

# SEAFOOD

NEW ZEALAND



Minister Jones: I will stand up against intimidation

A day in the life of a tech entrepreneur

The sustenance behind our seafood



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A strong, resilient, viable commercial seafood sector is in all our interests. It provides you with a living. It feeds New Zealanders. And it ensures that our coastal communities can thrive.

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SEAFOOD WHĀNAU



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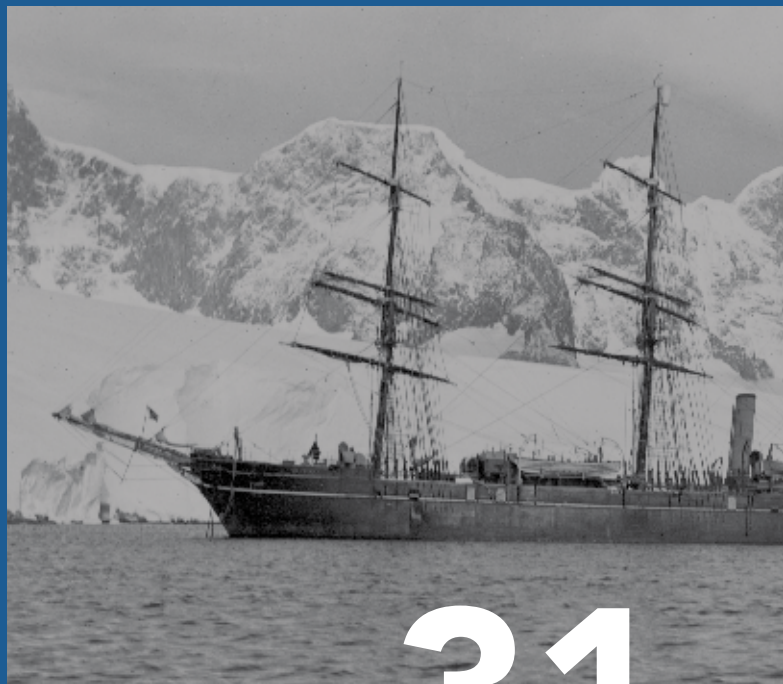


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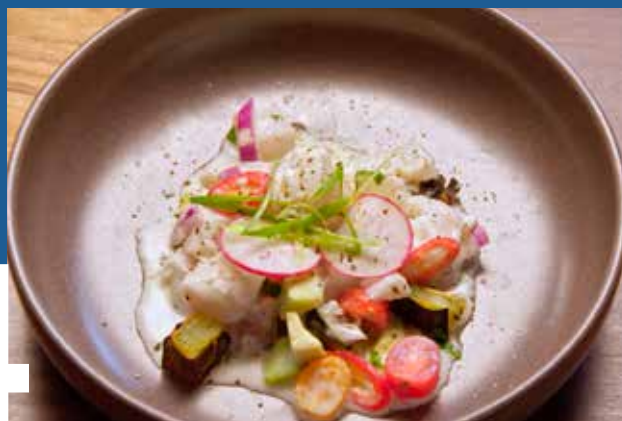
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## From the Chief Executive

Welcome to our first edition for 2024. We have moved to a quarterly format for our Seafood New Zealand magazine, reflecting the seasons and the rhythms of the fishing year.

2024 started with a flurry of media activity, prompted by some strong views in the press on the new Minister for Oceans and Fisheries. The Minister has some strong views of his own and those are reflected in the interview he gave this magazine shortly after he took up the role.

Seafood New Zealand is staunchly apolitical. We work with politicians from across the spectrum. What we appreciate in any Minister is knowledge, experience, and balance. The ability to assess the data and make science-led decisions.

There has also been media criticism in the first part of this year suggesting that industry meetings with Minister Jones were somehow inappropriate. It was noted that oysters were served at a recent gathering in Nelson. The event was described as "exclusive" and the political donations made by a couple of the individual attendees were noted. Aside from the appropriateness of serving seafood at a seafood event, with around 30 representatives of the industry there, from skippers to board members, "exclusive" seems a stretch.

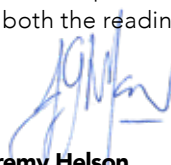
All New Zealand industries and their representatives need to talk to the Minister responsible for their sector. Ministers, as well as opposition MPs, regulators, local body politicians and others in decision making positions need to front up to the people they regulate. They need to canvas a wide range of views and hear a variety of voices. Previous Labour Ministers did that. The Government has changed but the need to engage has not. We thank the Minister for being proactive and for making himself available to talk to us in meetings and through this magazine.

Also making himself available to chat with us is Domjan 'Dom' Talijancich, the entrepreneur behind the company Advanced Conservation Solutions (ACS) which has developed DeepSet – a camera with machine-learning algorithms that can identify the type of fish species, as well as the quantities of different species, entering a trawl net in real-time.

I strongly recommend a read of this story to make you feel excited about how advancing technology, created right here in Aotearoa, is going to help fishers to fish more efficiently and sustainably – something we all want.

The fish our fishers bring back for New Zealanders to put on their plates is not only caught with incredible care, it's also incredibly good for you. Just how good is revealed in a new World Health Organisation study. To understand the science, we hear from a kiwi nutritionist who explains exactly why kaimoana is an important part of our diets.

There's plenty to be proud of in New Zealand seafood. And there's plenty in this quarter's magazine to get you thinking. We hope you enjoy both the reading and the kaimoana in the weeks ahead.



**Dr Jeremy Helson**  
Chief Executive

# Pioneer of Nelson's fishing industry turns 100

One of Nelson's first commercial fishers, Allan Guard recently celebrated his 100th birthday. Great nephew and Managing Director of Guard Safety, Darren Guard shares some of Allan's life story with us.



Allan Guard, a pioneer of Nelson's fishing industry celebrated his 100th birthday in February.

Allan was born 11 February 1924. One of 14 children, Allan spent his early days on the water fishing or helping on the family farm in Pukatea Bay, Admiralty Bay.

Around the age of 14, Allan started his commercial fishing career on *Pukatea*, chasing groper and blue cod around the d'Urville Island area. In the early 1940s, Allan bought into his first



Allan had grown up on the water, started his commercial fishing career around the age of 14, and fished the Nelson and Marlborough regions until the 1980s.

fishing vessel – *Silver Dawn* – so he could focus on commercial fishing in the Nelson, Marlborough Sounds and Cook Strait areas.

It's possible, Allan and other Guard family members, were also responsible for the birth of the Greenshell™ mussel industry at this time. While out searching for fish around the region they would hand pick mussels off the rocks at low tide and take them across to sell in Wellington.

Allan settled in Nelson in the late 1940s, upgrading to the *Silver Star* on which he focused on fishing for scallops, oysters, mussels and trawling around the top of the South Island. In the 1980s Allan thought it was time to retire, but his brother Jack Guard thought otherwise, and convinced Allan to help him build boats for many more years.

These days, Allan is still sharp as a tack and his face lights up when you mention the fishing industry and the vessels he knows well, including *Gleam* – a well-known fishing vessel in the area. Still owned by my family *Gleam* is now being used to educate and promote the fishing industry to young people in the Nelson region – something Allan is very happy about.



# Kellogg Rural Leadership Programme



The Kellogg Rural Leadership Programme is for those who are passionate about developing themselves and contributing to their industry.

Do you know anyone who is looking to level up their career in this awesome industry of ours? Perhaps that person is you! The Kellogg Rural Leadership Programme is designed for farmers, foresters, fishers, growers, and agri-business professionals who are passionate about developing themselves and contributing to their community and industry.

The Programme runs for 18 days in-person and is spread over six months, making it easier for participants to fit it

in around family, work, and business. The programme looks at leadership skills and tools, strategic direction in the primary industries, critical thinking skills and takes a deep dive into the political and economic context for leadership. Applications close Sunday 14 April, and the Programme kicks off Tuesday 18 June.

Learn more at [www.ruralleaders.co.nz/kellogg-rural-leadership-programme](http://www.ruralleaders.co.nz/kellogg-rural-leadership-programme)

## SAVE THE DATE

# 2024 SEAFOOD CONFERENCE

## 7 – 8 August 2024, Auckland

# A fisherman plays with fire



Zak Olsen (right) working his magic on the grill while *Cooks on Fire* judge Jared Macdonald looks on. Image: TVNZ.

**There's more than 'meats' the eye to Zak Olsen. A familiar face in the inshore fishing community, you might know him as an empathetic Navigator for FirstMate, a NZ Federation of Commercial Fishermen executive team member or as a passionate advocate for all things fishing. But Zak is also highly talented behind the grill, running Fat Boy BBQ catering. His skills with fire landed him a coveted spot competing on Season 2 of TVNZ's *Cooks on Fire*.**

Although he was already in the top 10 of the New Zealand competition barbecue circuit, Zak wasn't expecting a representative from *Cooks on Fire* to ask – mid-competition! – if he and the team were planning to apply for the show's second season. After discussing with teammates Ash and Adam, they decided it could be a lot of fun.

"We just sent a video to them with the application and TVNZ came straight back to us for the second interview," Zak says. "And then production came straight back saying, 'You're on the show!' And we were like, 'Oh, wow, this is a thing now.'"

Zak and Ash headed over to Kumeū, 25 kilometres northwest of Auckland, for filming, where they were one of six teams competing. The first challenge was to create two dishes – one low n' slow, one hot n' fast – showcasing the story behind the team. Zak and Ash were first up with an entree of lamb steak with tzatziki and beetroot

hummus, plus a garlic and mint flatbread, followed by a beef short rib ragu with homemade pasta and focaccia, which the judges said had "wonderful flavours".

The two were able to plan in advance for those dishes, but that wasn't the case for future challenges.

"Every day you show up at 6am on site and you can see them moving stuff around. From then on out, you've no idea. They give you themes and what you *might* be doing, but there's no specifics. So for chicken, we knew we were going to be cooking chicken that day. But then you turn up and they've taken away the barbecues and given you this shitty little kettle!"

Dishes for these challenges had to be put together on the fly with common ingredients available in the pantry. Zak and Ash relied on their shared sense of fun and experience working in commercial kitchens to get through any hiccups – like when Ash burnt pieces of toast five times.



Smoked crayfish mornay with toast. Image: TVNZ.

"We're quite adept because if something goes wrong in a commercial environment, you have to fix it. That's where we excelled – when you're constantly burning the toast – but because we were there to have fun, we weren't going to get stressed out and buy into the mentality of 'we must win at all costs'. So whenever something happened, we were able to laugh about it, then be like, 'Oh, sweet. Let's do this.'

"The thing that I was most proud of on the show is the way we stayed true to what we wanted to do, which was to have fun. And we didn't argue once."

Zak and Ash made it through cooking chicken on a kettle, a team challenge on 500-gallon offset smokers and Asian street food on hibachi grills. Then, the pressure was on for the semifinal: a smoky kaimoana throwdown.



Teammates Zak Olsen and Ash Matuschka. Image: TVNZ.

"As soon as we got there, some of the guys were like, 'Oh, what's that? What's that?'" I'm like, 'It's this, this, this and this.' And then [judge] Jay Mac went, 'That's right. You're the fisherman. Oh, I'm gonna be watching you.' The day before was the hibachi challenge, where we absolutely smashed it. But the prize for winning was to cook off against [competitors] Matt and Heather again, where they beat us. But they got the booby prize of having to allocate the seafood!"

The two put out a delicious mānuka-smoked snapper and kūmara ceviche and a smoked crayfish mornay (a type of creamy béchamel sauce) with that troublesome toast. It was good enough to land Zak and Ash a win in the throwdown and a spot in the finals, where they ultimately came second to Hamilton-based couple Matt and Heather Flanagan.

But Zak's ultimate highlight? Cooking for New Zealand chef Al Brown who is "100 per cent" as nice as he appears in his books and on TV.

Now that Zak has braved the heat of *Cooks on Fire*, he's looking forward to hanging up the barbecue apron for a bit.

"I feel like I had my time away, and I'm really keen to throw myself back into the industry."

Watch Zak on Season 2 of *Cooks on Fire* on TVNZ+. And get his recipe for Asian BBQ Snapper on page 34.



# Opportunity in the challenging and dynamic Rock Lobster Industry – Chief Executive Officer



Due to the upcoming retirement of the current CEO the CRA8 Rock Lobster Industry Association Inc is looking to appoint a replacement to the position. The Association is the organisation representing the commercial rock lobster industry in South Westland, Fiordland, Stewart Island and Southland (CRA8).

The CRA8 area produces 45% of New Zealand's rock lobster exports. The Association is autonomous but is also a shareholder of the NZ Rock Lobster Industry Council Ltd.

The appointee will be based in Otago or Southland, and work from home but requires frequent travel.

The position requires a range of skills and knowledge including fishing industry, business, advocacy, fishery management, research management and relationship maintenance.

An attractive salary and benefits package will be offered to the successful applicant.

A position description is available by emailing:

[cra8@mcp.co.nz](mailto:cra8@mcp.co.nz)

Applications, including CV should be emailed to:

[cra8@mcp.co.nz](mailto:cra8@mcp.co.nz)

Applications close on Friday 12 April 2024 .

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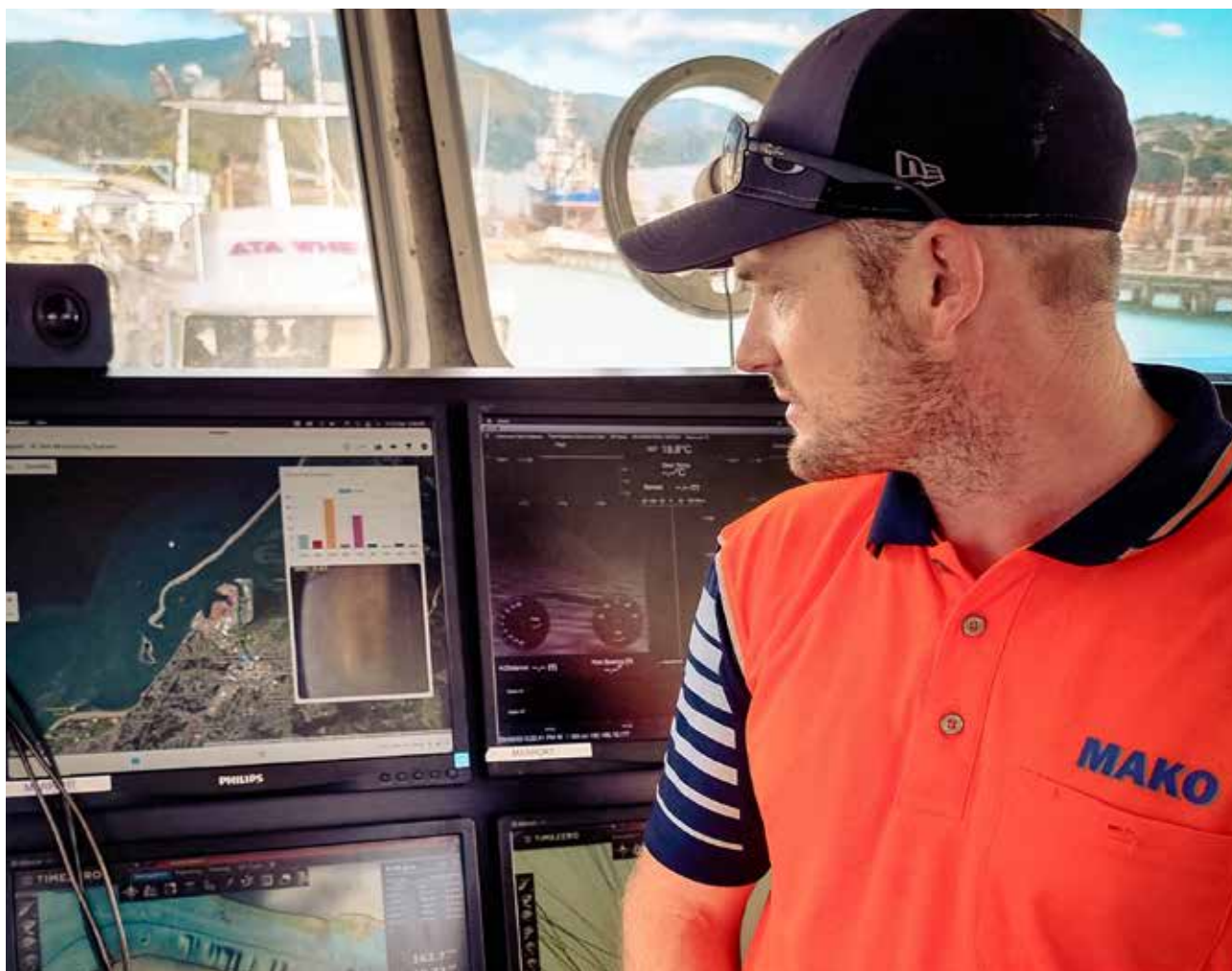
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# A day in the life of a tech entrepreneur



Domjan 'Dom' Talijancich's DeepSet camera technology is making waves among proponents of sustainable fishing.

When Seafood Magazine caught up with Domjan 'Dom' Talijancich in Whakatū Nelson, he was just back from a deepwater fishing trip on *FV Mako*.

Dom is the entrepreneur behind the company Advanced Conservation Solutions (ACS), which has developed DeepSet – a camera with machine-learning algorithms that can identify the type of fish species, as well as the quantities of different species, entering a trawl net in real-time.

Dom's technology enables fishers to fish more efficiently and sustainably – something that every fisher wants to do.

Though DeepSet is making waves among proponents of sustainable fishing, ACS is at

that difficult phase between having a successful prototype and having a product on the shelf at a commercial scale.

This is typically part of the course for tech start-ups. Dom has a proven product, greatly wanted and needed by fishers and industry, that people talk about enthusiastically. Fast-tracking the development of the second DeepSet system, scaling up production and commercialising a product requires a bit more than popular support, however.

In business terms, Dom is in a bootstrapping phase, where start-up owners sink a lot of effort and their own funds into their business with little or

**“We are aiming to develop the DeepSet system to the point where the AI has the ability to identify various benthic features such as sea sponge, weed or coral and instantly alert a skipper who can take action to avoid it.”**

no investment by external parties. And when there is no sales income stream.

### **We need more footage**

The practical requirements of running a start-up keep Dom at his computer during every spare hour, labelling fish from video footage and training it. At this stage of development it is a manual process where Dom takes screeds of footage taken by cameras and trains the AI to recognise all the fish species in view.

He does it himself, in between fishing and family responsibilities.

“You need to train the AI to recognise every item in view, whether it’s a fish or a rock, from every conceivable angle, in every type of environment.

“A single gurnard can have many different subtle shapes and shades depending on the lighting and how it’s moving. Then there’s where the camera has been attached to a trawl net – AI will only work for the position on a net it’s been trained in.

“The more you train and iterate the AI model the better it is. At the start, I spent thousands of hours at home in front of the computer to get the ball rolling.”

Dom has the technical support of software developer Toby Bailey. After 18 months of research, development and trialling – enabled in part with a loan from Callaghan Innovation – Dom and Toby have succeeded with a proof-of-concept prototype system.

Toby is still involved, as a contractor to ACS. And fishing consultant Andy Smith is advising, pro bono, in a general manager capacity.

Dom keeps pushing forward, and having just about exhausted ‘all angles’ from his own trips on *FV Mako*, is now looking at putting DeepSet

cameras on different vessels, positioned on different parts of the net.

Expanding camera numbers and positions means the flow of footage to annotate and characterise for the AI is nowhere close to slowing down. To make this scaling-up feasible, ACS is working to develop Cloud-based infrastructure that would enable the annotation to be undertaken by a separate machine.

“I firmly believe that industry needs this technology, probably now but certainly within five years’ time.

“Right now, DeepSet is proven to do the job from an inshore boat, with reliable communication to 400 metres.

“We know this technology will be needed in all fisheries, so we are building a second system for deepwater vessels in New Zealand waters out to 2,000 metres,” Dom says.

### **Enabling smarter fishing**

Sealord is supporting the development of this second system by supplying footage from cameras on their fishing trips for jack mackerel (also known as *hautere* or *yellowtail*).

It is a very sustainable fishery, but the trick to a successful fishing trip is in being able to minimise bycatch. In the case of jack mackerel, it is kingfish that get in the way – they like to live in the same places.

“A big company like Sealord wants to know when kingfish are in the nets, which DeepSet can show. If a skipper can monitor the ratio of target catch to bycatch, they will know when and how to change position and depth of the nets, the speed of the tow and other variables that have a big influence on selective fishing – while the nets are still underwater and before a catch is landed.”

### **AI eyes on the seabed**

Another exciting application for DeepSet that Dom sees is its ability to monitor the seabed in real-time and share that useful information with fishers in the area.

“99% of the seabed footage I have observed during development is mud and sand.

“We are aiming to develop the DeepSet system to the point where the AI has the ability to identify various benthic features such as sea sponge, weed or coral and instantly alert a skipper who can take action to avoid it.

“We could essentially map fishing grounds and share the benthic layer data with the whole fleet so everyone can actively avoid any sensitive grounds.

“Prevention is far better than penalty – fishers have enough of those already,” says Dom.

**“I firmly believe that industry needs this technology, probably now but certainly within five years’ time.”**



# "catch fish...not cables"

There are a number of international submarine cables which come ashore in the Auckland area. These cables supply international communications for both New Zealand and Australia to the rest of the world.

New Zealand is a very isolated nation and as such is extremely reliant upon global communication via submarine cables. Here in New Zealand over 98% of all international communication is carried via submarine fibre optic cables. These cables are a key component of New Zealand's infrastructure and play a significant role in our everyday lives, the general economy and future growth of New Zealand.

These cables are laid in three submarine cable corridors in the greater Auckland area where anchoring and fishing is prohibited under the Submarine Cables & Pipelines Protection Act.

## These areas are:

- **Muriwai Beach** out to the 12 mile territorial limit where both anchoring and fishing is prohibited.
- **Scott Point to Island Bay** in the upper Waitemata Harbour where anchoring is prohibited.
- **Takapuna Beach** this runs from Takapuna Beach in the south to just north of the Hen & Chicken Island (opposite Taiharuru Head) where anchoring and fishing is prohibited.

**Note:** These protected areas are monitored by sea and air patrols.



## Symbols Relating To Submarine Cables

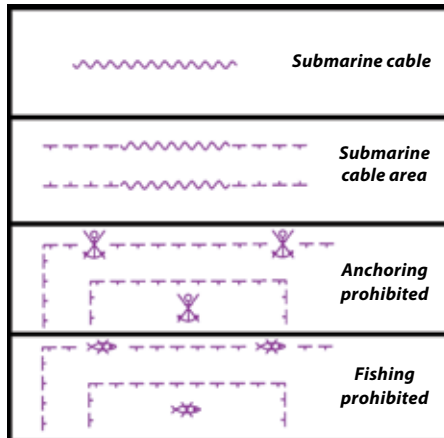


Figure 1.

## These are some of the penalties

- A maximum fine of \$20,000 for a non-commercial vessel.
- A maximum fine of \$100,000 for a commercial vessel.
- A maximum fine of \$250,000 for damaging a submarine cable.

Additional to the fine for damage, the cable owners would inevitably pursue the recovery of costs associated with repairs, this could be up to \$100,000 plus a day; a typical repair can take up to two weeks.

## Be Aware

These International submarine cables carry up to 10,000 volts to power the system repeaters along the cable.

## What should you do?

- If you are going into any of these areas, be sure to check your marine charts and/or GPS plotter so you know the exact locations of the prohibited zones. The relevant charts are NZ53, NZ5322, NZ532, NZ522, NZ52, NZ42 and NZ43. The symbols used to mark the zones are detailed in Figure 1.
- If you suspect you have snagged your anchor or fishing gear on a submarine cable in one of these areas, don't try to free it. Note your position, abandon your gear, then call 0800 782 627.

## What happens outside the prohibited areas?

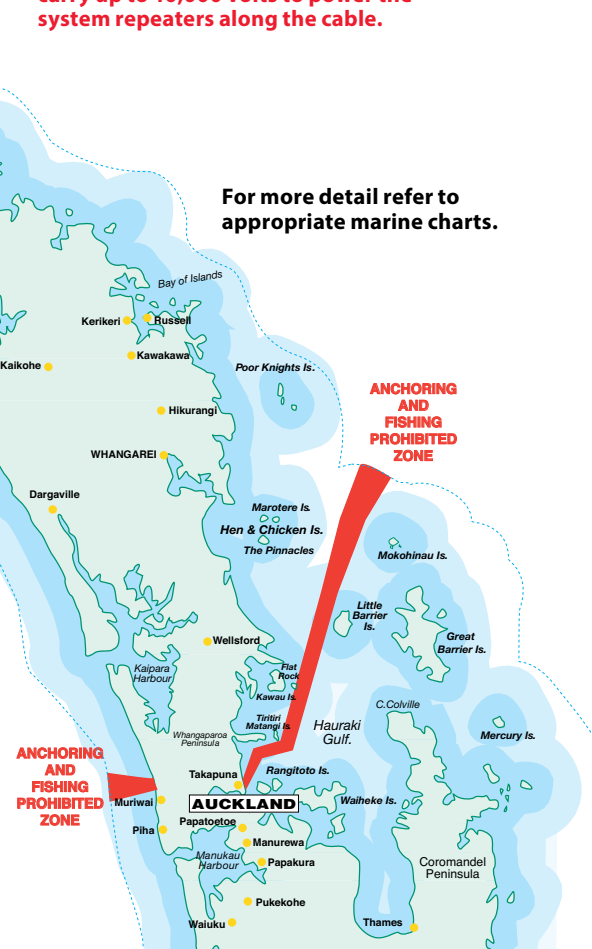
These cables are covered by the Submarine Cables and Pipelines Protection Act regardless of whether they are inside or outside a prohibited area. Beyond the confines of the "anchoring and fishing prohibited" areas, the cables are clearly marked on the appropriate marine charts.

Considering possible positioning inaccuracies and repaired cable section deviations, fishermen are advised to keep a minimum distance of one nautical mile from either side of charted cables.

## Note this number:

For any queries regarding submarine cables call: **0800 782 627**

For more detail refer to appropriate marine charts.



# The sustenance behind our seafood



Packed with vitamins, minerals, protein and those all-important omega-3 fatty acids, eating a range of seafood provides nutrients essential for good health in kids, adults and people who are pregnant.

**In 2023, the World Health Organisation (WHO) and the Food and Agriculture Organization of the United Nations (FAO) published the summary results of their latest joint study on the health impacts of eating seafood. Claire Williamson talks to registered nutritionist Amanda Brien about what makes seafood such an important part of our diets.**

Amanda Brien, a Tāmaki Makaurau Auckland-based registered nutritionist, says that from a nutrition and health perspective, variety is important. “We can’t get all of the nutrients we need from eating one single food or one single food group alone,” she says. “Compared with land-based sources of protein, fish have a different set of micronutrients.”

As anecdotal evidence, Amanda points to the so-called Blue Zones – regions of the world, including Ikaria, Greece, and the Ogliastra region of Sardinia, where people live longer than average. She notes that what their diets have in common is an emphasis on plant-based foods – vegetables, fruit,

wholegrains, legumes, nuts and seeds and that while they have fish and eggs a few times a week, red meat is eaten far less.

“There’s a body of evidence that reducing your saturated fat intake has health benefits, because this type of fat is linked with increased risk of heart disease. Switching a beef or chicken dish with fish is one way of lowering your intake.”

A panel of 21 international experts contributed to the Joint FAO/WHO Expert Consultation on Risks and Benefits of Fish Consumption, published in October 2023. They analysed new scientific evidence to assess the health benefits and risks

## FEATURE

of seafood, and while the full report is still to come, its initial conclusions are pretty clear: there are health benefits to eating fish during all life stages – pregnancy, childhood and adulthood.

Packed with vitamins, minerals, protein and those all-important omega-3 fatty acids, eating a range of seafood provides nutrients essential for good health in kids, adults and people who are pregnant. There's strong evidence that eating seafood reduces the risk of cardiovascular and neurological diseases, and improves outcomes for babies when their mothers eat seafood during pregnancy.

So what are some approachable ways to incorporate more seafood into your diet?

"Mussels are a really great one from a nutrition and affordability perspective," Amanda says. "You can really get bang for your buck there in terms of micronutrients.

"From my experience, people can be put off by the texture, smell and the look of mussels and other fish. Adding sauces and other flavours that are familiar can help reduce barriers and encourage people to eat more fish. It doesn't have to be anything flash, simply some lemon or lime juice with some herbs, spices, ginger or chilli can do the trick. With our high-quality, natural products like seafood, we want minimal processing to help retain nutrients.

"It could just be a substitution: if you already like burgers, for example, why not swap out a beef or chicken patty for fish, or something else you're familiar with."

And for people who are pregnant or concerned about the potential presence of mercury or other

**"There's a body of evidence that reducing your saturated fat intake has health benefits, because this type of fat is linked with increased risk of heart disease. Switching a beef or chicken dish with fish is one way of lowering your intake."**

contaminants in seafood, Amanda points to the Ministry for Primary Industries' (MPI) recommended weekly servings for different fish species, many of which have no restriction.

"The fish we probably eat more often – things like gurnard, hoki, John Dory, or even eel, if you're into them as well, don't have any restriction on how often you should eat them in terms of mercury intake," she says. "Food safety is another consideration during pregnancy, so make sure seafood is cooked thoroughly until piping hot (over 70°C), and any raw fish or shellfish shouldn't be eaten."

Amanda also notes New Zealand's status as a maritime nation, with close ties to the Asia-Pacific, means there is a strong cultural aspect to the foods we eat.

"When people understand where their kai comes from – when they're involved in the whole garden- or ocean-to-table process – that can be a great way of helping them to value their food and even give something different a go."



Seafood is a good source of protein, containing all nine essential amino acids.



## What makes New Zealand seafood so good for us?

### Iodine

Iodine intake is important for our thyroid and brain development. Humans can't produce iodine on our own, which means we need to get it from our diet. According to Te Whatu Ora Health New Zealand, New Zealand's soil is naturally low in iodine, which means that iodine levels in locally produced vegetables, fruits and grains are also low. Many species of seafood – fish, shellfish and seaweed – are naturally good sources of this essential mineral. In New Zealand, commercially produced bread and salt are also fortified with iodine to supplement intake.

### Omega-3s

Another essential nutrient humans can't naturally synthesise in our bodies, long-chain omega-3 fatty acids are important to support heart health. Many seafood species are low in saturated fat making it a good choice of protein. A number of them are a good source of omega-3, particularly 'oily fish' like salmon, tuna (yes, canned counts), sardines and anchovies, but white fish such as tarakihi or hoki are also good to include in your diet.

### Protein

Protein helps you build muscle, is necessary for growth and development of bone in children and is full of essential amino acids we need to support just about everything in our bodies. Seafood is a good source of protein, containing all nine essential amino acids.



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TAURANGA

# Minister Shane Jones: “I’m

There has been a lot of opinions shared of late about new Minister for Oceans and Fisheries, Shane Jones – he’s too close to industry, he’s business-first, he doesn’t care about the ocean.

So, what does the Minister have to say about all of this and of his new role? Seafood NZ GM of Communications Fiona MacMillan was able to catch up with Minister Jones not long after he was appointed, for a lengthy conversation on his vision for the industry, aquaculture, trawling, deregulation, discordant voices, and more.

happy to be back"





Minister Jones wants to enable the New Zealand seafood industry to continue to generate economic activity by providing high quality sustainable seafood to the rest of the world.

**What's your vision Minister for the industry for the time that you are going to be working with us? What would you like to see for the industry in the near future?**

Well, I'm really happy to be back, number one in politics, but to be back in the space of fisheries. And I want everyone to take on board a little bit of history. Although I grew up on a farm in Awanui, north of Kaitia, my background was farming but we grew up with lots of fisheries in our family and in our background as well. And then after the whole Māori fisheries experience of the late 80's and the 90's, and then rising to the position of Chair of Sealord and Chair of Te Ohu Kaimoana, prior to coming into politics in 2005.

Now as to what we want to achieve, if I can start with aquaculture, I want to be the politician that convinces my colleagues that as pressure grows in terms of our terrestrial industries, we can turn and ranch and farm the ocean. That we in the future will begin to emulate

what Norway has achieved in terms of its ocean environment. And that can only be done by stripping the obstacles and creating a facilitating environment through the law that rewards people who are going to make an effort, take a risk and spend money expanding aquaculture out into the ocean.

On the question of the fin fish, I know that in some respects our wild catch is capped. There's only so much we can take out of the ocean. But the world is going to need protein – don't overlook how popular our products and our exports will be and I want that to increasingly come from fisheries with higher value.

So underlying all of that is a willingness to be an advocate, is a willingness to be fair and also an acknowledgment that I have to operate in a statutory framework. But if the statutory framework needs to be refined or changed then I'm willing to lead those debates, endeavour to convince my colleagues and keep the confidence of the people at the top of the government, not least of which is the Prime Minister

and my own leader and also work with my colleagues from the ACT party, so that they understand that when we are trying to deregulate, deregulate means making it easier for industries to flourish.

And just because we're going to do a bit of deregulation, it shouldn't turn into a catastrophisation that all of a sudden we're going to plunder Tangaroa, or plunder what's left of our coastal fish-based resources. And you know, there's trade-offs. But the industry itself realises there are trade-offs and politicians have to make decisions, but let these decisions in my case be driven by information not just from the loud discordant voices from the NGO sector, but the voices of the industry as well through their various peak bodies.

**You mentioned the NGOs and the discordant voices. Do you believe that we as an industry have a social licence problem?**

I think that has been exaggerated, I do believe the industry has to go continuously on a charm offensive. But these are legitimate rights that New Zealanders hold, irrespective of the whakapapa, whether it's the iwi or the kiwi or whoever holds these rights. And these are legitimate contributors to our economy. And I'm sick to death of people in the extractive sector, whether it's the farmers, the miners, the foresters, the fishers, or indeed now the vegetable growers who are continually being told that your social licence is on rickety ground. I resent that and I'm going to fight that, every step of the way.

Just because voices that are vociferous, voices that are voluminous, just because they capture click bait attention doesn't mean that there's a problem with the social licence. What it means is that it's contested space. So, the industry stand up and defend what are your legitimate rights. But rights Fiona only exist when you also observe you have obligations and I'm a great one for encouraging people to take on board their duties as well as their rights. But I'm not going to sit back over the three years and allow this din of denunciation to drive the voices who represent industry to the margins of this debate.

**We talked about social licence, trawling has a really big social licence problem at the moment, it has become a target for the NGOs particularly and hence some of the arguments in the Hauraki Gulf for example. What's your view on trawling as a fishing method?**

Trawling as a fishing method is a legitimate type of economic activity in New Zealand and I have no desire to lead any campaign to disestablish



Minister Jones wants to be guided by economics and science, not just one side of the equation.

it within New Zealand. Secondly, I'm in the midst of taking advice as it relates to Hauraki, because I've got to get up to speed on the finicky details, I'm conscious that that's an area of great contentiousness for a lot of the stakeholders in the Hauraki broader marine debate. I want everyone to know, these are legitimate rights, these are legitimate enterprises, these are not people peddling illegal substances. These are people who are getting up at ungodly times of the day and going out there and generating a living to keep their families afloat and generate foreign exchange earnings or indeed supply fish to New Zealand consumers and yes there will be trade offs and that's not to say that I've already made my mind up as to which of the four options that at some point in time our team, well the Government actually, needs to turn our attention to, but I'm still taking advice about that and I don't want anyone [reading] this believing that the fisheries minister is

not going to stand up for what I conceive to be honest god fearing people undertaking enterprises that have a legal statutory basis and they are entitled to do that for as long as they are obeying the law.

**What are your thoughts about what some of those “discordant voices” are likely to say. Because the things you are saying right now are going to be music to the ears of many in the industry who felt unappreciated and frankly felt vilified for such a long time. But they are also aware that some of the groups that don’t like fishing are going to say “well Shane Jones would say that wouldn’t he, he’s a fan of fishing”?**

The best place to hide is in the open. The first thing that will be said is that Shane is in the pocket of the industry because they have supported him through donations. That is a legitimate part of the democratic contest. If New Zealanders obeying the law, following the disclosure requirement of a democratic election, want to contribute towards our party or indeed to myself as a candidate, that is fully declared. And people can endeavour to demonise my personality through that association, it however will not dent my professional duty as a senior New Zealand politician to be a steward of the entire sector but also stand up against intimidation so I am expecting a fair degree of that but providing I think that going forward people have an opportunity to participate and affect the outcome the fishing industry has been marginalised, it has been trivialised, but most importantly it has been demonised by a well organised, highly, highly sophisticated group of, I hesitate to call them bullshit artists, but the reality is that trading on the basis that everything about fishing is bad, that’s not true. The people in the fishing industry are not bad people. The industry creates a great deal of wealth, a great deal of positive economic output for the industry. They deserve respect and with me at the helm they’re going to find someone who will boost their fortunes in the public discourse.

**And then finally one thing that at seafood New Zealand we’ve banged on about for a while is our desire to make sure that science and data are the basis for good decision making. How do you feel about that?**

I really want to be guided by economics and science, not just one side of the equation and the science does have to take account of the status of

recreational fisheries which is a huge area. A wee bit of that is going to be shared I suspect with Mr Todd McClay but I want everyone [reading this] to know that my predominant interest in this portfolio is ensuring that this industry contributes to our export led recovery, that’s the mandate that the Prime Minister has asked me to lend my shoulder to, that’s the expectation that my own leader Winston Peters has asked me to help deliver upon.

So you may not hear me talking a great deal about mataitai fisheries and customary fisheries. I mean obviously as a Māori I know they’re really important, but I’m a wee bit different than some of the other MPs of Māori decent in this way.... If science reveals to us that a resource is so stressed that the public have to be excluded, then Fiona it’s the whole public. I don’t like this idea that you have these marine protected areas or you have these reserves but you continue to provide access for the local hapu. My hapu, most of whom live in Auckland, they’re not going to enjoy that access because they don’t have a marae or a settlement near these areas. So, if the science is so severe that all of us have to stand together and enable the resource to recover then that’s everyone.

**Is there anything else you want to add?**

Look on the business of climate change, there’s mitigation and adaptation, climate change will continue to be a very important issue and obviously New Zealand has a role to play in terms of delivering outcomes that will contribute towards a global effort, but let’s not get ahead of ourselves, let’s not allow the most cantankerous or the most apocalyptic voices to draw us into areas where we cannot afford to go. You cannot contribute to climate change remedies unless you are generating an economic surplus.

I just want everyone to know that when the climate change activists come for the fishing industry I’m not tolerating their fakery. We have a positive, we have an uplifting story to tell in terms of carbon footprint but more importantly the ability to engage in an industry that can help feed the world. The climate international deals clearly provide for ongoing food production, I mean it’s mad that I’m even having to say this in a public interview and we seem to have deprecated that provision in our international climate architecture, which enables New Zealand to continue to generate economic activity and offer and provide food to the rest of the world. And until such time as my political breath expires you’re going to hear me give that message.





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# IFISH6 conference: Time to focus on the fishers, not just the fish



Darren Guard and Shalaine Jackson at the IFISH conference earlier this year – the only international conference dedicated to fishing, aquaculture, and seafood processing health and safety.

**The world is starting to focus on the fishers not just the fish, says Darren Guard – Managing Director of Nelson-based Guard Safety and member of the NZ Fishing Health and Safety Forum, following his time at the International Fishing Industry Safety & Health Conference (IFISH) in Rome.**

IFISH is the only international conference dedicated to fishing, aquaculture, and seafood processing health and safety. IFISH is advised and organised by the Food and Agriculture Organization of the United Nations (FAO), the Northeast Center for Occupational Health and Safety (NEC) and the National Institute for Occupational Safety and Health (NIOSH).

According to Darren the conference is “the place to be” if you want to understand what the rest of the world is doing about health, safety, and wellbeing in the seafood sector.

Over 50 countries attended the conference – a mix of both developed and developing countries. The New Zealand contingent included Darren, Guard Safety Business Manager Shalaine Jackson, and Dr. Fatima Junaid - Massey University.

“We presented on health, safety and wellbeing

down under – including the Health and Safety Forum, MarineSAFE, FirstMate and the Massey psychosocial research on the key stressors for our seafood people in NZ. The findings of the Massey research highlighted that regulation in NZ fisheries was the key stressor,” says Darren. “We were incredibly well received. In a sea of academia and a sea of policy, people enjoyed hearing from someone in the industry, who really knows the industry.”

Darren says New Zealand is a world leader in the health, safety, and wellbeing space when it comes to the seafood industry, and we’re well into the “doing something about it” phase, while many are still in the talking phase.

“We’ve since (the conference) had a lot of people reach out, and because a lot of our stuff has been implemented – MarineSAFE, FirstMate – we’ve been able to share resources. We want to keep





Darren Guard presents on health, safety and wellbeing down under.

encouraging that international collaboration.”

The wellbeing of seafarers is what Darren believes was the number one theme that came out of this year’s conference. “The fact that increasing regulation and societal pressures are really impacting not only the profitability of our industry, but the overall wellbeing of our seafood workers globally is becoming a real focus.”

“Here at home, we can’t just say it’s the fault of local lawmakers, because a lot of the regulation that they are implementing is driven by international conventions and standards.”

Darren says some of the international organisations in attendance, including International Maritime Organisation, FAO, and the International Labour Organisation, acknowledged that they

are likely not helping the issue because they are creating a lot of international regulation that doesn’t work for the seafood sector.

“They argued it’s because the seafood sector doesn’t have the international voices that other industries have, that we don’t give them the feedback they need when they’re creating some of these policies. And they’re right.”

Darren stresses the need to now come together to work with international organisations to make sure future regulation is relevant.

“It’s about communicating and collaborating on an international level to make sure we can raise health, safety and wellbeing standards in a pragmatic, industry relevant way,” says Darren. “It’s music to my ears.”

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# Nathan Hines – A view from the water



Timaru-based Nathan Hines skippers *Latham Bay*, a 12m trawler.

**Nathan Hines from Timaru fishes solo in the mixed fishery in the Canterbury Bight. He skippers *Latham Bay*, a 12m trawler. He's 41 years old and has been in the industry since he was 16 and straight out of school. He is a dad to two, including a new baby who is just three weeks old.**

If I had one thing I'd really like people to know about the life of a fisherman, it's what a good life it can be. If you're prepared to roll the sleeves up and do some hard graft, it's such a rewarding and enjoyable lifestyle that a land job would struggle to match. That is something that always rings true when I think of my time so far.

That's not to say it's easy. It is tough out there right now. My turnover each year is my wage. Costs

are high. Any extra compliance costs mean bread off my table. It's not just compliance costs, it's everything, everything is up in the last three years. Berthage fees go up every year. Even the cost of anti-foul has tripled in the last three years. Don't even want to mention fuel.

But the price we get for fish hasn't kept pace. I go into the supermarket and I see a whole kahawai for \$20, well I get \$1 of that. And that's not including

the cost to catch. And I think in fishing, we feel it's death by 1,000 cuts. When I first started in this business there were nine day-fisherman in Timaru. A decade later there's just two of us. When you think about that, it makes you wonder if the end is inevitable.

But it's an awesome profession. I love it. I will do it for as long as I can. I do it because of the call of the sea. It's the anticipation of the catch. It's the same excitement as catching a big fish on a rod. Every time you haul up the bag, it's exciting. It's also beautiful out there. When I'm out and I get that view of Mt Cook poking out of the clouds, you can't beat that. It's a nice feeling.

I've got a background in net making as well as fishing. After my first 14 months at sea as a teenager, I went to the net sheds and learnt to build trawl nets. This gave me a skeleton key to the industry because every skipper wants you when you have those skills. And even now, I am building nets for a number of people in the industry. I've been able to experiment with designing different net types, mesh size and orientation to reduce bycatch.

I'm not paid to catch shells and sand, and I also don't want to catch small fish. If I can leave them in the water, then they get more breeding seasons. The new gear is good for the industry as a whole, if we're all reducing bycatch it helps everyone. It also helps improve fuel efficiency. I feel like I've got the right net design nailed now, but there's always things to tinker with.

I've also been involved in a study into how Hector's dolphins interact with trawl gear. The study was funded by MPI. I worked alongside Jasco Applied Sciences on the design and placement of hydrophone equipment on my trawl doors, then was left to go about my fishing. I did 23 sea days with the equipment listening and recording the dolphins so we could count and locate them, as well as monitor their activities.

We love seeing the dolphins out there. I fish around them all the time, I call them my fishing buddies. They are very smart and know how to use the trawl vessels to help get their own catch. But we never want to catch one. I've never caught a dolphin although the risk is always there.

Dolphins are bloody intelligent and fast so the risk to them, for the most part, isn't high. It's when we make a change, like when we haul/shoot the gear or when we turn, that the risk increases. Part of the study was to look at how effective the dolphin dissuader device is at keeping dolphins away. It's about finding a way to ensure their safety but not push them out of the area. It was interesting stuff, but more funding is needed to develop a remote



Nathan has been in the fishing industry since he was 16.

dolphin dissuader device that keeps dolphins away from the gear at times of high risk.

Like I said, we don't want to push the dolphins out, but we don't want to be pushed out either. The talk about new marine reserves that comes up every year or two is very stressful. As an artisan style day-trawler, if these reserves they've being talking about go ahead, it would be the end for me and that has a big impact. It nearly brings a tear to the eye because I love fishing and I want to keep doing it.

For a young person getting into fishing, the opportunity is massive. If you keep clean, learn everything you can, add that sea-time up and get those tickets, you can aim for the driver's seat. That is the best seat in the house.



# NZ fisheries in good shape

Dan Bolger, Deputy Director General, Fisheries New Zealand

Seafood exports are expected to reach \$2.3 billion this year (to 30 June) – an impressive 8 percent increase on the previous year. It's also looking encouraging for the next year with seafood exports forecast to reach a record of \$2.4 billion.

While we focus on improving export opportunities across the seafood sector it's good to see that overall, New Zealand's fisheries are in good shape. What's reassuring is that our high-quality seafood

is sustainably sourced, and the proportion of evaluated fish stocks with no stock sustainability risk continues to increase.

We can all take some pride in the fact that New Zealand's fisheries are in good shape. It is the result of industry, government, and the wider community working together to invest in good information and necessary change over generations.

Our latest assessment on the status of our stocks, to December 2023, shows that most of our fish stocks of known status are doing well and are above the soft limit, indicating no evidence of a stock sustainability risk. For stocks of known status, 97 percent of catch comes from stocks above the soft limit.

Scientifically evaluated stocks account for 75 percent of the tonnage of landings and 79 percent of the value of landings, including most of the main commercial fish species. While quantitative stock assessments may not be possible for some fish stocks, there are research surveys and other information that can be considered to help underpin management actions.

While most stocks remain in good condition, we'll continue to closely monitor the health of our fisheries and the ecosystems that support them.

Along with our various management and monitoring functions, our nation-wide team of Fishery Officers play an integral role in this success with their dedicated patrols that help protect the fishing resources and keeping them sustainable. We've seen a lot of their work highlighted in the media over summer, in particular recreational fishery patrols and the ongoing challenge with poaching activity. Left unchecked, poaching affects all sectors and can be detrimental to the health of local fisheries.

An area of immediate focus is to improve the health of our fisheries is kina barrens – an issue that crosses all fishing sectors and interests.

The Government has signalled a major shift in direction to accelerate work to address kina barrens including support for community- and industry-led initiatives along with proposals for special permits and increased recreational daily bag limits for kina. Details on these proposals will be available soon when public consultation begins, and I encourage everyone to have their say.



Dan Bolger.



# Hot and cloudy waters ahead: forecasting the value of the pāua fishery



Paua and net underwater. Image Terra Moana.

Flourishing fisheries rely on understanding environmental risks, uncertainties, and opportunities in a changing climate.

The pāua fishery is an ideal test subject for understanding the impact of climate change — hotter seas and more sediment affect the size and health of pāua, and the value of the fishery. Finding ways to adapt, limit stressors, and invest in restoration rests on being able to forecast scenarios in a changing environment. A better understanding of the risks can inform response strategies and investments in fisheries.

New research from the Sustainable Seas National Science Challenge has tapped into expertise from biology, business, and banking and explored a way to

embed the impact of climate change into decision-making.

Researchers have released a new bio-economic risk model for the PAU2 fishery, which means fishers, iwi, and investors can test different scenarios on the potential value of the fishery. These scenarios could help drive strategic, organisational and management change, and adaptive business strategies.

Co-researcher, Katherine Short says the research project benefited from bringing together biology and economics. “The holy grail is bringing natural systems knowledge together with economic and financial knowledge. If you can get those things to work and talk to one another, your recommendations are so much stronger.”

## SUSTAINABLE SEAS

Tony Craig, co-researcher, says, the model can explore the 'what if's' and what that might mean for different fisheries. "At the industry, fishery level, collective action is needed to enable responsible quota owners to progress fishery management improvements."

### An easy-to-use bio-economic model

The Pāua Quota Valuation Bio-Economic Model is a simple, easy-to-use model with standard spreadsheet software (Excel). The model has forty worksheets — two of which take information from users. The model performs calculations, aggregates and graphs results, and gives financial value information.

Users can choose from up to 31 different PAU2 fishery sub-zones. Each sub-zone has its own sheet that calculates annual recruitment success, growth, distribution by length buckets, weight, recreational, customary, and illegal catch by numbers and tonnage, commercial catch by numbers and tonnage, instantaneous mortality, and opening and closing balance numbers of pāua each year under the chosen scenario.

Users choose the percentage of the population in each sub-zone and create their own scenarios related to recruitment success, instantaneous mortality, growth transition, fishing mortality, and valuation factors over time.

Katherine says the scenarios are proxies for types of environmental change. The aim of the model is to help avoid situations where people say, "If I had known what the lost quota value would be, what could I have spent on investing in improvement, minimising sediment, and in remediation?"

Using the scenarios, the model produces four types of graph:

- A comparison of the total allowable commercial catch (TACC) with the estimated commercial catch
- The capitalised value and the estimated commercial catch each year in kilograms
- The aggregate closing population of pāua, with the number of pāua available for fishing each year, and the weighted average length of all pāua
- The weight of pāua available for fishing that remains after assumed customary, recreation, and illegal catch (CRIF), the estimated commercial catch, and the estimated percentage of aggregate pāua that have reached the minimum legal size for fishing each year.

### The model was developed in four stages

Researchers developed the model in stages.

1. Establish a baseline.
2. Model the biomass.
3. Calculate the value of quota.
4. Build and present the model.



Storm Stanley, chair of the Pāua Industry Council says confidence drives the value of pāua. "Modelling can help tell what's coming and what can we do about it. The threats are real — more marine heatwaves, acidity, storms, flooding, and sediment."

Tony says climate risk modelling is new, complex, and challenging. The model isn't predictive, but a starting point that can be adapted and used more widely in future.

"Users can choose their own assumptions and plug and play. Pāua are the canary in the coalmine. See what happens to the value of the catch in the different scenarios? Have a play."

He says the model is a structurally sound financial model that can be adapted with future data. More information is still needed, for example better knowledge of interrelated stressors. Better information can come from working together.





### Financing a blue economy — collaboration is key

In a changing climate, finance is an important piece of the puzzle in supporting the value of the pāua fishery.

As one of New Zealand's largest lenders to the seafood sector, ANZ was part of the research team.

"We can see that to adequately understand the risks and ensure the sustainability and resilience of the pāua industry, it's vital that the industry collects and shares data on these environmental changes," says Dean Spicer, ANZ's Head of Sustainable Finance.

"This data can help inform better decision making and give us the opportunity to consider how we can mitigate those risks."

He says rising stakeholder expectations about sustainability and new regulations that require New Zealand's largest financial institutions to report on their climate-related risks and opportunities are also driving change.

"To attract investment, businesses need to be able to understand climate risks and explain how risks are incorporated into their strategy," says Dean.

Katherine says that collaborating on data collection is important for the sector. "You don't want a dozen buoys run and operated by a dozen groups, all paying for and collecting their data separately. You want two

or three buoys in the right places, all paid for by the dozen groups that care and then slicing and dicing the data." It's about a coordinated effort that will reduce costs and provide data for all parties.

Working together across disciplines is key to this type of modelling being used more widely and making a difference in sustainable blue economy businesses responding to climate change, says Katherine.

"Everybody along that supply chain from diver to processor, Moana New Zealand to quota owners, the iwi that own Moana New Zealand — everyone could share in the cost of environmental monitoring and the environmental response."

"When we prioritize the health of the pāua fishery as an indicator of success, we can have a completely different mountains-to-sea approach", says Katherine. "When different perspectives are brought together — like modelling, industry, business perspectives, and valuation — the opportunities are enormous."

"The small things you could actually do matter. The success of the new model is thrilling."

Find out more and access the model on the [Sustainable Seas website](#)





# Young Fish Aotearoa NZ

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[www.youngfish.co.nz](http://www.youngfish.co.nz)



# The Continuous Plankton Recorder

How an industry/science partnership using steam-age technology is improving our monitoring and understanding of the Southern Ocean.

Jack Fenaughty



*The Discovery* held up in congested pack ice off MacRobertson Land Antarctica. Image: Dundee Heritage Trust.

This story begins with Sir Alister Hardy (1896-1985) who invented the Continuous Plankton Recorder. Sir Alister was the son of an architect, and following war service went to Oxford in 1919, studying zoology, graduating with distinction. He was taken on as a zoologist on the *RRS Discovery* voyage to the Antarctic between 1925 and 1927 and it was during this voyage he invented the Continuous Plankton Recorder (CPR).

A CPR survey implemented in 1931 in the North Sea and North Atlantic is still carried out today - one of the world's longest-running marine biological monitoring programs.

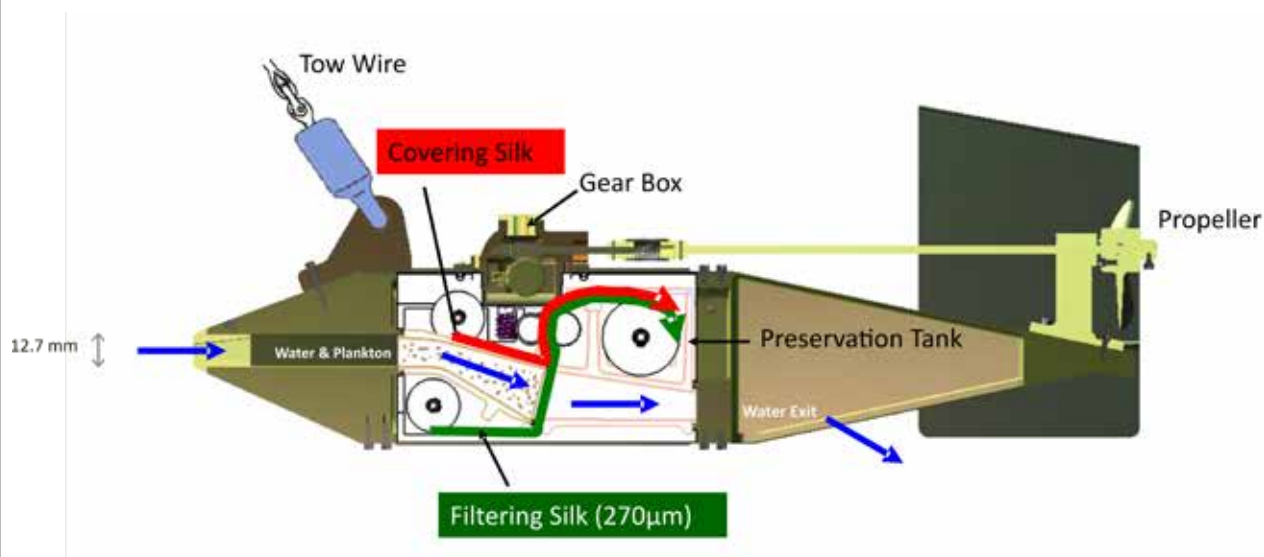
Sir Alister was knighted in 1957 to recognise

his groundbreaking work in marine biology. His innovative research into plankton and his design of the CPR are still the basis for much of the global plankton work carried out today. An initiative that has identified and continues to monitor major changes in marine ecosystems.

Since 1931, the design of the CPR and subsequent analysis techniques have changed very little. We use the same basic design, with some minor modifications to cope with more extreme sea conditions in the Southern Ocean. The CPR does not need any batteries, apps, or digital technology - just brass gears, steel wires, a bit of preservative, and a clever design that has stood the test of time.



## How does the CPR work?



A Continuous Plankton Recorder is a 1-m-long torpedo-shaped device containing an internal “cassette” to collect plankton samples. Towed about 10 m below the surface, seawater enters the CPR and is filtered through a fine silk mesh that captures the plankton. A second layer of silk covers the first, forming a plankton “sandwich” before being preserved in formaldehyde. The external propeller advances the silk one centimetre for each nautical mile towed, independent of the vessel’s speed. Each cassette covers 450 nautical miles (833 km) of ocean. Back at the lab, the silks are unwound and cut into samples ready for analysis using light microscopy.

The internal workings of the CPR (after New Zealand Aquatic Environment and Biodiversity Report No. 257 - Fisheries New Zealand).

In 2008 an agreement was made between the government (now MPI), Sanford Limited, and NIWA to use Sanford science representatives on the longline vessel *San Aotea II* to carry out CPR transects on north and south transits between New Zealand and the Ross Sea toothfish fishing grounds.

NIWA trains Sanford vessel scientific

representatives to load the internal cassettes with new silks, replace these in the CPR at about 410 nm intervals, deploy and retrieve the CPR, label and preserve the samples silks, and carry out all associated recording of location and time. Post-trip analyses on the collected material are conducted by NIWA. Support for CPR equipment and training is also provided by the Australian Antarctic Division (Hobart, Australia) and the Marine Biological Association CPR Survey (Plymouth, UK).

The project was designed to map quantitative changes in the distribution of epipelagic plankton (such as phytoplankton, zooplankton and euphausiid (krill) life stages), both within New Zealand’s EEZ and the Ross Sea, Antarctica. Today its scope goes much further including the collection of microplastic in the Southern Ocean.

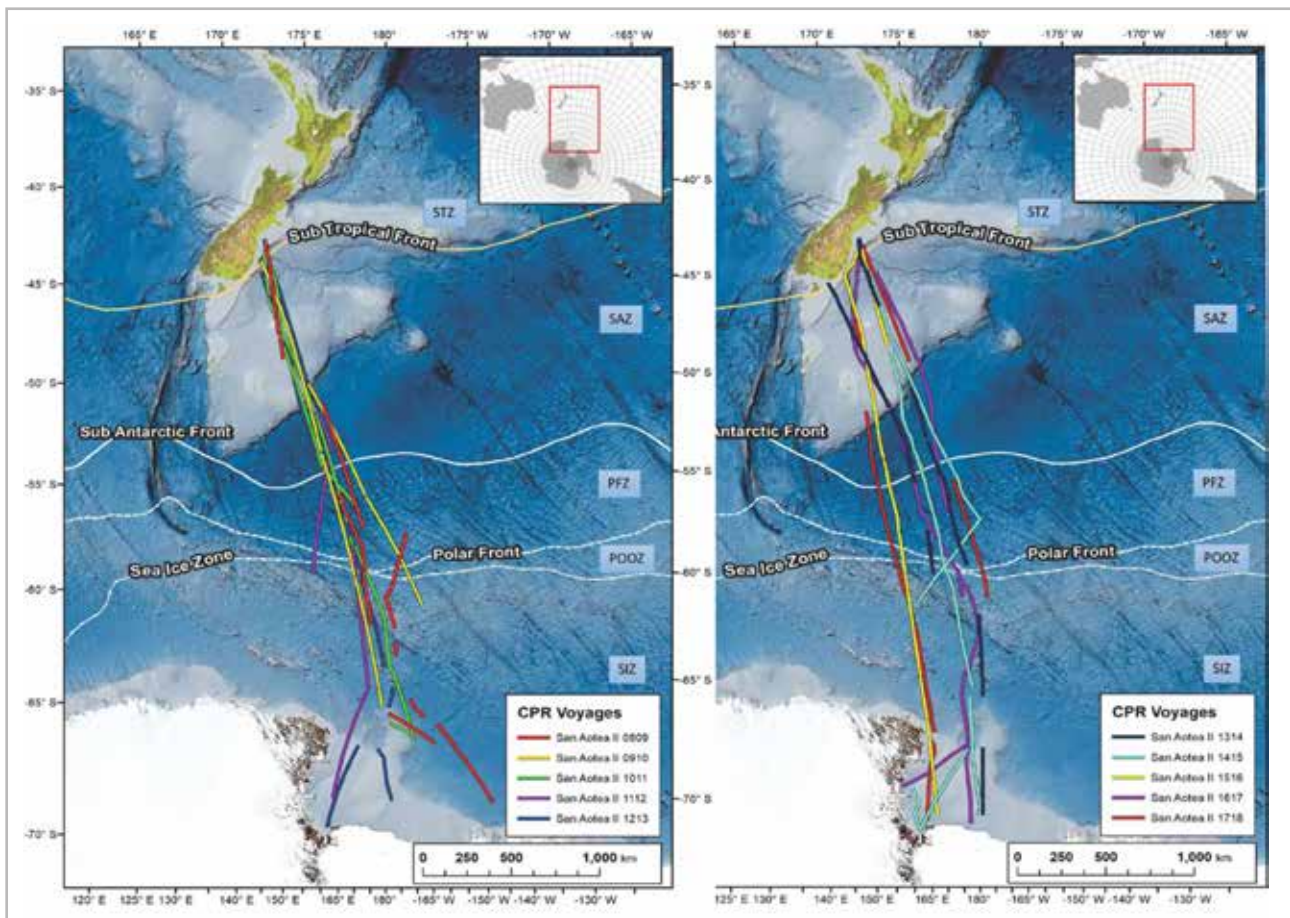
Since 2008 about thirty north and south transits, covering five latitudinal zones, have been carried out by *San Aotea II* with additional cross Southern Ocean transects conducted by *San Aspiring* to and from the South Atlantic Patagonian toothfish fishery.

This is now one of the longest-running CPR time series projects from the southern hemisphere/



A former Sanford science rep preparing a CPR for deployment. Sanford also undertook several transects across the Southern Ocean between New Zealand and the South Sandwich Islands.





Total annual pup production estimates for New Zealand sea lions on the Auckland Islands.

Antarctica and continues to provide consistent, and with each season, increasingly useful trend information.

This project is a great example of industry support and cooperation (Sanford Limited) with government and research providers closing information gaps and providing an alternative and useful addition to more limited research vessel activities. This is critical in times of swift potential changes in the environment.

All CPR Survey data are freely available and used by scientists and policymakers worldwide to support improved management and conservation of the marine environment. For more information on Sir Alister Hardy and the CPR project see [cprsurvey.org](http://cprsurvey.org).

This is only one of several science projects carried out by Sanford vessels in this – the most southern fishery in the world. Other contributions include ongoing acoustic and environmental data collection in partnership with NIWA, collaboration with the Moana project to provide deep south temperature-depth data and the annual collection of air samples for GNS from the deep south.

**“Sanford values the importance of this programme, acknowledging its contribution to wider marine science and complementing other research undertaken by New Zealand fishing vessels. These voluntary activities, beyond CCAMLR (Commission for the Conservation of Antarctic Marine Living Resources) requirements, demonstrate our commitment to best-practice science in all fisheries we participate in.”**

**– Darryn Shaw, Sanford Group Manager Wildcatch.**

# Asian BBQ Snapper



Image: TVNZ.

Fisherman and barbecue aficionado Zak Olsen shares his recipe for BBQ snapper, with a flavourful Asian twist.



Zak Olsen and teammate Ash Matuschka.

## Ingredients

*"All measurements are rough, just like me!" says Zak.*

- 1 whole fish, approx. 1 kilogram
- 1 chilli, chopped
- Handful of chopped coriander
- 1 shallot, finely sliced
- A thumb of ginger, rough-chopped
- Half a bulb of crushed garlic
- Splash of fish sauce
- Glug of soy sauce
- Splash of rice wine vinegar
- Dollop of miso
- Sesame seeds and fresh coriander, for garnish

## Method

- 1 Gill, gut and scale the fish.
- 2 Score the entire fish, making slices that go almost to the backbone. The slices should be about an inch apart.
- 3 Combine all the wet ingredients and  $\frac{3}{4}$  of the dry ingredients.
- 4 Massage into fish and let it rest for 30 minutes (try not to pike yourself, mate!).
- 5 Preheat a BBQ or oven to 350°F/180°C
- 6 Place the fish into a foil tray or fish basket (if using a fish basket, place the foil underneath).
- 7 Cook on indirect heat for approximately 45 minutes or until flaky (times will vary depending on the size of the fish).
- 8 Remove carefully from the tray or basket and garnish with the remaining herbs and a sprinkle of sesame seeds. Serve with coconut rice or your favourite sides.



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## 66th NZFCF Conference & Annual General Meeting

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**Thursday 30th and Friday 31st May 2024**  
**Trinity Wharf Hotel, 51 Dive Crescent, Tauranga**

Go to [www.nzfishfed.co.nz/conference](http://www.nzfishfed.co.nz/conference) to register online  
or call Jade Webby on 04 802 1501

### FORMAL NOTICE OF MEETING

The 66th Annual General Meeting of the  
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Friday 31st May 2024, 10.30am,  
Trinity Wharf Hotel, 51 Dive Crescent, Tauranga

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5354 VERY GOOD TRAWLER  
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2 station steering - new  
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Fuel 8,000 litres  
Hold 10 tons + 3 ton bait  
32mile tuna drum & spare  
Survey to 30/10 2027  
FULL REPAINT OCTOBER  
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L 21.33m x B 6.03m x D 3.5m  
Triple skin Kauri / Hardwood  
Caterpillar D353 375hp  
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5 berths 2 cabins. Ice maker  
water maker, 25-30t hold  
Long line gear. Tuna poles.  
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Survey Offshore 200 miles  
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Fuel 1770L. Water 220 litres  
Max speed 15 knots  
2 berths, galley, table, seating  
Shower/toilet. Good electronic  
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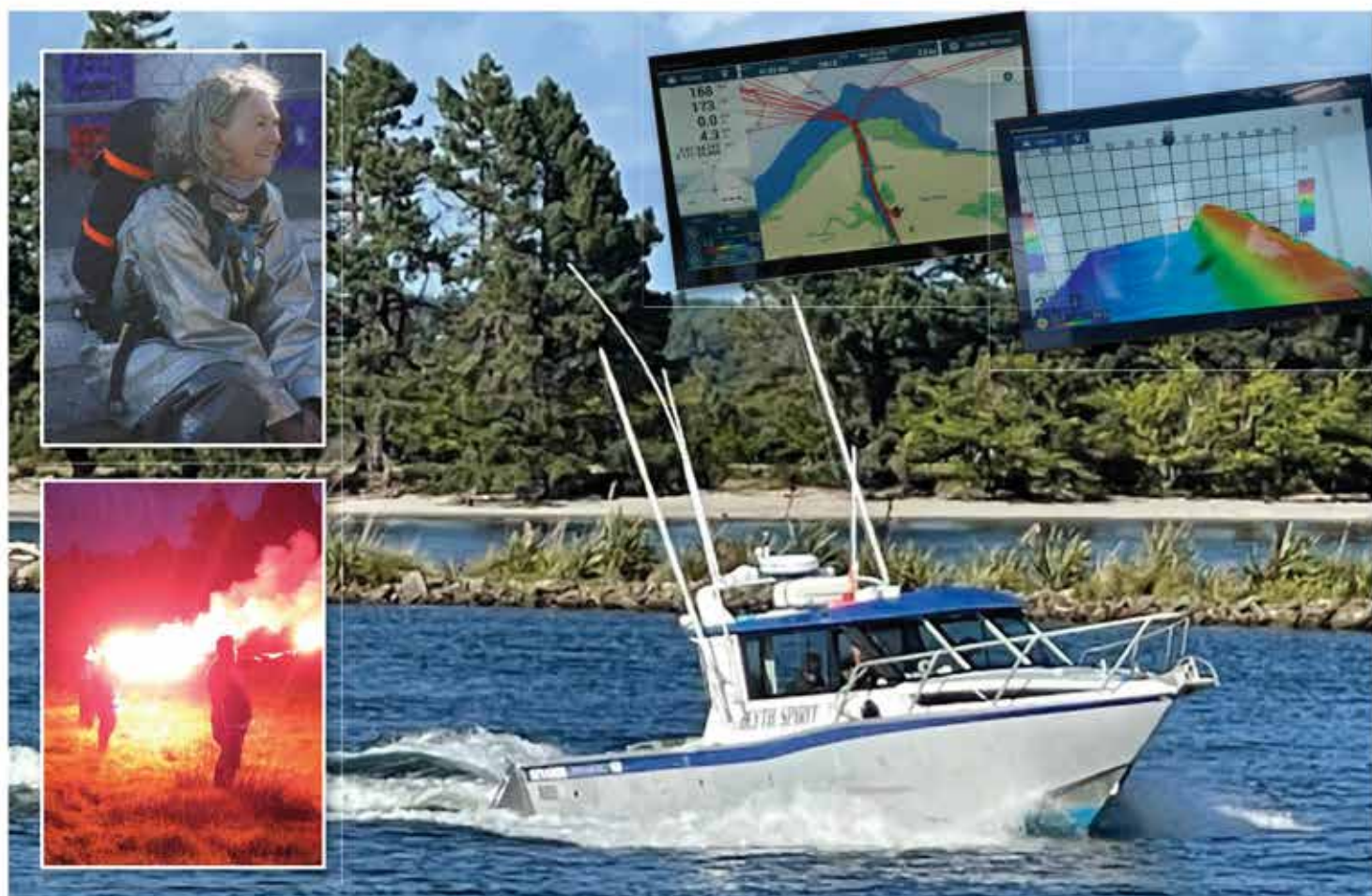


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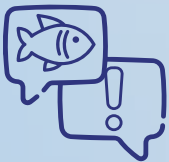
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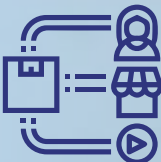
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