data are being amassed by high tech, low cost instruments developed by Nelson-based technology company ZebraTech.

The company's founder and managing director John Radford told the hui there were already over one million temperature measurements gathered across 2774 fishing events.

There are two sensors, rated to depths of 200m and 1000m, returning samples every five minutes when static and once every meter to a depth of 200m and once every



The Mangopare sensor fitted to commercial fishing vessels to monitor ocean temperatures.

four meters beyond that when lowering or retrieving.

The combined time underwater is already a year and a half.

“The data is automatically downloaded to a deck unit,” Radford says.

“It is solar powered with a high speed connection to the sensor and data offload in under 20 seconds.

“It currently encompasses longline, netting, deepwater trawl headline, potting and inshore bottom trawl.”

The sensors have been named Mangopare, symbolising strength and determination and leadership.

MetOcean's Julie Jakoboski, the Eyes on the Sea (Te Tiro Moana) team leader, says using fishing vessels as observer platforms is empowering a nation of oceanographers.

“Fishing gear is a free ride for sensors, so fishermen are fishing for data and fish at the same time.”

She says the project has also been processing already existing ocean measurements around New Zealand. That includes paua divers who record ocean temperatures and depths every time they dive through data loggers known as Turtles that are embedded in wetsuits.

Terra Moana sustainability and environmental consultancy principal Tony Craig, a seafood industry veteran and former PAU2 chair for 15 years, is investigating the potential economic impacts of marine heatwaves and climate change on iwi marine fishing and aquaculture interests.

What if snapper moved due to temperature change?, he asks.

The current snapper Total Allowable Commercial Catch (TACC) is 4500 tonnes in the top of the North Island (SNA1) but only 315 tonnes in SNA2.

“You'd be happy in the south, not so in the north,” Craig says.

“The market today is not factoring in risk. The model we're hoping to use would bring back those risk factors.”

He gives the example of the rock lobster catch having been reduced by 150 tonnes on the east coast of the North island (CRA2) due to stock depletion.

With cray quota currently selling for \$1.7m a tonne in Fiordland, even a conservative price of \$1m meant \$150m wiped off balance sheets.

The east coast tarakihi quota has been cut too.

Craig says whether these impacts are due to climate change is not yet clear but Terra Moana is analysing current and temperature changes going back some years to see if there is a correlation between those factors and fisheries performance.

The Moana Project is also aiming to solve another mystery – the source of mussel spat washed up on Ninety Mile Beach that underpins the greenshell mussel industry that returned \$332million in exports in 2020.

Jonathan Gardner, professor of marine biology at Victoria University and a Moana Project team leader, says studies of paua, greenshell mussels/kuku, and rock lobster/koura are seeking to answer where recruits come from, how long they spend in the water column and where they go.

He says larvae are very small, are produced in their millions or billions and are hard to track.

Shell microchemistry, assessing mussels laying down shell, could identify where they came from and their path before settling.

Physical ocean modelling and particle tracking in the Bay of Plenty, Hauraki Gulf, and off Ninety Mile Beach in Northland is also being developed.

“The tendency is to think about larvae being passive particles but there are some active swimmers,” Gardner says.

“This allows different dispersal and we need to think about settlement.”

Regional studies include the Kaikoura paua fishery damaged by earthquake uplift and project partners Whakatohea Maori Trust Board, whose development company founded the first offshore commercial mussel farm, 12km off Opotiki in the eastern Bay of Plenty.

There is also focus on mussel larvae settlement on seaweed washed up on Ninety Mile Beach.

About 80 percent of spat is sourced from this area. Two distinct areas north and south of Ahipara at the southern end of the beach have been identified with little exchange between the two.

Understanding larval dispersal patterns is essential in understanding how populations are connected. This can

inform optimal locations for aquaculture, restoration, fisheries management and conservation.

Moninya Roughan, professor of oceanography at the University of NSW and initiator of the project who first pitched it to MBIE in 2018, said it is still not known what drives the onset of marine heatwaves in New Zealand waters.

The Tasman Sea is warming at one of the fastest rates on Earth, up to three times the global average. The summer of 2017-18 was particularly severe, the sea temperature the hottest on record. Climate change is predicted to make heatwaves more frequent and more severe.

Roughan says New Zealand is fortunate to have two of the longest temperature series in the world. Temperatures have been taken daily at the Leigh marine laboratory for 53 years and at Otago's Portobello facility for 67 years.

Marine heatwaves, defined as five consecutive days when sea temperatures exceed a seasonally varying threshold, were recorded 98 times at Leigh and 136 times



Green lipped mussels being studied off Opotiki in the Bay of Plenty.

at Portobello in that period.

"We can run numerical models backwards and forward in time," Roughan says.

"There is no doubt the seas are warming. We can quantify that."

The project's worth was recognised at a UN World Ocean Day function at Parliament on June 8 when it

was included in the UN Decade of Ocean Science for Sustainable Development (2021 to 2030).

The interest from the UN is particularly around the integration of mātāwhiri with science. Being endorsed by the programme brings increased exposure of the project to international audiences.

MetService chief executive Stephen Hunt, in opening the science hui, says the project will change the understanding of the seas and how we protect our precious resources in it.

"The momentum is strong, you can see the milestones being reached."

He added he had it on good authority the Wellington weather was going to be nice, before a late southerly change.

And he was correct.

Project director and science lead Joao Marcos Souza will review progress in a presentation to the Seafood NZ annual conference in Nelson later this month. ZebraTech's John Radford will also present.

Fishers wanting to learn more or inquire about having a sensor on their vessel can go to info@moanaproject.org

Rino Tirikatene – born into politics and fishing



Tirikatene at Bluff

When Prime Minister Jacinda Ardern had a chat with the MP for Te Tai Tonga after the 2020 election, Rino Tirikatene had no idea she was going to offer him the Under-Secretary role in a portfolio held by one of Cabinet's most capable and busy Ministers. LESLEY HAMILTON reports:

David Parker, heading up the new Oceans and Fisheries portfolio has a workload to make lesser individuals' eyes water. He is Environment Minister, Attorney General, Revenue Minister, and Associate Finance Minister as well, so another pair of hands is justified.

In choosing Rino Tirikatene, the Prime Minister would be well aware the Tirikatene name went back to the very foundations of the Labour Party and its alliance with Māori.

In 1932, Tirikatene's grandfather, Eruera Tirikatene became the first Rātana MP when he won a by-election for Southern Māori. He was told he must support the Labour opposition because the Labour Party had consulted Rātana's supporters when devising its Māori policy. Labour won a landslide election victory in 1935 and was to hold all the Māori seats for the next 50 years.

The Tirikatene political dynasty didn't stop there. "Politics runs in my family. My grandfather was the MP for Southern Māori from until 1967 and my aunt, the late Whetu Tirikatene-Sullivan was a long-serving member for Southern Māori as well and held that seat until 1996. My father was also an aspiring MP. He tried many times to crack a selection pre-MMP days."

And, as a youngster, Rino Tirikatene, was also thrust, somewhat reluctantly, into the political spotlight.

"It was 1996, I was a 23-year-old lawyer and my father was a candidate in what was the first MMP election in the central North Island where they created a fifth Māori seat.

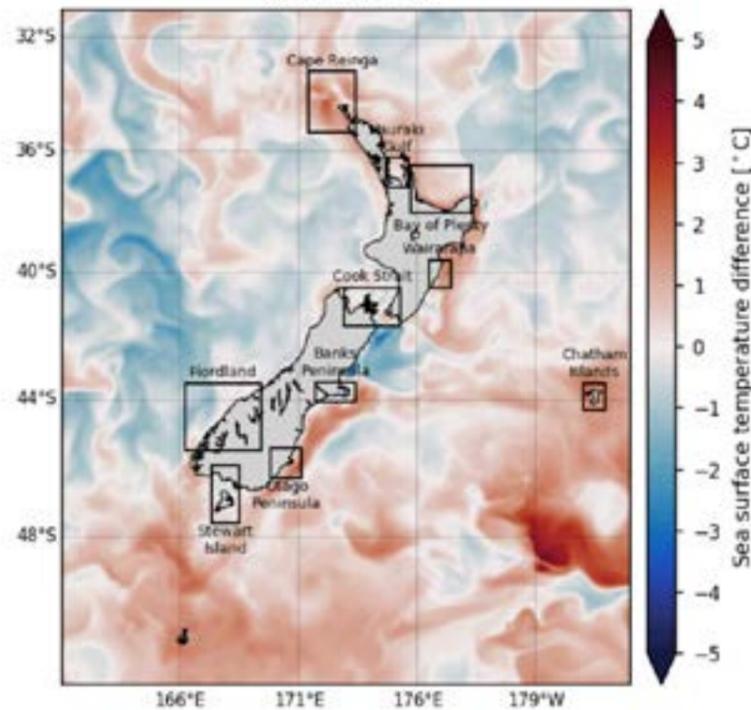
"Unfortunately, Dad passed away just prior to the campaign beginning. That was devastating for our whānau, but our tribal leaders came to us and said they wanted the son to stand. I thought about it and decided I would give it my best shot. I didn't win. That was when New Zealand First stood with the 'tight five' and swept all of the Māori seats."

Tirikatene wouldn't return to politics until 2010, by which time his experience in the seafood industry was well established.

"I was born in a fish and chip shop in Woodend in North Canterbury."

Of Ngāi Tahu lineage, his links with the South Island and seafood remain strong.

Difference between forecast and average long-term sea surface temperatures 2021-Mar-04



Difference between forecasted sea surface temperatures and the long-term average for this time of year. Red shading indicates that the ocean is currently warmer than normal; blue that it is colder.

Mapping sea surface temperature changes.



Tirikatene outside the Māori Affairs Select Committee Room at Parliament

"In my law practice one of my colleagues did work for Te Ohu Kaimoana and when I moved into trade promotions in the 1990s we were in the early days of the Māori exporting sector, which was primarily seafood and other food and beverage companies.

"I was lucky in that I was working with a whole lot of dynamic, tribal leaders – Tā Tipene O'Regan, Robin Hape, Craig Ellison, Archie Tairaroa. There were a lot of rangatira who were leading the Māori fisheries from the settlement through to post-settlement."

Tirikatene remembers his first Māori Fisheries conference well.

"I was amongst all these Māori leaders from around the country and it was pretty mind-blowing for this little pup. And it was the first time I had tasted tuna sushimi," he says.

It was an exciting time to be working with the Māori seafood sector.

"It was pioneering at that time, introducing the companies to export markets, as it was really the first generation of taking Māori fishing globally and promoting the opportunities for our people and our tribal groups."

Tirikatene then moved on to Ngāi Tahu Seafoods, his role to strengthen relationships with iwi.

"We had purchased a business in Wellington, Cook Strait Seafoods, that had operations around the North Island. It was good to deal with fishermen and get around the country with iwi. It was just a continuation of the relationships I had formed earlier in my career."

In 2010, with politics the last thing on his mind, he takes a call from Parekura Horomia and Shane Jones.

"Hey boy. We're looking for candidate to run down south. Would you be interested?"

Tirikatene was reluctant.

"But Parekura sat me down in his office, showed me all the photographs of my whakapapa and convinced me to run. I was fortunate to win the nomination and became the first Maori MP to win back a seat off the Māori Party.

"And here we are, 20 years later, I am just a chip off the Tirikatene block, continuing that work today."

He says it is a privilege to work under David Parker, a senior Minister with huge experience.

"I am just like a big sponge, absorbing everything that is going on in the Oceans and Fisheries portfolio and being that supportive sidekick for him. The industry is incredibly complex, but Minister Parker has a really good grasp on the issues."

Tirikatene enjoys all fishing and has been involved in recreational, commercial, and customary. His electorate covers both Stewart Island/Rakiura and the Chatham Islands.

One of his favourite stories is about the time he went fishing off the Chatham Islands with fellow MPs Annette King, Chris Hipkins and Clayton Cosgrove and caught huge groper.

"It was just a rope and a hook, and some bait and we just kept pulling these monster groper up two at a time and three at a time. They just kept on coming, it was incredible."

Every year, with his uncles, he goes customary fishing for eels on Te Waihora (Lake Ellesmere).

"It's very well managed. There are years when they don't fish because they are conscious of protecting the resource. When you sit up for the hākare feast at a hui there are many delicacies and then you see the eel, the tuna, and you enjoy it more when you know the work that



Fishing at the Chatham Islands, with colleagues Chris Hipkins, Annette King and Clayton Cosgrove



Recreational fishing at South Bay, Kaikōura, with the group's lobster catch

is involved in catching it and looking after its habitat. This has been done for generations and just to participate in this is quite special for me."

There is a small commercial catch of the eels on Lake Ellesmere, and Tirikatene says the customary and commercial fishers work well together.

"The market size for eel is small but for customary use, we look for big eels. So, the relationship with the handful of commercial eel fishers is a good one."

Te Waihora is actually a lagoon that is separated from the Pacific Ocean by Kaitōrete Spit, a 25-kilometre-long sliver of sand which is the site of a proposed aerospace facility. The government has entered into a joint venture with the local hapū, in Little River and plans to use the spit as a rocket launching site. Tirikatene says they will use the income from this to further fund restoration work of the terrestrial environment in and around the lake which has been impacted by runoff.

"So not only catching eels, we are launching rockets."

David Parker is also Minister for the Environment and has highlighted terrestrial run-off as one of his priorities that crosses over into the Oceans and Fisheries portfolio.

"The Minister is paying a lot of attention to the effects of sedimentation and land-based activities on the marine environment. This is a big issue for coastal communities. That and population pressures on the environment are high on his list. It's not solely about fishing.

"But central to our fisheries management regime is

our Quota Management System (QMS), and that is the bedrock upon which all the property rights and the management of the resource sit, and we are just looking to make further improvements to it.

"I love the fishing industry and I love the characters. I have met so many wonderful people over the years.

"My first introduction to fishermen on the Chatham Islands was when I was working for Trade New Zealand and met with Hamish Quested at Moana and in comes this guy I'd never met, waving a shotgun and says, "I hear you're the man from Trade New Zealand - come with me". He then points at a quad bike, tells me to drive him to his house up the hill to have a meeting with him. But first, out comes the bottle of whisky and nothing would be done until that happened."

Sometimes you have to make sacrifices in service of the country.

"I still call Pita Thomas the Mayor of the Chathams and he is still operating his company, Waitangi Seafoods."

Tirikatene says those characters are all over the country and he is delighted to meet them all.

"I am so thrilled to be back in the industry and being able to reconnect."

Tirikatene says Māori need to address succession planning in the industry.

"When I was at Ngāi Tahu, I had a cadet programme to encourage young rangitāni onto a fishing vessel and work under our experienced skippers. It's really tough. You're lucky if one in 10 could stick it out but those who do have had successful careers in the industry. I like the dignity of work and we need to encourage these young people because we need to maintain a vibrant industry."

Tirikatene sees good collaboration in the shared fishery but would like to see more.

"I do not like the antagonism between the sectors, and I hope that is something the government can look at as part of its work programme," he says. "It's always the case when someone can't catch a feed of fish to want to blame the other guy. But we are seeing good models of cooperation between the sectors growing around the country. Te Korowai in Kaikōura, Fiordland Guardians, and the Springs Box voluntary closures over the Hawke's Bay summer. Everyone wants the same thing, a healthy fishery. We should spend less time blaming each other and more time talking."

And what legacy would he like to leave?

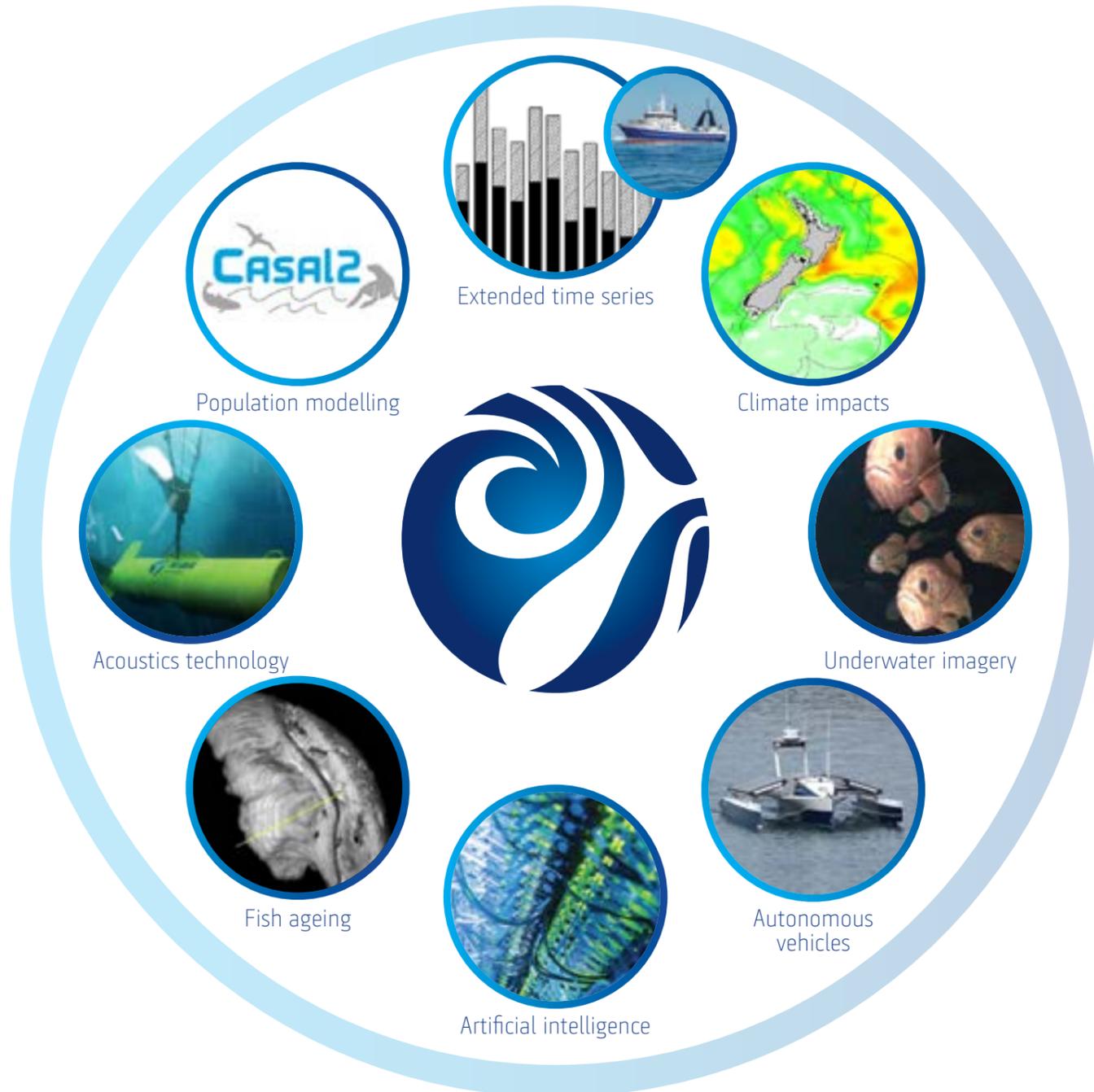
"I would really like to see the solutions to issues that have been plaguing the industry. I would really like to see some of those things ticked off the list while I am in the role. I would particularly like to lay the groundwork for exciting new areas such as open sea aquaculture, seaweed and nutraceuticals.

"There are some big decisions coming up and when we get there, I want to know that we have made the best decisions in the interests of all New Zealanders."

NIWA FISHERIES

Innovative science since 1995

We provide tailored research, tools and expertise to inform the effective management of New Zealand's resources



Contact us

www.niwa.co.nz

Richard O'Driscoll, Chief Scientist
richard.odriscoll@niwa.co.nz

Cawthron looks to develop science sector collaboration



Cawthron's salmon efficiency research programme is showing promising results.

Volker Kuntzsch is leading the Cawthron Institute into its second century. TIM PANKHURST reports:

As the Cawthron Institute embarks on its second century, there is no shortage of ambitious projects.

Former Sanford chief executive Volker Kuntzsch took over as the institute's head in March and has hit the deck running.

He is promoting establishment of a science and technical hub in partnership with the Port of Nelson catering for up to 1000 knowledge workers.

The project has Nelson City Council backing of \$5 million and would be sited on a former log storage area at the port. Current elderly laboratories at Cawthron's Halifax Street site would be relocated here.

Where a commodity product was once stored before export and value added overseas, an innovative hub

would attract innovators and entrepreneurs from around the world.

"It's all about bringing innovative capability together," Kuntzsch says.

"If you had NIWA and Plant & Food and Cawthron plus commitment from other companies, imagine how attractive that would be as a research-driven environment."

Kuntzsch is big on collaboration.

He believes the current model where science organisations compete for funding from the Ministry of Business, Innovation and Employment (MBIE) is inefficient and wasteful.

"Competition for funds is fierce," he says.

"We spent over \$1 million preparing bids for the last round in an environment where others are doing exactly the same. Only one in 10 is successful on average. There must be a better way.

"And that is in a context where investment in science



Aquaculture technicians Dominique Cronje and Isaac Cooper monitoring gourmet algae feed.

in New Zealand is only about half the OECD average as a percentage of gdp.

“The future is all about making science relevant for a country so far away from markets.”

The Prime Minister’s Chief Scientist, Dame Juliet Gerrard, made a similar point in her recent report on the future of commercial fishing in New Zealand.

“Relationships between researchers looking at different aspects of the marine environment, housed in different

institutions, mirror the poor relationships in the sector as a whole,” she said in a foreword to the extensive report. “A lot of energy is wasted trying to deconstruct an opposing narrative, which could be better spent coming to a shared understanding.”

“The future is all about making science relevant for a country so far away from markets.”

– Volker Kuntzsch

Kuntzsch is keen to establish more predictable income streams to guarantee support for the institute’s 300 scientists and technicians and their programmes and an annual \$45 million budget.

One potential breakthrough is a micro algae that could be a replacement for highly addictive opioids in anaesthesia.

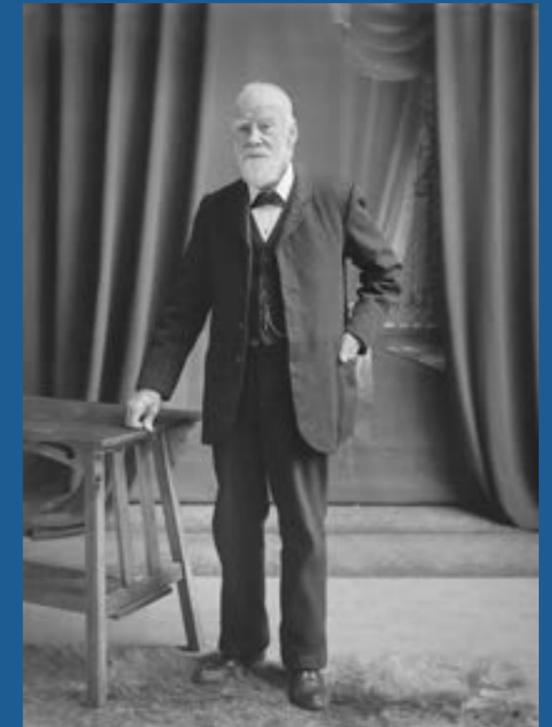
Cawthron holds the world’s largest live micro algae collection and is at the forefront of isolating biotoxins in algal blooms that could have medicinal properties.

A successful clinical trial on a potential long acting local



Mussel cultivation at Cawthron’s Aquaculture Park. Image: Tim Cuff

A lasting legacy



Benefactor Thomas Cawthron, Image: Nelson Provincial Museum.

A quarter of a million pounds was a lot of money a century ago.

That was the sum bequeathed by Thomas Cawthron to establish and maintain an industrial and technical school institute and museum in Nelson, less 40,000 pounds snatched by the Government in stamp duty.

It was the single largest bequest made in the Dominion at that time and set what came to be known as the Cawthron Institute at the forefront of agricultural science.

Cawthron opened five years before the Government’s Department of Scientific and Industrial Research (DSIR) and soon proved itself in providing science needed to underpin the country’s developing primary industries.

British-born Thomas Cawthron came to New Zealand with his family aged 15 and made his fortune on Australian goldfields and as a shipping agent and trader in this country. He also co-developed a coal mine near Nelson and worked on the Dun Mountain copper mine.

He returned twice to Britain, where he died in 1915, and despite his lack of formal education,



Chief executive Volker Kuntzsch looking to secure Cawthron’s future.

anaesthetic has been conducted in the US in conjunction with two top institutions.

Funding of US\$30-40 million has been sought to move to phase two trials in the US but this has been hampered by Covid restrictions.

The intention now is to seek funding in this country. “This is our moonshot,” Kuntzsch says.

Another project offering great potential is the development of an additive to cattle feed which suppresses methane emissions.

Red seaweed (asparagopsis) is a wild source but it requires harvesting of large volumes.

“There is a bit of a gold rush feeling but the supply chain doesn’t exist yet,” Kuntzsch says. “We need to develop the science and the supply chains.”

Two projects that are more immediate are developing greater salmon feed conversion efficiency and unlocking the potential of open ocean aquaculture. Both are supported by MBIE’s Endeavour Fund over five years.

Analytical services including marine and freshwater testing, seafood safety and biosecurity are ongoing.

Kuntzsch believes there needs to be more conversation around a different approach to value creation.

The development of synthetic-derived foods, animal welfare concerns, fossil fuel burning, use of materials and environmental impacts will all come under greater scrutiny.

“Things can avalanche quite quickly,” Kuntzsch says.

“Look at plastic bags in supermarkets. We talked about it for a while and suddenly they are all gone.

“In the EU from yesterday single use plastics such as straws and polystyrene trays are banned.”

saw the importance of the development of science and technology.

Britain was made wealthy by its Empire but experienced fresh food shortages.

Cawthron had the foresight to believe the undeveloped country that was New Zealand, comparatively poor financially but rich in food, land and employment, could have the best of both worlds.

Fortunately for Nelson, he was a bachelor and neither he nor his two brothers had heirs.

His generosity was directed at more than his science institute and included support for the acclaimed Nelson School of Music; the granite steps and landings before the handsome Cathedral that overlooks Trafalgar Street, the main artery of the city; the public hospital; the nurses' home; and even an extension of the distinctive chain links on Rocks Road.

The prosperous sunny city that sits at the mouth of Tasman Bay owes much more to shy, modest, shrewd Thomas Cawthron than it does to the 19th century naval captain it is named after.

After his death, Cawthron's legacy was enacted by a local group of trustees.

Maintaining a privately endowed research organization in the following decades that sat alongside but separate from the central government science framework was a challenge and funding and survival came to dominate as much as research.

That changed in the 1990s when the DSIR was disbanded and Crown Research Institutes created that competed for funding.

The Cawthron trustees, directors and staff were able to re-invent the institute and also attract support from industry, particularly in the burgeoning aquaculture sector.

This drove expansion, including the development of the Glenhaven Aquaculture Park on a 20-ha site at the Glen on Tasman Bay just north east of Nelson.

The first stage of a national algae research centre was opened at the aquaculture park in May, boosted by \$6m from the Provincial Growth Fund.

The institute is a charitable trust that has its own Act of Parliament and an unusual governance structure.

Trustees include the Nelson MP, the Nelson and Tasman mayors and the Bishop of Nelson. Businessman John Palmer is the current chair.

The trustees appoint a board of directors. The current board chair is Meg Matthews, former World of Wearable Art head.



Cawthron's expansive Aquaculture Park at Glenhaven near Nelson.

These issues raise the question of the impact on seafood.

Kuntzsch sees selling the New Zealand story as essential to success in competing in international markets where there are alternative products.

Cultural identity is central to that, with the development of vision matauranga where traditional knowledge and practices are encouraged.

Kuntzsch is revelling in the move south from Auckland and has been welcomed by the community.

His daily commute from home is four minutes by bicycle, compared with 35 to 50 minutes driving in heavy traffic in Auckland.

After seven years as Sanford CE in the often controversial and disputatious seafood industry, burdened with shareholder and director demands in a high profile public company reporting quarterly, the move to a purpose driven science-based organisation is a boon.

He is relaxed and looking much younger than his 57 years.

"I started as a scientist working in industry (he holds a Master of Science). I now have the opportunity to apply what I learned in industry to science."
– Volker Kuntzsch

He was shoulder tapped for the role, succeeding Prof Charles Eason, and has taken a substantial pay cut but he is almost evangelical about his new post.

"Cawthron's purpose is world class science for a better future.

"I started as a scientist working in industry (he holds a Master of Science). I now have the opportunity to apply

what I learned in industry to science."

He and wife Jodie have a daughter Amelia, 2, as well as their five children from previous marriages.

Amelia featured in a keynote address Kuntzsch gave to a Chamber of Commerce Aspire conference in Nelson last month.

His theme was courage – the courage to carry on in the face of adversity and the courage to make a difference.

He spoke of the loss of his first wife and young daughter in a car crash and the gift of another young daughter.

"I want her to live in an environment at least as beautiful as now. We know it's going to be difficult.

"But rather than saying: 'Dad, what have you done?', I want her to be able to say, 'Thank you, Dad, for what you have done.'"

The address drew a standing ovation from the crowd of 300 and hugs and tears from some, including Nelson businessman Pic Picot, wellknown for his peanut butter brand.

"I was incredibly moved," he says.

"I was sitting in the second row and I was in tears and I stood up and applauded. Half the audience did too.

"It was his preparedness to talk about dealing with

personal trauma. He also wasn't afraid to say he had done really good work, that he can inspire people."

That resolve will be put to the test as Cawthron sets to secure its future.



Aquaculture technician Michael Scott working with live salmon.

Sunderland Marine
 Fixed Premium Insurance from North

Fishing, Coastal and other Specialist Vessels Insurance

Expert & Personal

Choose the market-leading fixed premium marine insurance provider and benefit from our flexible policies, unrivalled expertise and established industry relationships spanning decades.

Tel: +64 (0)3 546 8830
 Email: chris.barrett@sunderlandmarine.com
www.sunderlandmarine.com

Well managed deepwater fishery lists considerable achievements and looks for deeper understanding

The Deepwater Group, founded 15 years ago, aims to be recognised as the world's best managed deepwater fisheries. TIM PANKHURST reports:





Thomas Harrison heading for port. Image: Terry Hann

There is as much fiction as fact when it comes to many reports on fisheries, long serving Deepwater Group chief executive George Clement says.

"It is important that we balance the negative rhetoric with the science-based reality."

The Deepwater Group, comprising 45 shareholders who collectively own 91 percent of the quota for deepwater fisheries, has done just that with the production of a comprehensive report summarising progress in the 15 years since inception.

Titled 'Towards a Deeper Understanding', the report details considerable achievements across fisheries management, environmental care, science, effective relationships and shared work programmes, enhancing reputation and verifying performance against world's best practice.

Go to tiny.one/DWG2021 to read the full report.

The group's goals are lofty – its vision is "to be trusted as the best managed deepwater fisheries in the world".

"To independently validate our fisheries management performance, we have had New Zealand's deepwater fisheries for hake, hoki, ling, orange roughy and southern blue whiting assessed against the high science-based

environmental standards set by the Marine Stewardship Council (MSC)," Clement says.

"These independent assessments demonstrate that New Zealand's ecosystem-based approach in the management of these deepwater fisheries ranks amongst the top five percent of the best managed fisheries in the world."

Around two thirds of the catch from New Zealand deepwater fisheries is now MSC certified with more in train.

"MSC certification provides reassurance to our seafood customers in New Zealand and globally that our fisheries operate to the very highest standards of environmentally sustainable management," Clement says.

"MSC certification is not easily achieved and it is not permanent, having to be renewed every five years. Our shareholders are incentivised to continue to do what is right to ensure we are managing these fisheries for the future and can continue to meet these standards. Annual audits assess continued performance against the standards.



George Clement

"Our role is to

Benthic Protection Areas and Seamount Closures

When implemented in 2007, these large BPAs constituted

24%

of the total area managed under Marine Protected Areas in the world.

BPAs and Seamount Closures collectively protect:

71

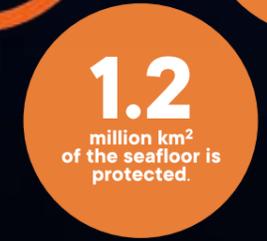
Seamounts. Underwater features with heights of 1,000m or more. 50% of total within New Zealand's EEZ.

93

Smaller Underwater Topographic Features. Known as hills and knolls. 28% of total within New Zealand's EEZ.

23

Hydrothermal Vents. 88% of total within New Zealand's EEZ.



Committed to Healthy Oceans Sustainable Fisheries



George Clement with the Prince of Wales

proactively ensure these fisheries resources are well managed to provide for present and future generations. One example is the agreement by hoki quota owners to reduce their catch by 20,000 tonnes in 2019 in response to changing patterns observed in three hoki fishing grounds. Quota owners have subsequently agreed to additional catch reductions of 35,000 tonnes to further improve hoki stock size, reducing the catch limit from 150,000 tonnes to 95,000 over three years.

"A couple of good spawning seasons will pave the way for good hoki stocks in two or three years. Hoki is a relatively short lived, fast growing and widely distributed fish but our quota owners know to keep a close eye on shifts in productivity, which can vary greatly between years due to variable environmental conditions."

These realities are not widely understood and the strident anti-commercial fishing lobby has been quick to seize on any reductions in catch as alleged evidence of fisheries collapse.

"One thing we did not do well when setting up the Quota Management System in 1986 was to clearly signal that with all new developed fisheries, quotas will always come down as surely as night follows day, as you move a fish stock from the higher unfished size to a lower size to optimise yields," Clement says. "In the initial years higher catches are available than are sustainable over the long term."

"To most NGOs decreases in quota occur only because of bad management; ipso facto overfishing; ipso facto out of control; ipso facto the planet is going down the gurgler – we are all going to die and it is a dark and gloomy place we live in. Many have, understandably, gone on believing that orange roughy for instance is still overfished, when in fact the large quota cuts progressively implemented during the 1990s

and early 2000s reduced the annual catch from 55,000 tonnes in 1989 down to 5,300 tonnes in 2013. These deliberate management measures, have proven effective in restoring stock sizes to their most productive levels. Stocks have progressively rebuilt in size and the annual catch has been increased to 10,000 tonnes.

"Maintaining fish stocks at sustainable levels is the essence of our strategic plan. It has to be, because if we fail here, we fail to protect the jobs for around 6000 New Zealanders and we will fail to annually produce an estimated 700 million natural and nutritious servings of seafood."

Major deepwater quota holders Sealord, Talley's and Sanford all say the group has been critical in developing a cohesive approach.

Sealord chief executive Doug Paulin says that while Seafood New Zealand represents a more holistic view of seafood, the Deepwater Group's strength has been in providing factual, technical expertise.

"They are very good at hiring good people with good knowledge," Paulin says. "There is technical expertise if we're required to have robust debate with government but it is relatively collegial most of the time."

"With MSC, I doubt those programmes would have occurred without the wider focus and they benefit the whole of industry."

Other achievements were the introduction of Benthic Protection Areas (BPAs), ground breaking at the time, and industry's conservative approach to deepwater TACCs, adjusted according to fluctuations in stocks. BPAs close around 30 percent of New Zealand's EEZ to bottom trawling, most of the closed area is unchanged by human activities and is broadly representative of the range of marine habitats.

Paulin says the industry does need to make the public more aware of its activities and actions.

"Our role is to proactively ensure these fisheries resources are well managed to provide for present and future generations."

– George Clement

"Saying we are doing well won't be enough. We need to be more open and transparent with the facts and data."

"Cameras will be a big change, a level of transparency we've not had before."

"We support cameras in concept, the devil is in the detail on how they are brought in."

Sealord, with 1100 employees and a turnover of \$480 million is Nelson's biggest private employer.

Three years ago Sealord commissioned a state-of-the-art factory trawler Tokatu, costing \$75 million, and is

looking at investing in another build later this year at an approximate cost of \$95 million, reflecting its confidence in New Zealand's deepwater fisheries.

Talley's chief executive Tony Hazlett says the Deepwater Group allows the industry to speak with one voice "and get stuff done".

"It allows us to manage the fisheries and to speak politically as one. It has never lost its focus about acting in the best interests of the whole industry and New Zealand's valuable marine seafood resources."

"The quota is well managed but we need to get buy-in from the public that we are managing our fisheries well."

"Environmental concerns and bottom trawling are going to define us in the next five years. We are at risk of people not understanding bottom trawling as a fishing method and of over-reacting. I think the regulators are buying into this argument."

"We're not ploughing through fields of coral. We're not doing all the things we're accused of. We're not having the impacts that some people claim."

"What we are seeing is a continuation of improvements in fishing methods and techniques that will minimise our impacts."

Sanford is also an active member of the group.

"By acting together with Fisheries New Zealand, speaking up when the science doesn't appear to match what we're seeing out on the water, we can all work

towards a better outcome for the deepwater fisheries," general manager fishing Colin Williams says.

Natural seafood, with its comparably small footprint, increasingly stands out as the environmental costs of protein production coming under closer scrutiny.

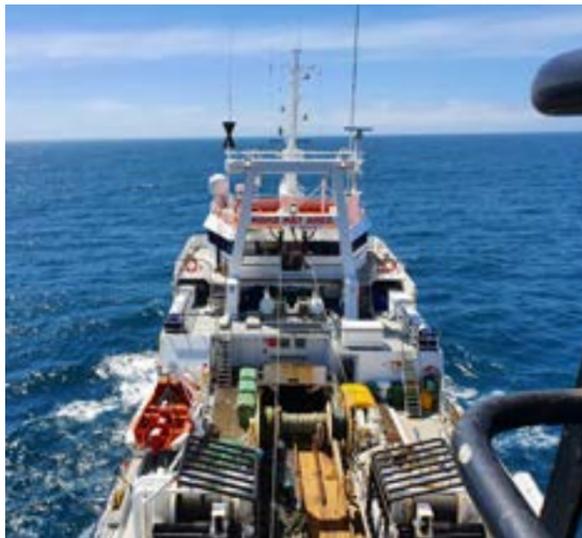
"Natural seafood looks after itself – no feeding, fertilisers, pesticides, herbicides, drenches or antibiotics are required – all we have to do is harvest it in an environmentally responsible way," Clement says "Unlike farming on land, there is no wholesale loss in natural biodiversity either. Wild caught deepwater fish are truly an environmentally sustainable, natural and healthy food source."

"The fuel consumed during harvesting of deepwater fish is a significant component of our carbon footprint. We have progressively reduced this through using fewer and more efficient vessels and fishing practices. Since 2005, the number of deepwater trawlers in New Zealand has decreased by 47 percent and the number of trawl tows has decreased by 38 percent, while the annual harvest has remained steady at 325,000 to 350,000 tonnes."

Clement says the group remains committed to honesty and transparency about their practices at sea. No other primary industry has its environmental performance and operational procedures so closely monitored and audited by government observers during harvesting and processing.



Independent's Mainstream heading out of Lyttelton



Sanford's San Enterprise

About half the total tows by the deepwater fleet are observed annually, with up to 100 percent in fisheries where there is a high likelihood of interactions with seabirds or marine mammals, such as the Southern Ocean squid fishery.

Vessel management plans and operational procedures have been developed and implemented to reduce threats to marine life and these are audited by the regulator, Fisheries New Zealand, and the results publicly reported.

A National Deepwater Fisheries Plan further sets out goals and responsibilities to maintain healthy fish stocks and minimise the impacts of deepwater fishing activities on the marine environment.

There has also been significant investment in science and monitoring. Each year deepwater quota owners invest between \$15 and \$22 million towards the Government's costs for the management, science, monitoring and compliance of New Zealand's deepwater fisheries. Quota owners additionally directly invest millions of dollars into more science and research to support the sustainable harvests from deepwater fisheries.

This has particularly applied to orange roughy, deep dwelling, long lived and once mysterious fish. When MSC certification was first sought, there was insufficient science to meet the required rigorous standards.

Since 1998 quota owners have directly invested more than \$20 million to fund additional science work on orange roughy. Most of this has centred on new acoustic survey methods and a new stock assessment approach. Industry has directly contracted 32 acoustic biomass surveys of roughy stocks in addition to four surveys delivered under contract to Fisheries New Zealand to inform fisheries management decisions. A further

\$11 million is forecast to be spent over the next five years on habitat mapping and assessing the impacts of bottom trawling to support the continued sustainable management of roughy.

"The New Zealand seafood industry is full of passionate, inventive and resourceful people who are natural problem solvers with an inherent conservation focus," Clement says.

"By conservation we mean wise use that keeps our marine resources secure for future generations. We back ourselves, supported by New Zealanders, to keep the deepwater marine ecosystems intact and healthy while continuing to deliver sustainable and healthy seafood to our customers, locally and internationally."

Clement, an entrepreneurial scientist (marine biology with honours) has been the driving force for a united deepwater fishing industry since 1992 and has been the group's head since its inception in 2006.

He initially turned the role down, saying behaviours of some operators had to improve if the sector was to be the world's best.

"My view was that if you can't show what's happening at the back of your boat on national television, then you've got a problem that you need to fix. Our role is to identify and to fix problems."

This particularly applied to seabirds, which were being harmed to an unacceptable degree.

Once aboard, Clement led the drive to develop and deploy new effective mitigation measures to greatly

"The fuel consumed during harvesting of deepwater fish is a significant component of our carbon footprint. We have progressively reduced this through using fewer and more efficient vessels and fishing practices."
– George Clement

reduce seabird fatalities. Many of these approaches have since been adopted elsewhere in the world as leading international best practice.

A coalition of interested parties, including environmental NGOs, government departments and commercial and recreational fishers formed Southern Seabirds Trust which continues to raise awareness of the need for all to look after seabirds and to reduce interactions with fishing vessels.

Clement's influence was recognised by his appointment to the Prince of Wales' Charities International Sustainability Unit's Marine Programme to

identify improved sustainable fisheries outcomes globally and, in 2009, by the Listener magazine in their list of the most influential New Zealanders. He came in at number three in the environment section, which was headed by then Conservation Minister Nick Smith.

The citation said in part... "the fishing industry has a pretty chequered environmental record but George Clement is seen by many as a key player in encouraging the sector to lift its game. There's still a very long way to go in greening the fishing industry but Clement is regarded by many as pivotal in making the industry understand that good environmental practice is good business."

Clement says that applies even more today but, happily, the industry has made great strides in acting responsibly and minimising its environmental imprint.

"Over the past 15 years, our shareholders have charted a course that has resulted in much needed sea change in both attitudes and performance. The real credit for the outstanding management performance of New Zealand's deepwater fisheries must go to our shareholders who have worked together to realise their vision of being 'best in the world'. These seafood companies have supported and funded some innovative and, at times, wild developments that have included: mapping large areas of the seabed; developing new acoustic and stock assessment approaches; contracting leading genetic studies; and using their practical experiences to develop and deploy effective mitigation measures to reduce interactions with seabirds, sea lions, fur seals and dolphins. Without their enthusiasm, support and ongoing commitment to fund, none of this would have been possible. Our endeavours have been ably supported by managers within the Government and by some of the best fisheries scientists around the world.

"New Zealand's deepwater fisheries are truly sustainable."



Solander's Tomi Maru 87. Image: Chris Howell

Longlining gear that's more than a little handy...



FROM \$69,000

Introducing the Handy Mag, an automated hook and line delivery system that makes it easy to deploy and recover line at speed.



The Mustad Autoline HandyMag storage system is designed to fit on smaller vessels, from approx. 30 feet and above. With focus on the functionality on board, the system is simple and easy to operate, and requires minimal space.

Visit us at Beuline.nz for all the info and support you need to step towards automation.

FISHING TOWARDS THE FUTURE
BEULINE



Wellington trawler skipper the last of his breed



Winbill skipper Stuart Reardon at Waterloo Quay on the Wellington waterfront.

Stuart Reardon is the last trawlerman fishing into the heart of Wellington. TIM PANKHURST reports:

In a lifetime of fishing Stuart Reardon reckons he has used up about six lives.

Like a cat, he may have three left but time is running out.

Aged 66, with a body that is feeling the rigours of 45 years of hard labour at sea, he is the last trawlerman fishing into the once bustling fishing port of Wellington.

He is still wiry and strong but the nerves on his fingers are raw, sensitive to salt water and slippery fish, and one of them is missing, amputated after it became gangrenous due to a fish spine under the nail.

He skips *Winbill*, owned by Wellington Trawling Company principal Tony Basile, fishing into the

Seamarket in Cuba Street.

The main target species is tarakihi, Wellington's go-to fish, trawled from the fresh, clear Cook Strait waters around Baring Head, Cape Palliser and along the southern Wairarapa coast.

It is usually a three-day turnaround and the fishing is good. Reardon rates it as good as he has seen in his long career.

It is a slick operation that serves the Wellington market well from the Cuba Street base and a second retail outlet in Lambton Quay.

The fish are chilled in an ice slurry as soon as they are caught, unloaded at Waterloo Quay in the heart of the city, processed and on sale the same day.

Reardon has fished for the Basiles for more than three years, almost a record in an at times turbulent career across a multitude of vessels.

He gets on well with the family and deals closely with



Stuart Reardon with crew Mark Jennings (left) and Kelvin Thomas.

Tony Basile and his son Dion and the staff.

He and his two-man crew, currently Kelvin Thomas and Mark Jennings, are on 30 percent of the catch after expenses and say they are treated fairly.

The respect is mutual.

"He's a good man," Tony Basile says of his skipper.

"That's all I can say."

Winbill has sufficient quota to fish all year round.

"After all these years I reckon the fishing has got better," Reardon says.

"We always get a bag somewhere. There is not a lot of pressure on this area now.

"A lot of recreationals will say different but that is the case.

"We had a shot in Palliser Bay. Normally you will get one or two cases of snapper on the west coast. We had 65. It was all snapper. We've never had snapper like that before. The currents are warming up."

On this early winter morning sitting in *Winbill's* neatly kept wheelhouse, Reardon has returned a day early in the face of a solid southerly with another good catch.

The swells were big – six metres – but with little wind at first and in two-and-a-half days they landed 200 cases of tarakihi (about six tonnes), with some hapuku, rig, skate, red cod and gemfish for good measure.

"My experience is on the mud," Reardon says.

"We don't tow over three hours, the fish are in better condition that way. The tarakihi are big. We've never not got tarakihi there.

"We are not seeing any sign of depletion. A lot of that is that the boats are not hammering it all the time. Brian Kenton's *Bicante* goes up to Turnagain but we've pretty much got it to ourselves."

In the early 1980s Reardon supplemented his fishing as a part-time barman at the working man's watering hole, the Waterloo Hotel across from the wharves opposite Wellington Railway Station when the weather was bad.

It was a hard case, hard drinking venue where railway

workers raffled sugar sacks of water cress.

He was working there in 1981 on the day of a mass Springbok tour protest when a huge brawl broke out in the public bar.

"The protesters came in one door and the pro-tour rugby crowd another. Fists were flying. There was a lot of broken glass and a lot of fighting. We pulled the grill down over the bar and served the beer through it."

Back at sea, he went pair trawling on *Seaway* out of New Plymouth and then bottom longlining on *Fellowship* with Dick Williams, taking the boat down to Greymouth from Auckland.

On July 13 of that year, a black Friday, he used up at least one of his lives.

He was mate on board *Sealord II*, a stern trawler skippered by Barry Gardner with five aboard, when it approached the notorious Grey bar in a huge sea with a full load of hoki – 40 tonnes plus.

Cascade had already made it in as *Sealord* followed, taking a couple of big waves over the stern.

The river was in flood and it took half an hour labouring from the entrance to the turn into the shelter of the lagoon.

That was when the motor stopped. The anchor was dropped but it could not hold in the fierce current and the vessel went out sideways through the breakers. The anchor then held but not for long. There was a boom



A good catch off Baring Head on the edge of Cook Strait.



The hands of a hard working fisherman, minus a gangrenous finger caused by a fish spine.

as the chain snapped and the vessel was pounded as it drifted on to Cobden Beach.

A rescue helicopter arrived and three people were taken off one at a time in a lowered net.

On the fourth pass, the net and chain wrapped around the stricken vessel's mast and the pilot dumped it before his machine was dragged into the sea.

Reardon had to clamber up the mast and free the net. He managed to do so but once the net was reattached he jumped into the sea, preferring to be plucked from the water rather than the heaving boat.

“We don't tow over three hours, the fish are in better condition that way. The tarakihi are big. We've never not got tarakihi there.”

– Stuart Reardon

Two days later on the Sunday, the crew used up another life.

Headed to Christchurch in a Mini, they stopped for a session in Jackson's Hotel. On the west side of Porter's Pass they ran into a snow wall. They were picked up in a Land Cruiser but crashed into the back of a car in whiteout conditions. A Ministry of Works truck with a snowplough then smashed into them from behind.

“That was a weekend to remember,” Reardon says.

“We thought it was just a joke.”

It was not so funny when he was lost overboard on *Grace Mary* gill netting for ling in the Hokitika Trench well offshore.

It was pitch black in the middle of winter when some retrieved gear was being transferred to another vessel, *Souvenir*.

The other boat came in too close to the stern and a

rope out of the net spreader caught Reardon in the chest and flung him into the sea.

He was still hanging on to the rope when he came up, bobbing like a float in the frigid water.

The crews could not see him in the dark but guided by a light by the hydraulics he was able to swim 30 metres back to the boat and was hoisted aboard, shivering and shaken.

“It's been an interesting fishing life,” he says in masterful understatement.

Following the *Sealord* sinking, he got straight back on the horse in the form of another Gardner boat, *Lady Dorothy*.

Then it was on to Joe Gilman's *Buchaneer II* for the tuna season and then Bob Fishburn's *Towai* longlining for ling.

In 1987 Reardon did his coastal master's ticket and second class marine engineer and took over his first vessel as skipper – Steve Winchester's *Silver Foam* trawling for flats down to Jackson's Bay.

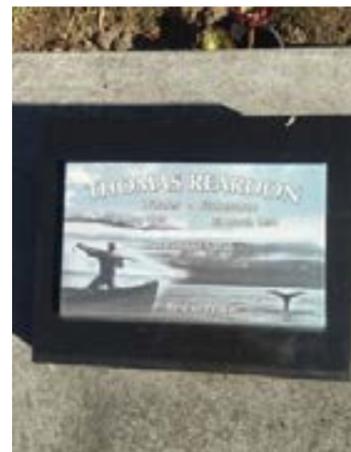
Following his *Grace Mary* dunking he chased tuna board *Golden Star* for *Sealord* and then ran *San Constanzo* for Tom Fisburn out of Greymouth, trawling and tuna fishing.

He twice won the Silver Watch Prize – a Rolex – for biggest tuna.

He was hit by a big storm, 75 knots of sou'west in Bruce Bay, and brought the damaged *San Constanzo* back to Greymouth and transferred to *Marconi ...* a good sea boat, the crew were tremendous and we delivered good loads of fish into Talley's”.

Ned Smith's *Liberator* was next after a couple of years.

He admits he was a tense, demanding skipper and went through a lot of crew. He regards drugs, methamphetamine in particular, as a scourge and refuses to let anyone cross a yellow parking line on the wharf to his boat if they are suspected users.



The grave of Stuart Reardon's whale catching ancestor at Kaikoura cemetery.

But following some serious family drama where Reardon administered rough justice that the law took exception to, he spent nearly four years in Christchurch's Paparua Prison.

He emerged wiser and sadder and went back to sea, aboard *Esperance* in Mangonui and then as solo skipper

on *Moana* longlining for snapper out of Auckland and Whitianga.

Then it was down to Napier running *Danielle* for Nino D'Esposito's Hawke's Bay Seafoods, *Trial B* gillnetting for moki and rig, *Pacific Trawl* and two years longlining for bluenose on *Moon Shadow*.

“This is a young man's game” – Stuart Reardon

He delivered *Corinthian* from Auckland to Golden Bay and trawled there, fished for tuna out of Nelson on *Tenacity* and, finally, in 2018 took over his current vessel, *Winbill*, a 17.9 metre stern trawler side lifter built in Auckland by Vos & Brijs in 1977.

He lives in Napier with second wife Robyn, whose name is tattooed on his neck, and wants to hit the road in a newly acquired house truck.

“This is a young man's game,” he says.

He has perfect recall of a fishing way of life that is fast disappearing as he reels off all the boats and owners and adventures he has known.

That precision extends to his whakapapa, which he traces back to 950AD, before the Maori migrations.

He is descended from whalers. The whalebone archway at Kaikoura's waterfront cemetery – Takahanga - was

donated by his grandfather Tom Reardon, who fathered nine boys and nine girls.

His great great great grandfather Patrick Norton whaled out of Te Awaite in Tory Channel from the late 1820s and married Makerita Tangitu (Te Atiawa).

Another more recent ancestor, great uncle John Reardon, was the first Kiwi to die in World War I, aboard an Australian submarine.

Reardon's own varied voyaging is coming to a close, it is nearly time to drop anchor.



The fresh catch for sale at the Cuba Street Seamarket. Stuart Reardon with staff (from left) Do Van Duyen and husband and wife Vicki and Peter Gouvatsas.

OCEANLAW NEW ZEALAND

The only law firm in the South Pacific dedicated to the sea



New Zealand's specialist fisheries and maritime law practice delivering results to the country's seafood industry since 1998.

Our practice is one of the country's pre-eminent advisers in this specialist field.

We look forward to serving you in the future.



Mike Sullivan
Partner
021 274 3590
mike@oceanlaw.co.nz



Justine Inns
Partner
027 2275 324
justine@oceanlaw.co.nz



Hamish Fletcher
Partner
027 220 5122
hamish@oceanlaw.co.nz



Karyn van Wijngaarden
Partner
021 323 884
karyn@oceanlaw.co.nz



Hayley Campbell
Senior Solicitor
027 533 1350
hayley@oceanlaw.co.nz



Kim Proctor-Western
Special Counsel
027 4800 690
kim@oceanlaw.co.nz

Montgomery House, 2nd Floor, 190 Trafalgar Street, Nelson 7010. Freephone 0800 Oceanlaw. www.oceanlaw.co.nz

Trawl net pioneer decides time to drop anchor



The Motueka Nets Akersten St, Nelson net shed.

Andrew Hope, at the forefront of New Zealand trawl net design and delivery with Motueka Nets, is retiring after a career steeped in commercial fishing history. CHRIS CAREY reports:

From small beginnings, Motueka Nets Nelson Ltd, (Motnets) has grown into one of New Zealand's go to specialised sheds for all things net.

Motnets' midwater, pelagic and demersal trawls are used on inshore vessels and out to the deep water 'frozen at sea' factory vessels operating to the edge of our EEZ and beyond, enjoying an enviable reputation here and in a number of other fisheries worldwide.

But after five decades on the floor, manager Andrew Hope has cut his last taper, fixed one final three-legger and hung up his needle, retiring from the net making business.

The Hope family farmed and fished at French Pass and moved to Nelson when Andrew was four years old.

"My father Ken hand lined for blue cod around the D'Urville Island area," Hope says. "The ferry that ran from Nelson to Wellington would stop at French Pass to pick up the fish. When we got to Nelson, dad went in with Bill Harvey and bought the 38ft *Southern Cloud* to trawl and scallop around Tasman Bay."

At every opportunity, every school holiday, young Andrew was out fishing with the old man.

"Dad had a bar set up next to the old fireplace and he'd sit there for hours hand braiding the cotton nets. Then he'd light a fire underneath the big tar pot then dip the nets in. They'd be hanging up everywhere drying, sticky or stiff as a board. Mum hated my dad's net shed but from a young age I could fill a needle, mend a three-legger and a few other bits and pieces."

At 17, Hope left school to go fishing, working with his father on the 52ft *Craigewan*.

"Dad, my brother Gus and I spent five, six years down



A wing trawl on the floor of the net shed.

at the Chathams. The first year we had 105 tonnes of whole fish. After we were married, my wife also moved down for the last two years."

The Hopes would bring *Craigewan* home in March for repairs and maintenance, heading back to the Chathams on May 1 each year. While a few trips were made as part of a convoy, most were carried out on their own with the aid of navigators holding Foreign Going tickets.

In 1974 after a year fishing in Fiordland, Hope came home and for the following year fished the scallop boom and set-netted around the bay with *Minetta K*. However, there was a new kid on the block that offered huge potential - aquaculture.

Of the initial 100 leases available, the Hopes applied for and were allocated leases numbered 2 and 57, setting up farms at Skiddaw in Kenepuru Sound, Nydia and Chance Bays and latterly in Waikawa, down by Okuri at French Pass. However, there was not a lot of money to be made when mussel farming first started and Hope was forced to sell his boat.

"About that time, dad, Oliver and Wilfred Gausell, Charlie and Alan Guard and a few others left Nelson Fisheries and started up Associated Fisheries in a building that is now Guytons Fisheries shop. They were in there two, maybe three years before they moved into the Powerhouse until Skeggs bought them out. Oliver and Uncle Pat were working in Skeggs' net shed and they



A dynema trawl.

suggested I join them."

For the next 18 months, Hope learnt everything he could from Oliver and Pat, taking extensive notes. When they retired, Hope took over.

"It was the early 80s and the start of the roughy boom and we were pretty busy building nets," he says. "We also started playing around with midwater trawls. My first rope trawl was actually a copy of a French net that came out with *Otago Challenge* for Wrightson NMA around 1980.

Amaltal Fishing Company purchased the 34m vessel in 1983, renaming her *Amaltal Voyager*. However, the nets lay forgotten, covered by a tarpaulin in a trailer in Transport Nelson's yard. Hope bought these redundant trawls off the new owners.

"It was the early 80s and the start of the roughy boom and we were pretty busy building nets"

- Andrew Hope

"They'd never been used," he says. "We pulled them out, took plans of them and built a trawl and we put this prototype on *Hawea* with John Peterson, took it up the East Coast and nailed it on the fonzies (alfonsino) and



Dynema trawl detail.

bluenose. So, I guess I've got Johnny Gaye, the ex-skipper, to thank for putting me on to them because this is where the whole midwater story started for us."

Two Dutch P47 and P55 midwater trawls aboard the *Rijnmond V*, imported for the Donker family of Nelson, opened a new chapter in the net making story.

"Henk Donker wanted to set up his own net shed and came door knocking. Was I interested? Yes, I was and in 1988 we set up Motueka Nets Nelson Ltd. It was the year of the stock market crash and having recently sold out to Wilson Neill, Skeggs were closing their Nelson operation, shutting down their engineering side, getting rid of the net shed and sold us all their gear. Henk also bought out Murray Timms and shifted his Motueka shed, lock, stock and barrel over the bay to Nelson."

Hope found it both exciting and a challenge with Timms' business nous proving invaluable until his retirement two years later. While the build and repair of deepwater orange roughly and oreo dory trawls played a major part in the business, it was the design and build of midwater pelagic trawls that became their forté. A growing market for salmon farm sea cage nets looked lucrative initially until cheaper imports closed the door on that market.

"We saw an opportunity with midwater nets," Hope says. "The 79 x 70 was an early development in design and very simple to make. The bars (the four sides of a diamond shaped mesh) were joined using bowlines. This made them easy to repair and the flat braid making up the bars, rather than a traditional rope, actually made the net spread better. From there it was just a matter of extending them out in incremental steps. The 8m bars in the 79 were increased to 16m in the 119 for the bigger boats with more horsepower."

The 242 or "Lisa" trawl, was the first of the hexagonal mesh midwater trawls Motnets built. The prototype, trialled on the 65m factory trawler *Amaltal Atlantis*

during the 1998 hoki season, proved easy to tow, highly manoeuvrable and required less fuel to do so. Based on its success, Motnets received many orders for this innovative and cost-effective net.

"We were selling trawls into Australia when I was with Skeggs, but with the roughy starting at St Helens and other places, the Cascade Plateau for example, there was a migration of Kiwis heading across the Ditch," Hope says. "They were also mid-watering for bigeye (bluenose) and fonzies. We were air freighting whole sets of gear over. That, and with the hoki in the Cook Strait going gang busters, it was crazy busy."

The rest of the world was waking up to what was happening in the deep water down under and went looking closer to home.

"South Africa, Walvis Bay in Namibia, Mauritius were kicking off and Kiwis with the experience were drawn to those new fisheries and of course, they wanted the gear they were familiar with.

"We're now designing gear to let fish go so they can grow on, which allows fishermen to work areas previously closed to them"

- Andrew Hope

"South America didn't really fire up until the late 1990s, early 2000s. We were selling some midwater hoki and fonzie gear. We also made midwater trawls for the Faroe Islands, Dutch Harbour in Alaska, the Indian Ocean and also Bangladesh to name a few."

Hope has seen a lot of development when it comes to net design but also to the materials, the twines, netting and ropes that make up the various parts of those trawls.

Motnets are the New Zealand agents for Morgere of St Malo, France, manufacturers of trawls doors and other hardware and will continue with this agency.



Andrew Hope working on net design.

Motnets are also one of two authorised South Island agents for the Ministry for Primary Industries overseeing the inspection, repair and audit of Sea Lion Exclusion Devices (SLEDs), used with great success in the squid and southern blue whiting fisheries.

However, the more recent main focus for Motnets is the inshore fisheries supplying the fresh fish markets, the local fish monger, your favourite chippy.

"We're now designing gear to let fish go so they can grow on, which allows fishermen to work areas previously closed to them, deemed out by too much bycatch," Hope says. "Low headline trawls, trawls with no verandas, and some with the headline behind the ground rope are just some of the tweaks we're doing which have proved hugely successful in letting unwanted fish species escape."

"The standard 4-inch diamond mesh is obsolete now,



A 130-metre squid trawl.



Andrew Hope – a legacy of designing and building species selective trawls.

nobody wants it. It's all about bigger mesh, the T90, 5-inch diamond or the ultimate, square mesh. So, each operator needs to work out what combination works best for them."

A keen golfer, a lover of good wine, a recreational fisher, with a growing list of home renovations and heavily involved with his church, Hope will remain active.

"Over my time at Motnets I've tried not to be an old stick in the mud, to be open to new ideas, to be innovative," he says. "Basically, every midwater net design we make today is just an evolution of those original French string trawls we bought back in the 80s. Perversely, it's the Government sitting on their hands when it comes to quota increases that has forced the industry to become more innovative, particularly when it comes to the inshore fisheries so operators can target and catch what is rightfully theirs, to get a maximum return from smaller quota packages.

"Designing and building trawls which are species selective with minimum environmental impact, this has been our focus and will be for Motnets going forward. These are the legacies I leave behind and which I'm most proud of."

MARINE ENGINEERING

BROS LTD - LYTTELTON - NEW ZEALAND

SHIP REPAIRS
BOAT BUILDING
DRY DOCKING
ENGINE REPAIRS

"Proven Abilities" Worldwide

Stark Bros is fully conversant with all aspects of the ship repair industry, from afloat maintenance to full dry docking and survey work, and the skills associated with a strong boatbuilding foundation. With the combination of specialist personnel, facilities, equipment, knowledge and experience of ships and the marine industry, Stark Bros Ltd is able to provide a high level of service and expertise at competitive prices.

Ph: +64 3 328 8550

P.O. Box 144, Lyttelton, New Zealand

www.starkbros.co.nz

Sustainable mussel spat supply using mātauranga Māori

Charlotte Panton



Mai i ngā maunga ki te moana/Mountains to the sea: Project co-leaders Andrew Jeffs (left) and Nicola MacDonald (middle) with Te Ao Rosieur (right) at Ngāti Manuhiri Settlement Trust in Puhinui/Warkworth. They are holding harakeke (flax) fibre products, which is one of the forms of natural plant fibres being tested. Image; Simon Thrush/University of Auckland.

Indigenous knowledge and expertise are at the forefront of creating more sustainable pathways for the largest and most valuable aquaculture industry in Aotearoa New Zealand - mussels.

Every year, thousands of kilometres of commercial spat-catching rope is cast into the sea with hopes of catching tiny seed mussels or spat. This wild spat is critical to supply mussel farms for the upcoming season. These ropes are made from strands of polypropylene designed to mimic feathery seaweed

and hydroids that spat like to attach to during their settlement phase. With the growing movement away from plastic products throughout the country and the world, mātauranga Māori (Māori knowledge) may have a unique solution for the green-lipped mussel industry.

Kohunga Kutai is a collaboration of marine scientists, iwi and Māori aquaculture businesses that are using mātauranga Māori and western science to develop and test native plant fibres as an alternative to plastic

for catching mussel spat for aquaculture.

Funded by the Sustainable Seas National Science Challenge's Innovation Fund, Kohunga Kutai is co-led by Andrew Jeffs (University of Auckland) and Nicola MacDonald (Ngāti Manuhiri Settlement Trust). This kaupapa was initiated in partnership with Ngāti Manuhiri and Ngāti Rehua, and is guided by kairaranga (master weavers) and a kaumātua who are matatau (expert) in the use of traditional plant fibre products.

Native plant materials such as muka fibre from harakeke (flax), kuta (swamp reed) and ti kōuka (cabbage tree) have a wide variety of traditional uses including anchor ropes and lashing waka components, fishing, and for holding live mussels.

This research project is an example of mai i ngā maunga ki te moana (mountains to the sea) where the indigenous knowledge of the ngahere (forest) is informing better practices in the moana (ocean).

"We are guided by mātauranga Māori of the relationship between kutai (mussels) and plant fibres because kutai are known to have a strong affinity for these natural fibres when placed in the sea", says MacDonald.

"This relationship is not surprising from a biological science perspective, given that the larvae of many mussel species, including green-lipped mussels, selectively settle on filamentous organisms, especially seagrasses and seaweeds", says Jeffs.

The research is guided by mātauranga Māori and tikanga, from informing the most suitable native plants through to how the research is conducted. "The mātauranga Māori component of the project takes a holistic approach involving many hui and wānanga with hapū members to discuss the take (issue) and the kaupapa (opportunity) to be involved", says MacDonald.

Ngāti Manuhiri and Ngāti Rehua are ideally placed to lead the development of this comparative given their underlying mātauranga Māori of the cultivation of these plants, the different sources of fibres, and how to extract and prepare them.

The first six months of the two-year project have focused on determining the most suitable fibres for commercial spat collection through a comparative study and then testing these fibres in industry settings.

Kaiwhatu (a muka fibre craftsperson) from Ngāti Manuhiri and Ngāti Rehua, and Katarina Tawiri from Te Kohinga Harakeke o Aotearoa—National New Zealand Flax Collection have guided the identification of 12 potential plant fibres, their sources, and how to prepare the material for testing.

To test the durability of the 12 plant fibres, the project team partnered with three Māori aquaculture businesses in Te Ika-a-Maui/North Island. They are providing access and use of their farm infrastructure, facilities and staff.

Using samples of these 12 fibres prepared by the kairaranga, the project team are doing a series of field experiments on Aotea Marine Farm's spat collection site in Aotea Harbour to confirm their effectiveness for catching mussel spat.

The effectiveness of spat collection of the three most durable fibres will be tested in partnership with Rough Waters Ltd's inshore mussel farm in the Hauraki Gulf; and Whakatōhea Mussels' offshore mussel farm operation in Te Moana-a-Toi/Bay of Plenty.

"Industry partners are critical to the success of the project, as they are providing their input to ensure the natural fibre products are effective in a commercial setting", says Jeffs.

Developing a commercial-scale, natural spat-catching product will not only help the aquaculture industry become more sustainable, but it will also build and strengthen cultural capital.

Invigorating and applying mātauranga Māori for the management of taonga (treasured) native plants and kutai, in partnership with western science, provides an exemplar of research that is collectively embracing new opportunities for a blue economy.

"Our project is showing that mātauranga is an ongoing process of learning – it is more than historical knowledge informing the present", says Jeffs. "Mātauranga is alive and happening today, generating valuable outcomes for the wellbeing of te Taiao (environment), Māori communities, and the wider industry."

Two research summaries will be available on the project webpage (www.sustainableseaschallenge.co.nz/kohunga-kutai) later this year. One will present results of the comparative study, and the other on the durability of the fibres after 1 month at sea.

Sustainable Seas is a 10-year research programme with the vision that Aotearoa New Zealand has healthy marine ecosystems that provide value for all New Zealanders. It has funded more than 60 interdisciplinary research projects that bring together around 250 ecologists, biophysical scientists, social scientists, economists, and mātauranga Māori and policy experts from across Aotearoa New Zealand. It is funded by MBIE and hosted by NIWA. For the latest research, tools and resources, sign up for the newsletter: www.sustainableseaschallenge.co.nz/newsletter

Your biggest catch could be your worst nightmare

On the sea floor of Cook Strait, 350,000-volt power cables and fibre optic cables link the North and South Islands, delivering essential electricity and communication to households and businesses throughout New Zealand.

At Transpower, it's our job to keep this energy and communication flowing over land and under sea. That's why we have a vital interest in the protection of our undersea cables from damage caused by fishing and anchoring in the Cook Strait Cable Protection Zone.

As a maritime professional, fishing in the Cook Strait area, the safety of our country's critical power and telecommunications connections is literally in your hands.

Respect the Cable Protection Zone (CPZ)

If you are fishing or anchoring near the CPZ, know your exact location by checking the relevant charts. These include: NZ 463, NZ 6212 and NZ 615.

Should you snag your anchor or fishing equipment on a cable, do not try to free it.

Instead, record your position, abandon your gear and advise Transpower's patrol vessel ("Seapatroller", Channel 16 or cellphone 0274-442-288) or Transpower of the situation immediately.

Severe Penalties apply – don't jeopardise your livelihood

Under the law, any vessel of any size, fishing or anchoring in the CPZ may be subject to significant legal penalties. These sanctions cover any equipment that may be used for fishing or anchoring deployed over the side of a vessel in the CPZ.

Penalties apply to both the master and vessel owner, including fines up to \$100,000 for fishing or anchoring, and up to \$250,000 for damaging a submarine cable. In addition the Court may order forfeiture of the vessel and Transpower may take legal action to recover repair costs, which could exceed \$30-\$40 million.

Don't take chances. Refer to the publication Cook Strait Submarine Cable Protection Zone. This is located on the Transpower website www.transpower.co.nz

Alternatively contact 0800 THE GRID or 0800 843 4743.

Catch fish... not cables

TRANSPOWER



Introducing our Seafood Liaison Officers



Graham Parker – Liaison officer South Island

Liaison officers have been used in the deepwater fisheries for over 10 years under an industry centralised programme that monitors protected species interaction within their fisheries. The programme provides education and technical advice and specifications on methods for mitigation, and information about the protected species their deepwater operation interacts with.

More recently, the inshore fisheries have undertaken to adopt the same approach and develop a set of operational procedures relevant to the trawl, setnet surface and longline fisheries across New Zealand to mitigate interaction with non-fish protected species.

Operational guidelines provide a set of rules/standards to guide fishers in their fishing operation, potential mitigation methods and actions and regulatory reporting requirements. The guidelines also include protected species risk management plans which are vessel specific and include details of adopted mitigation methods.

In 2017/18 the Department of Conservation (Wellington office) took over the management of the inshore liaison programme from the commercial inshore sector with continued input from Southern Inshore Fisheries, Fisheries Inshore NZ and Fisheries NZ. The industry pays for the

programme via an annual cost recovery levy process. The programme has four liaison officers, with two based in the North Island managing the Coromandel, Northland, Leigh, Bay of Plenty, Auckland, Napier and Gisborne, and two in the South Island managing the Wellington region, top of the South Island, the west and east Coast South Island as well as the southern region around to Riverton.

In the South Island, John Cleal manages the Wellington region, West Coast down to Greymouth, top of the south and down to Lyttelton. Graham Parker manages the remainder of the east coast South Island from Timaru to Bluff and Riverton. The coverage of all these areas includes a number of different fishing methods and protected species.

The officers will visit each vessel regularly and go over the operational guidelines and protected species risk management plans with the skipper or vessel operator. The programme allows the vessel crew to be actively involved in seabird and marine mammal mitigation measures and undertake improvements through ongoing onboard observation, review, consultation with their liaison officer, and improvement processes. The guidelines provide the same information to the trawl, BLL, SLL and set net fleets



John Cleal – Liaison officer South Island

on documented methods to manage protected species risk and therefore allow the inshore fleet to manage the risks as a group. Vessel specific risk management plans help to manage risks through the adoption and maintenance of mitigation methods and practices that assist in the reduction and deterrence of seabirds and marine mammals to fishing operations.

The adaptive management approach allows for the liaison officers to minimise the risk to protected species through quick responses and advice. Capture 'trigger' points are used and these elicit a quick response from the liaison officer to the fisher when the incident is fresh in their mind, and the incident can be discussed, learned from and the vessel modify practices to minimise the risk of it happening again, as well as provide information to the wider fleet operating in the area. Fishers still maintain the regulatory reporting under the non-fish protected species requirement.

Many vessels have been using mitigation methods, which includes tori lines, bird bafflers, water jets and other deterrent devices, for a number of years and have been involved in the research, design and manufacture of them. Whilst liaison officers have prior industry experience, they learn a lot from fishers and recognise that fishers are best placed to design and adopt innovative protected species mitigation ideas specific to their vessel, the one-size fits all does not work.

More detailed information and copies of the Operational Guidelines can be found on the Fisheries Inshore NZ webpage at www.inshore.co.nz/operational-procedures/

**Our reefers.
The coolest
stuff on the
ocean.**

150
YEARS
BY YOUR SIDE

As one of the world's top carriers of refrigerated containers, we know what's important when transporting temperature-sensitive goods. Thanks to our Remote Container Management technology, we as well as our customers can keep a constant eye on the precious cargo along the entire transport chain. Out on the ocean, in terminals or during landside transport – no matter where your reefer is, you'll know the condition of your sensitive cargo. And whether fresh fruits, delicious meat, essential pharmaceuticals or other highly delicate reefer cargo, we always have the right solution that guarantees an extra boost of freshness and safety.

HAMBURG SÜD
A Maersk Company

www.hamburgsud.com

Next Steps - Keeping seabirds safe around deepwater trawl nets



Denied the waste now stored on board, seabirds are now targeting the nets. Image: Richard Wells

Under the guidance of Richard Wells and John Cleal, the deepwater companies are continuing their efforts to keep albatrosses out of the danger zone around trawl cables. As well as using bird scaring devices, vessels are reducing the key seabird attractant, which is fish waste. But now that the food tap has been turned off, seabirds have shifted their attention to the net for a meal, and this is proving to be a significant risk.

Sealord Group, Sanford Ltd, Talley's, Maruha, Dong Won (NZ Ltd) Hampidjan (NZ), and the Deepwater Group have been working with the Department of Conservation, Fisheries NZ and Southern Seabirds to seek solutions to net captures since 2019, when an appeal for solutions was launched. "When we started, we presumed seabirds were getting into trouble as much as 200 metres behind the vessel when the net first surfaced, and this seemed an impossible problem to solve," Sealord science and resources manager Charles Heaphy says. "But after talking to skippers, and with input from observers, we now have a clearer picture. We reckon it is mainly the last five to seven minutes of the hauling operation, when

diving petrels swim underwater into the mouth of the net, and along with their larger albatross cousins, can also get themselves caught on the outside of the net."

Over 50 ideas have been put forward by skippers at several brain storming sessions. Any idea was considered a good idea. From this, the group have selected a couple to test. One involves water spray using an agricultural irrigator, because ironically, seabirds don't like getting wet. But with their parental drive to feed a hungry chick, it appears that wet feathers aren't enough of a deterrent when fish is visible in the net. In fact deterrents may not cut the mustard and physical barriers may be more effective. One barrier idea being tested is white PVC strips attached near the headline of the net, a bit like a fly curtain. The idea is the strips stream backwards and stop seabirds standing on the netting where they can get legs or wingtips caught. Operational changes have also been proposed such as turning the vessel, to close the mouth of the net, preventing diving birds from swimming in. The group is still looking for suggestions, so get in touch if you have any bright ideas.

Building resilient oceans and fisheries for long-term sustainability



Dan Bolger, Deputy Director-General Fisheries New Zealand

Oceans are central to New Zealanders' identity, wellbeing, and prosperity. We know that human activities, both on land and at sea, can negatively affect the marine environment.

Recently the Government announced a package of reforms that will support the Government's vision for oceans: Ensuring the long-term health and resilience of ocean and coastal ecosystems, including the role of fisheries.

The decisions take a more holistic and integrated approach to managing our oceans and fisheries.

There are a number of changes that will affect the way commercial fishing is managed. The fisheries system reform includes new approaches that tighten and simplify the rules for what fish must be landed and what can be returned to sea, while introducing graduated penalties to better reflect smaller scale offences. It also includes responding faster to new information about the health of the fishery by allowing for pre-agreed changes to catch

limits, and the wider roll out of cameras across approximately 300 inshore vessels by 2024.

In addition, Covid-19 disruptions identified vulnerabilities in the seafood sector workforce due to its reliance on migrant labour. A Ministerial Inquiry has been launched into the seafood sector's reliance on migrant workers and how best to attract New Zealanders into those jobs.

The work is being carried out by independent inquirers with the support of a secretariat provided by the Ministry for Primary Industries. The sector will have an opportunity to input into the inquiry and feedback will help inform the report and recommendations which will be presented to the Minister for Oceans and Fisheries at the end of October.

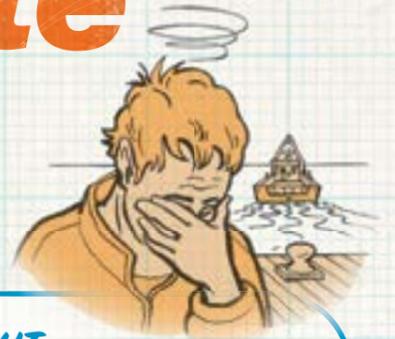
The Government's strategy for action to revitalise the Hauraki Gulf includes actions to restrict bottom trawling to selected corridors, more marine protection, and our first area-specific fisheries plan. The details of the Hauraki Gulf Fisheries Plan will be finalised over the coming year with input from mana whenua and stakeholders. It will deliver more holistic and cohesive management tailored to the needs and challenges of the Gulf and its communities.

While this seems like a lot of change, it will take time to implement and there will be opportunities for input and feedback on how these policy decisions become operational

We'll seek input from tangata whenua and engage with stakeholders in a range of ways, and we are planning meetings as part of the elements of the reform that have formal consultation processes (such as the implementation of on-board cameras) that will also give people within the seafood sector the opportunity to have their say.

Further information is available in the Cabinet papers section of our website at <https://www.mpi.govt.nz/cabinet-papers-and-related-documents>.

A better state of mind #6



RUSS, YOU'RE GOING TO BE SKIPPER OF THIS BOAT ONE DAY. AND YOUR FRIENDS MIGHT WANT SOME WORK. BUT THESE SHIPS ARE ROCKING, DANGEROUS FACTORIES ON THE SEA.

DON'T BE OUT OF IT! I KNOW SOME OF YOUR FRIENDS LIKE THE STUFF. BUT IF THEY ASK FOR A JOB, TELL THEM TO SORT THEMSELVES OUT, FIRST.

DON'T BE TIRED, RIGHT.



SAFETY =  + HSWA

For tips on safe fishing go to www.maritimenz.govt.nz/intoxicated

Safe crews fish more

Nō te rere moana Aotearoa
MARITIME
NEWZEALAND

Challenges abound so make sure you engage and have your say

Doug Saunders-Loder



Doug Saunders-Loder is president of the NZ Federation of Commercial Fishermen

My last report followed our annual conference and I touched on a number of challenges we face.

They include Hector's dolphins and the need for the new Minister to roll out further measures for the Southeast and

Tasman/Golden Bay areas that were signalled as part of the Threat Management Plan, following decisions already made on the west coast of the North Island in 2020.

By now you are likely to have seen consultation documents on what those additional measures may look like. It is essential that you engage and that you communicate with the federation, Southern Inshore and Fisheries Inshore NZ and have your say in respect of this. Industry will be calling meetings of fishermen throughout all of the affected areas and will be submitting accordingly. Discussions with MPI leading into this consultation have been productive so far and it is clear that a high level of pragmatism has been promoted.

In addition, the Minister presented and received support from Cabinet to deliver a number of fisheries reforms that will all come up for consultation over the coming years. Some of these reforms follow work that has been going on at a regional level for some time. Some of them are likely to be implemented as delivered (still requiring some feedback) whilst others will be implemented over a number of years and will most likely be a great opportunity to have good input and we remain hopeful that it allows sufficient time for us to get things right.

Consistent with the Minister's portfolio of Oceans and Fisheries, a reform of Ensuring Healthy Ocean Ecosystems would appear on the money and would fit firmly with much industry sentiment today. Who amongst us doesn't want to see healthy ocean ecosystems?

Revitalising the Hauraki Gulf – Govt Sea Change Strategy is something that our North Island membership will be

affected by but I know there are a number of fishermen and industry representatives who have been involved for many years in shaping a better Hauraki Gulf, so I hope their efforts have not gone unconsidered. It is of course, right on the doorstep of our largest population and the pressures from all sectors of society impact on this special area, so management of it is essential.

Fisheries System reform points towards improving the management of fish stocks and the development of a more meaningful, timely and effective TAC/TACC setting process.

Further reforms that have been long overdue in addressing include Landings and Discards and Offences and Penalties. These have clearly been the subject of debate across the whole industry for over 30 years. Often put into the too hard basket by dozens of past Ministers, we now have an opportunity to try and address these once and for all.

The Government has announced that cameras on boats will become a reality. Current indications are that key environmental areas like marine mammal and seabird interactions will bear the initial brunt of this and as time moves on it is likely that further discussion will be required. The current reforms indicate that Industry will have to contribute up to \$10m against a significant contribution from government but at these levels it is simply unaffordable and ongoing concerns about privacy are far from resolved. These are details that must be addressed through any consultation and industry will continue to work to ensure that the outcomes are workable.

There is a level of uncertainty as to what these reforms all mean and it is not difficult to see them as the last 'nail in the coffin' of an already battered Industry.

Something lacking at this stage with the reforms is any real detail and I urge you all to study them and to have input. There will certainly be consultation as these are rolled out and there will be good opportunity for us all to have our say.

Take the opportunity to look at the positive aspects of the work before us and to shape the outcomes we need. Not an easy proposition to accept I know, but have faith people and try to see the Minister's expectations as something that we can shape towards a better life for all.

Federation of Commercial Fishermen's Conference a huge success

The federation conference this year was held in Dunedin and was remarkable for a number of reasons, not least the \$54,000 it raised for the Shipwreck Welfare Trust for families of those lost at sea.

Federation president Doug Saunders-Loder was the recipient of the Electronic Navigation Shield for

an outstanding contribution to the seafood industry and was surprised at the honour.

"It was a totally unexpected and humbling experience to be recognised alongside so many well-deserved people before me," he says.

The beautiful quilt is made every year by Jeanette Ansley of New Plymouth. This year it raised \$2000.



Fisheries Undersecretary Rino Tirikatene opens the conference



A full house for the 2021 federation conference



Doug Saunders-Loder, recipient of the ENL Shield



Pat Nyhon helping out with the The Shipwreck Trust auction



Doug Saunders-Loder and the maker of the traditional quilt, Jeanette Ansley



Amy Moore and Penny Jones of North Beach Fishing



Keith and Karena Mawson of Egmont Seafood



Karen Olver and Carol Scott keeping track of the auction



Darren Guard and Amy Moore



Doug Saunders-Loder and Allan Rooney



Neil McDonald of the Port Chalmers Fishermen's Association



Donna Wells of FinestKind



Curly Brown

Fish and chip fare for all tastes

Emily Pope



Erik's Fish & Chips in Queenstown has been serving up Kiwi kai to locals and tourists for more than six years.

A humble Queenstown chippery has been serving up fish and chips with a twist for more than six years.

It was a gap in the region's restaurant trade, the lack of Kiwi mainstay food, that quickly earned Erik's Fish & Chips its prestige – not only as one of the best local fish shops, but also as an allergy-friendly takeaway joint.

"When we founded Erik's in 2015, Queenstown's restaurant scene was predominantly fine dining," says owner Anna Arndt. "There were practically no fish and chip stores in the CBD and certainly none that catered to dietary requirements."

After cashing up on their successful meat processing business Aria Farms in Hamilton, Anna and her husband Erik found a small piece of land in Queenstown's CBD to place a food trailer.

"Our mission was to provide authentic fish and chips.

If it wasn't successful, we could always move the trailer," says Arndt.

The trailer remains today, complete with six fryers, a prep station, packing area, till and order window. All the food is prepped and cooked on site by Arndt's five-strong team who churn through several hundred fish and chip orders a day at peak volume.

The completely gluten free menu holds the coeliac "Dining Out Programme" accreditation, while offering the usual seafood fare – deep fried mussels, scallops, calamari and the ever-popular Bluff oyster.

The business ethos is to source local ingredients wherever possible.

"Our homemade chips are hand cut by our team from Canterbury-grown potatoes, then there are other classics like potato fritters, that are particularly popular with the



Owner Anna Arndt (left) and employee Kari Ramcharan.

Aussies. We make those in-house too," Arndt says. Fresh monkfish, hoki and the most popular fish, blue cod, are the core species that feature on Erik's menu – delivered the same day it's caught from the family-owned seafood business, Harbour Fish.

At \$10.50 a piece, customers get a generous fillet that delivers on fresh flavour.

Customers can choose from either crumbed or battered fish, or for the more health conscious, poached. The menu is constantly evolving, says Arndt.

"When we first opened, we served the standard Kiwi fare, with ten and \$20 meal deals for families. We have added to the menu over time to cater to vegan diets and the halal community."

Anna's husband Erik, whom the business is named after, is the brains behind the halal-certified product on their menu.

"Halal is a very important part of our market," says Arndt. "Erik is a specialist in developing new products for meat companies. He created all the halal certified meat products for both our Queenstown and Wanaka stores, including the hot dogs."

Vegan spring rolls and deep-fried cauliflower bites in crispy batter are menu highlights too. Then there are the British favourites – mushy peas, cooked up just how the English once did, gravy, and curry sauce. A deep-fried kiwifruit, dusted in cinnamon sugar, has proved one of the store's biggest hits, becoming somewhat of a Queenstown icon and synonymous with Erik's name.

"The idea behind that was to give tourists a taste of New Zealand," Arndt says.

When asked what she loves most about the job, Arndt says it's the satisfaction of catering to such a broad range of dietary needs.

"It's really quite rewarding," says Arndt. "Seeing people enjoy the food they normally wouldn't get to eat, it's priceless."



Another satisfied customer.

And as for the non-gluten free patrons, Arndt says they generally walk away as happy customers too.

"There are always those fussy customers you cannot please, but for the most part everyone rates our food."

"People are genuinely surprised to learn their fish and chips are allergy friendly. More often than not, customers cannot taste the difference."

Erik's Fish & Chips is one of many businesses that continue to feel the ongoing pinch of Covid-19.

"Eighty percent of our customer base came from overseas," Arndt says. "Our customer count is definitely lower than what it was pre-Covid."

"It's hard. As a business, you still have overheads. You still have to pay your bills and staff, even if there is no traffic."

It's her small team of staff that have helped see them through, she says.

"With Queenstown being a tourist destination, staff turnover can be quite high, even at the best of times."

"We have been lucky to have such a dedicated, young team by our side at both our Queenstown and Wanaka stores."

"Through our successes and challenges, they bring a real vibrancy to our business – one that has kept us afloat."

<p>www.splashzone.co.nz All enquiries to Richard or Jean fish.man@extra.co.nz or 027 230-2333</p>	BNS	CRA	HPB	KIN	
	TRU	ACE & SHARES			BCO
	TRE	Inshore Parcels			WAR
	TAR	North Island			GUR
	SNA	WANTED			LIN
	PAU	MOK	SCH	SPO	

Outstanding Pāua Fritters

These 'Kiwi as' pāua fritters showcase two Outstanding NZ Food Producer Awards 2021 winners; Water Champion Tora Collective fresh pāua or gold medal winning, Chatham Island Food Co. pāua mince. Pure pāua - these fritters are essentially minced pāua

bound with a minimal amount of batter. The secret is to add just enough batter to bind and hold the ingredients together. Adding herbs can be optional. Parsley has a mild flavour but you could add a little basil or chervil.



Makes 10 – 12 fritters

Ingredients

- 2 large free-range eggs
- ½ cup plain flour
- ½ teaspoon baking powder
- 1 tablespoon milk
- 200g minced pāua
- a small handful of flat leaf parsley leaves, chopped
- salt
- oil for cooking
- lemon halves for squeezing

Method

Whisk the eggs in a bowl until frothy, about 1 minute. Sift in the flour and baking powder and whisk together along with the milk until you have a smooth batter. Put the minced pāua and chopped parsley in a bowl and mix to combine. Add the batter and mix again to combine. Taste and season with salt.

Heat a large frying pan over medium heat. Add a little oil, then drop spoonful's of the fritter mixture into the pan. Cook until golden on each side, about 5 minutes. Serve pāua fritters straight from the pan, each with a good squeeze of lemon juice and extra salt, if wished.

But what about sedimentation?

The Government's strategy for revitalising the Hauraki Gulf has finally been released.

Sea Change was the document that kickstarted the plan and this document is the Government's response to that.

The strategy is heavy on the prohibition or restriction of fishing practises to revitalise the most populated recreational fishing paradise in the country, but little mention is made of the other, arguably more important, reforms that will be key to restoring the Gulf.

Oceans and Fisheries Minister David Parker says sedimentation and other terrestrial-based threats to our coastal waters are a priority of his, although the document; Revitalising the Gulf has very little to say on this.

What it does say is, restricting trawl fishing, establishing marine protected areas and habitat restoration need to be addressed, but this will only be window dressing if the waters of the Gulf continue to be fed with land-based pollution.

In the Minister's defense, the Revitalising the Gulf plan is being implemented under the Oceans and Fisheries portfolio and that document does say that terrestrial effects will be advanced by the Agriculture and Environment Ministers.

That Mr Parker is also the Environment Minister gives us some hope these issues will get more priority than currently flagged, although one would have thought that an

ecosystem-based system would have more explicit crossover into land-based impacts.

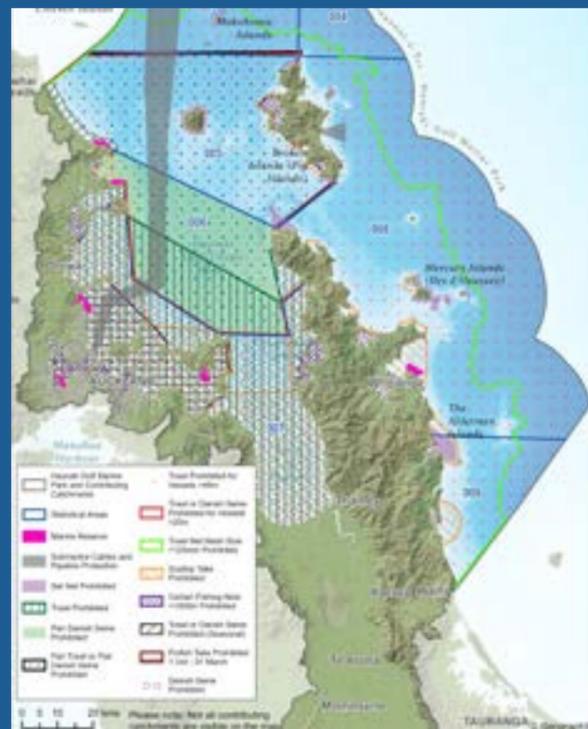
That local councils are also charged with addressing land-based effects on their coastal waters does not fill us with as much confidence. Councils are responsible to their ratepayers, the businesses and population whose activities are impacting on our waterways in the first place.

The Sea Change response also lacks any serious counter to the huge numbers of recreational fishers who use the Gulf every weekend. These many thousands of fishers are not required to report their catch, despite science estimating that they take twice as many snapper out of the Gulf than commercial fishers do.

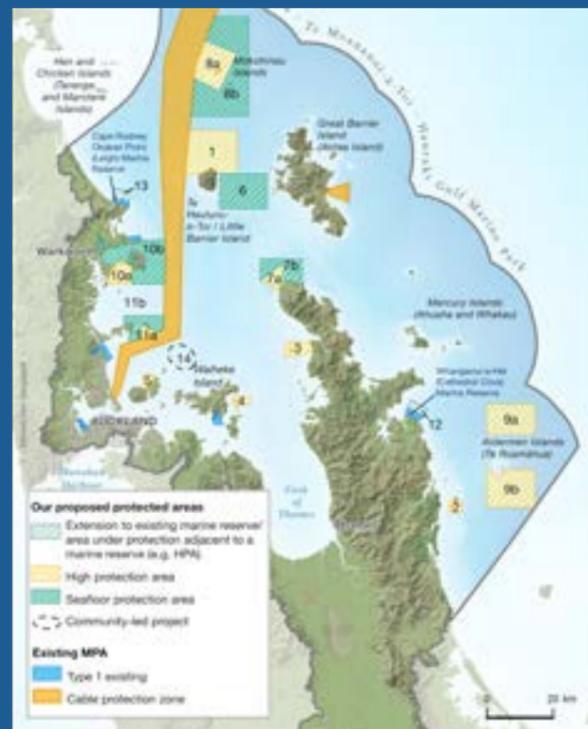
Over the next three years, the fishing-related restrictions in the document will be implemented and we would hope that a similar, or faster timeframe be given to the terrestrial impacts by the Agriculture and Environment Ministers.

Meanwhile, the commercial seafood industry will continue to take the brunt of regulatory and legislative change, which have not been insubstantial already.

The areas, depicted in the map (left) below, are the restrictions under which the commercial industry already operate in the Gulf and the map to the right are the additional restrictions proposed in the recent document.



The current restrictions on commercial fishing in the Gulf



The additional restrictions suggested in 'Revitalising the Gulf'

Rock lobster industry recognises outstanding contributions



Mark Geytenbeek, Bob Street and Rodney Tribe

On 19 July 2021 Otago Rock Lobster Industry Association Incorporated, also known as "CRA7", held its Annual General Meeting in Port Chalmers. The outstanding contributions of three people to the CRA7 fishery were acknowledged.

A long serving CRA7 Executive Member, John Steffens was farewelled. In 2013 John became a Member of the New Zealand Order of Merit for services to the fishing industry. He has been active in several fishing industry organisations over the years, including the New Zealand Fishing Industry Board, past vice-president of the New Zealand Federation of Commercial Fishermen and is past chairman of the CRA8 Management Committee. He also established the Guardians of Fiordland and is keen supporter of a similar concept for the Otago coastline in the face of SEMPA. He remains a director of Fiordland Lobster Company, but has stepped down from the CRA7 Executive due to a move to the top of the South Island in early 2021. CRA7 will miss John's unfailing wisdom and compassion for the man on the water.

A stalwart of the CRA7 fishery, Barrie Barber, was honoured with a Life Membership. He has given much to the CRA7 fishery having been involved in many roles including active fishing, owning quota and various other fishing-related business interests.

He has helped a number of fishers get their start in the industry and supported their growth as they have become the current generation of CRA7. CRA7 greatly appreciates his loyalty and dedication through the years.

Bob Street was also awarded a Life Membership. Bob is known for his passion for fisheries and has been described as a man of undoubted practical experience and willingness to engage with fishers, more than what may be commonly expected of scientists by industry. His passion has remained strong long after his retirement and he continues to initiate contact with fishers, sharing his knowledge. He is a role model for cooperation between fishermen and scientists.

Mr Street (BSc – Victoria University), fish scientist spent 32 years as an inspector and seafood researcher with the Marine Department, then the Ministry of Agriculture and Fisheries before retiring in 1986. He was involved in many fisheries, including paua, flatfish, rock lobster and oyster. He then established his own consultancy business focused on enhancing commercial and recreational stocks off the South Island coast.

Mr Street has extensive knowledge gleaned from decades of field work and data collection. He has been the pre-eminent researcher across southern fisheries and hugely important to the maintenance of the puerulus settlement research programme and various shellfish re-seeding projects. His original rock lobster and paua research work is considered to have set the foundation for contemporary management of those stocks. Mr Street has also been described as being ahead of his time in his general research into what is now referred to as 'ecosystem-based management' by investigating and confirming the inter-relationships between species and habitats.

The supplied photo shows Mark Geytenbeek, Fisheries New Zealand, Bob Street and Rodney Tribe, Chair of CRA7. This was taken at the AGM when Bob received his award in person. A plaque was given by CRA7 and artwork was given by Mark Geytenbeek (the artist Sonya Hempel is an MPI Senior Analyst who looks after CRA management. She is a very talented artist who is inspired by NZ Wildlife life - especially marine life).

OUTSTANDING NZ
2021
- Food -
PRODUCER
AWARDS



**Congratulations
Tora Collective!**

Outstanding NZ Food Producer Awards 2021 Seafood New Zealand Water Champion and NZ Life & Leisure Spirit of New Zealand Award winner is Tora Collective for their Live Pāua.

“We are very proud to have received these awards, it’s great to be recognised for the hard mahi we put in daily on the water to provide Kiwis with live kaimoana which comes directly from the ocean in its rawest and freshest form. We’re lucky we have the ability to sell our catch direct to consumers and we hope this model grows in New Zealand, fresh produce is what Kiwis deserve.”

Claire Edwards and Troy Bramley,
Founders and Owners, Tora Collective



Troy Bramley of Tora Collective



Ahia team: From left to right:
Ken Houkamau, Fiona Risetto,
Carl Riini & Kahurangi McLeay



**Could your seafood company
be the 2022 Water Champion?**

Entries for the 2022 Outstanding NZ Food Producer Awards open in December 2021 with judging in April 2022. For more details visit www.outstandingfoodproducer.co.nz

Outstanding NZ Food Producer Awards 2020 Seafood New Zealand Water Champion was Ngati Porou Fisheries for their Ahia Smoked Kahawai Manuka Honey.

“Validating our product quality through the Outstanding NZ Food Producer Awards has been hugely beneficial...it’s tough cementing new products in the market so it helps having reputable judges saying, ‘Yes, we think your product’s good too!’... As a result of the win, Ahia Smoked Kahawai Manuka Honey is now the top selling product in our range.”

Melanie Percy, Marketing Manager, Ngati Porou Fisheries

The Outstanding NZ Food Producer Awards are possible thanks to the support of:



AOTEAROA QUOTA BROKERS

QUOTA TRADER + QUOTA MARKET REPORTS + QUOTA MANAGEMENT + QUOTA CONSULTANCY + AQUACULTURE



ACE FOR LEASE

BC01, BC02, BC08	PAU5A, PAU5B
BUT2	RSK1
ELE1	SCH1, SCH5, SCH7, SCH8
FLA1, FLA2, FLA3, FLA7	SPD1, SPD3, SPD5, SPD7
GAR2, GAR3, GAR8	SPE3
GMU1, GMU7	SPO1, SPO8
GUR1, GUR8	SQU1J, SQU1T, SQU6T
HOR3, HOR7	SSK1
HPB1, HPB2, HPB7, HPB8	STN1
JDO1, JDO3	TOR1
KAH	TRE
OEO1	WWA3, WWA4, WWA5B
PAD1, PAD2, PAD5, PAD7, PAD8	YEM9
PAR1	

QUOTA SHARES FOR SALE

PAD5, PAD7, GMU1, HPB1

**QUOTA SHARES WANTED
TO PURCHASE**

BC04, BC05, BC07	PAU3, PAU5B
BNS2, BNS3, BNS7	PHC1
CRA5, CRA6, CRA8	SNA1, SNA2, SNA8
GLM	SPO3
KAH1	TRU3, TRU4, TRU5
LIN5, LIN7	

BOATS FOR SALE

5.05m Allenco dory - Honda 60Hp - 20Hrs, GPS/Sounder, Alloy trailer - \$25,000 + GST

7.5m alloy crab boat, 150Hp Volvo, Furuno GSP, Sounder, VHF, Been in SOP - \$70,000 + GST

13.71m steel cod/cray, Doosan L136 - 118Kw - \$350,000 + GST

DOMINIC PREECE
Managing Director

PHONE (03) 383 7282 | MOBILE 027 406 0419 | quotabroker@extra.co.nz | www.aotearoaquota.com
HEAD OFFICE | PO Box 6420, Dunedin North, Dunedin 9059



Specialists in Screw Anchors, Mooring Jibs & Dredging Tools

- Screw Anchoring for accurate positioning & strong holding power
- Block Positioning to ensure compliance
- Commercial Diving for inspections and maintenance
- Barging for logistical support
- Mooring for Vessels 5m to 40m in length

www.marineservicesnz.com | (03) 573 8045 | info@marineservicesnz.com

**ACE LEASE AVAILABLE
2021-2022**

SCH7	11.7t
HPB7	1.2t
LIN7	8t
BNS7	175kg

Enquiries to Glenn Orchard

glenn@gofly1.com



OPERATIONAL WORKPLACE SAFETY

- Training
- Health & Safety videos & E-learning
- Operational risk assessments
- Full safety system creation
- At sea services
- MOSS audit support
- COVID-19 Policies and Procedures support

TALK TO US ABOUT YOUR MOSS AND HEALTH & SAFETY NEEDS

Darren Guard - Managing Director
027 436 2396 | darren@guardsafety.co.nz
www.guardsafety.co.nz



5254 DANIELLE BOTTOM & SURFACE LINER

LOA 18.95m x B5.6m x D2.9m
Main - MAN D2566 MTE6 250hp
Aux - Isuzu. Genset 60kVA
Fuel 10,000 litres. Water 2,000 litres
Ice hold 27 tonnes. Bottom & surface line gear.
4 berths. Galley. Air conditioning
Good electronics
Survey Offshore 100 miles Expiry 10/2/2025

WELL PRICED AT \$295,000



5270 TUNA TROLLER KAURI
L 10.2m x B 3.5m x D 1.2m
Kauri plank on hardwood
Detroit 4/71 130hp
TwinDisc MT906 3:1 gearbox
Fuel 1100L, Water 120L
Ice Hold 3 ton 35-40 bins.
Tuna poles and gear
Survey valid 22 July 2022

\$55,000



5256 WESTERNER - LINER
L 17.6m x B 4.9m x D 2.8m
Main - Doosan 285kW
Aux - Cummins 67kVA
Onan 18kVA genset
20t ice hold, 4 berths.
Bottom & surface line gear.
Trawl winches available.
Survey 100 miles to 11/23

GOOD BUYING \$220,000



5269 KAURI TRAWLER.
Was good tuna troller
L 14.3m x B 4.1m x D 2.1m
Gardner 6LX main.
Gardner 2:1 gearbox
4 tonnes -70 bin fish room
Survey to September 2021
Double winch. Spare gear.
Owner retiring.

REDUCED \$60,000



5232 LONG LINER,
TUNA TROLLER.
BFG Autoline system
L 19m x B 6.4m x D 2.75m
30 t fish hold
Cummins KT19 main
Fuel 22,000L. Offshore
survey to May 2025
A BIG 19M VESSEL

NEGOTIABLE \$500,000



5259 TRIAL B - LINER
L 16.96m x B 4.7m x D 2.4m
Mercedes OM402 165kW
Aux Nissan 60hp - 20kVA
Fuel 9,000 litres
Ice hold 15 tonnes
4 berth. Good electronics
Survey 100 mile expiry
22 February 2022

REDUCED \$120,000



5266 LINE, TROLLER, POT
LOA 18m x B 5.5m x D 2m
Built Carey's boat yard
Scania D512.TwinDisc 514C
Fuel 5,000 litres. 12/8 knots
3 x Fish holds = 11 tonnes
Good accommodation
Offshore 200 mile Survey
WELL PRESENTED & A

GOOD HISTORY \$450,000

5226 GRP WESTCOASTER 60 TUNA LINER

LOA 18.636m x B 5.95m x D 2.5m
Main Cummins N14 400hp, TwinDisc gearbox
Auxiliary Cummins 35kVA alternator
Fuel 8,000 litres, Good accommodation
Fish holds 10 tonnes (were brine tanks)
3t bait freezer. Good electronics
32 mile tuna drum & spare drum (bottom line)
Survey to October 2022.

VERY WELL PRESENTED

\$850,000



All prices indicated are plus GST unless otherwise stated.

150 VESSELS AT



Thanks for all the support so far in 2021. If you are interested in any of our programs make the effort to ask about the course guarantee. We will not cancel a course and can start for 1 person at anytime. Reach out and let us help you gain those MNZ licenses in a way that suits your lifestyle and fishing operation.

Zero Fees 2021

- Advanced Deckhand Fishing

2021 Maritime Training

- Skipper Restricted Limits
- **Zero Fees** Advanced Deckhand Fishing
- Specified Activity Endorsement
- Maritime Restricted Radiotelephone Operator's Certificate
- Maritime General Radiotelephone Operator's Certificate
- Skipper Coastal Offshore
- STCW Basic
- MEC6
- Workplace First Aid
- **Coming soon for 2021-MEC5**

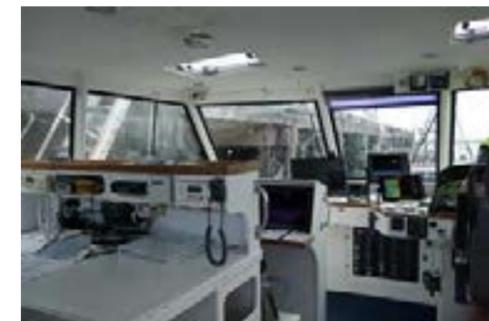
Accommodation available

Contact Peter on 0274 507585

0800DEEPSEA - 08003337732

info@deepsea.co.nz

www.deepsea.co.nz



Looking forward to seeing everyone at this year's conference.

IT'S JUST A **DITCH
THAT SEPARATES US!**

**SELL YOUR PRODUCT
THROUGH AUSTRALIA'S
MOST **DIVERSE** FRESH
SEAFOOD MARKET!**

**WE SELL 13,000 TONNES
OF FRESH SEAFOOD
EACH YEAR, AT A VALUE
OF OVER **\$150 MILLION**
DOLLARS**

**WE TRADE 100+
DIFFERENT SPECIES
OF SEAFOOD TO **350+**
BUYERS WEEKLY**



**SYDNEY
FISH MARKET**
AUSTRALIA'S
HOME OF SEAFOOD

Contact our expert team and begin
trading with Sydney Fish Market
service@sydneyfishmarket.com.au
(+612) 9004 1100