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Seafood

NEW ZEALAND

From a life of fishing to fine art p 28

Cover: One fish, two fish: science and the QMS p 22

Top of the South showcases seafood riches p 31



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Alternatively contact 0800 THE GRID or 0800 843 4743.

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From the Chief Executive



The seafood industry supports measures to protect marine diversity. The health of the aquatic environment is the cornerstone of our business.

However, the Government's attempts to cement such protection in legislation is flawed.

Submissions on the Marine Protected Areas Act consultation document closed in mid-March, with just about all interested parties agreeing the Government is not going about extending marine protection in the right way.

Environmental groups – Forest & Bird, Environmental Defence Society, World Wildlife Fund, Pew – are particularly critical of the government's decision to ignore marine protection in the Exclusive Economic Zone (EEZ).

How can you protect marine biodiversity if the vast area from the 12-mile territorial sea boundary to the 200-mile extent of New Zealand waters is excluded, they ask.

Many in the seafood sector are asking a similar question, and why the Benthic Protection Areas, initiated by the fishing industry and recognised by statute, that protect 29 percent of the EEZ were not given due weight.

The seafood industry is asking for a further round of engagement following the submissions cut-off prior to the drafting of the bill.

A summary of industry concerns, drawing on the submission from the New Zealand Rock Lobster Council, the Paua Industry Council and Fisheries Inshore New Zealand is contained in this issue.

Bill Mansfield, a New Zealander with a long record of working to protect the oceans, gives his overview of the development of our EEZ.

New Zealand is a world leader in sustainable fishing practices. This couldn't be achieved without sound science. Our cover feature details NIWA's valuable work in ensuring we have sustainable fish stocks.

Achieving social licence is critical to the ongoing success of our industry. Our second annual Nielsen survey of industry reputation shows a large majority value the role the seafood industry plays in the economy.

And there's lots more, including a fisherman who captures his life at sea through painting and a recipe to enjoy just one of our many delicious seafood varieties.

Tim Pankhurst
Chief Executive

Celebrating 30 years of sustainable seafood

This year's seafood industry conference will have an impressive line-up of speakers and activities to mark the 30th anniversary of New Zealand's world-leading Quota Management System.

The one-day conference on Wednesday, August 31, at Wellington's Te Papa Tongarewa will be the industry's chance to celebrate 30 years of sustainable seafood and look forward to what's ahead for the next 30 years.

Two high profile keynote speakers of international standing will be addressing the conference, Professor Ray Hilborn of the School of Aquatic and Fishery Sciences at the University of Washington specialises in resource management and conservation and John Connelly, the President of the National Fisheries Institute (NFI).

Hilborn is the co-author of several books including *Overfishing: what everyone needs to know* (with Ulrike Hilborn) in 2012, *Quantitative Fisheries Stock Assessment* (with Carl Waters) in 1992, and *The Ecological Detective: confronting models with data* (with Marc Mangel) in 1997 and has published over 200 peer reviewed articles. He has received the Volvo Environmental Prize, the American Fisheries Societies Award of Excellence, the Ecological Society of America's Sustainability Science Award and the American Institute of Fisheries Research Biologists Outstanding Achievement Award.

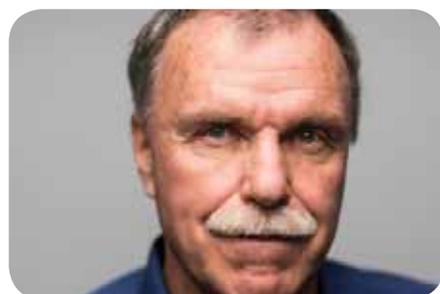
John Connelly, who is an advocate for seafood on the world stage, became the President of the National Fisheries Institute in 2003. NFI is America's leading trade association advocating for the fish and seafood community, representing the fish and seafood commerce chain — from "water to table." NFI lobbies Congress and regulatory agencies, serves as the seafood community's spokesperson with the media, and provides technical advice to its members.

He served as Chairman of International Coalition of Fisheries Associations and works with the World Bank on enhancing seafood supplies from developing nations. Connelly serves on the Board of Trustees for the Marine Stewardship Council, the global leader dedicated to promoting sustainable seafood choices. He also serves on the Board of Directors of the International Seafood Sustainability Foundation, a global group designed to help ensure the continued sustainability of tuna stocks.

Registrations open in May. Keep checking our website www.seafood.org.nz for more information. 🌐



New Zealand fisheries among the world's top five



Professor Ray Hilborn

New Zealand ranks among the world's top five best managed fisheries, Professor Ray Hilborn from the University of Washington said on a visit to New Zealand in February.

Hilborn, a Professor in the School of Aquatic and Fishery Sciences specialises in resource management and conservation and has been visiting New Zealand in a professional capacity since the early 1990s.

While his latest visit was a private one, he took the time to meet local academic colleagues and scientists while he was here. He also appeared on National Radio's Nine to Noon programme.

In a brief interview for this magazine, he praised New Zealand's Quota

Management System, and referred to a global study he participated in that looked at 28 of the largest fishing countries around the world. The results, presented at the Seafood Summit 2016, showed that New Zealand came in among the top five countries with a score of nine out of 10.

Asked if there was room for improvement with the QMS, Hilborn said New Zealand was lacking a marine fishing recreational licence "that almost every other country in the world has".

"This enables you to get a better idea of what the recreational catch is."

You can see the interview with him on our website at: www.seafoodnewzealand.org.nz/media-centre/dr-ray-hilborn/ 🌐

The new fishing deckhand – change is the only constant

Alec Woods

All of us in the fishing industry are being affected by change and deckhands are no exception—so what's new for them? SeaCert is the key word here. In 2009, Maritime New Zealand (MNZ) realised that the existing qualifications and operational limits framework were outdated, confusing and difficult to administer and began a round of stakeholder consultations and a review of seafarer qualifications and operational limits.

SeaCert was the result and central to SeaCert is the measurement of competence – can you perform a given set of tasks at each certificate level and how do you demonstrate this? The Seafarer Training Record Book for Advanced Deckhand – Fishing (ADH-F) is the document which sets out the tasks you must be able to perform in order to gain, maintain and advance from ADH-F level.

This Training Record Book (or TRB) can be downloaded from the MNZ website at: <https://www.maritimenz.govt.nz/Publications-and-forms/Commercial-operations/Seafarer-licensing/Seafarer-training-record-book-advanced-deckhand-fishing.pdf> and must be completed before the candidate attends a course or sits the oral exam for ADH-F. And whose responsibility is this? You've guessed it – yours! You demonstrate as part of your regular work that you can competently perform each task in the TRB and your skipper or senior crew member signs you off.

The first question most deckhands ask is "Have I got enough seetime?" Under SeaCert rules you will need to have completed at least six months sea service in a deck capacity aboard fishing vessels of 12m or more while voyaging beyond enclosed water limits so you



Alec Woods

need to be completing a sea service record book as you build up seetime. All of your sea service must have been completed in the 10 years immediately before you apply for the certificate and you must have completed an approved Training Record Book while on board. The original version of this document needs to be presented to the training provider or MNZ-approved Maritime Examiner before you take the oral exam. If you want to gain your ADH-F certificate of proficiency you should download the ADH-F guide from the MNZ website at <https://www.maritimenz.govt.nz/Publications-and-forms/Commercial-operations/Seafarer-licensing/Advanced-Deckhand-Fishing-ADH-F.pdf> Your new certificate will be valid for 5 years.

We started this article by talking about change and in the world of the fishing deckhand, there is now an "old world" and a "new world". If you got your ADHF before 30 April 2014 (or hold a QFDH), you are part of the "old world" – these are referred to as "old" or "legacy" certificates. Maritime NZ is considering its approach to transitioning these certificates and I'm told that in early April we can expect proposals for a rule change setting out options. There will be a period of public consultation – and that's an opportunity to have your say.

For those who have been working at sea and wish to move to ADH-F, this is

likely to be a relatively simple process involving attendance at an STCW-F Basic Safety course (7 days), providing a medical certificate and satisfactory evidence of competence in the small number of topics which have come into the syllabus since April 2014. Some of this learning can be done online, while parts such as firefighting will require you to attend a course.

Why have they gone and added more stuff, you might ask. Well, times have changed – and continue to do so. MNZ wanted New Zealand to have quality certificates which would demonstrate competency and knowledge and which reflected changes in health and safety legislation and international environmental concerns. Fishermen have asked for years why their tickets were not internationally recognised and this has now been addressed by additions to the ADH-F syllabus and the requirement to complete STCW-F Basic Safety. New Zealand certificates are now STCW-compliant and align with STCW-F i.e. they will be STCW-F compliant once New Zealand ratifies the STCW-F Convention (a process which is currently underway).

Are we better off now than we were pre-SeaCert? Most of us find change annoying and time-wasting and are much happier just carrying on the way we always have done. But the fishing industry must change if it is to prosper in the future. We have a world-leading

fisheries management system in the QMS. Why should we also not have the best trained fishermen? New Zealand is a bio-diversity "hotspot". Not only are our fish stocks healthy or well on the way to recovery but these fish co-exist with a rich variety of seabirds and marine mammals. As fishermen, we need to be responsible custodians of our marine environment as well as being the beneficiaries.

The new ADH-F qualification gives us the opportunity to demonstrate that we are the responsible fishermen that we say we are. Care of the catch has never been part of ADH-F syllabus until now. This is surprising since the QMS effectively limits what we are able to catch. Greater care of the catch and a better quality product is the best way to ensure a higher return to the vessel. Alignment to STCW-F makes the ADH-F ticket a portable qualification which is recognised internationally. Most importantly, the Training Record Book puts the responsibility for getting ahead into the hands of the person who is going to benefit the most – the deckhand.

Alec Woods is a Nelson-based fisheries trainer and adviser with a background in national and international fisheries.

Maritime Training

New Zealand Certificate in Fishing Vessel Crewing (Level 3)

This programme contributes to graduates obtaining their Maritime New Zealand licence: Advanced Deckhand - Fishing

STCW Basic Safety Training (7 days)

Fire Prevention and Fire Fighting, Personal Safety and Social Responsibility, Personal Safety Techniques, Elementary First Aid, Seafarer Security Awareness

STCW Refresher Training also available



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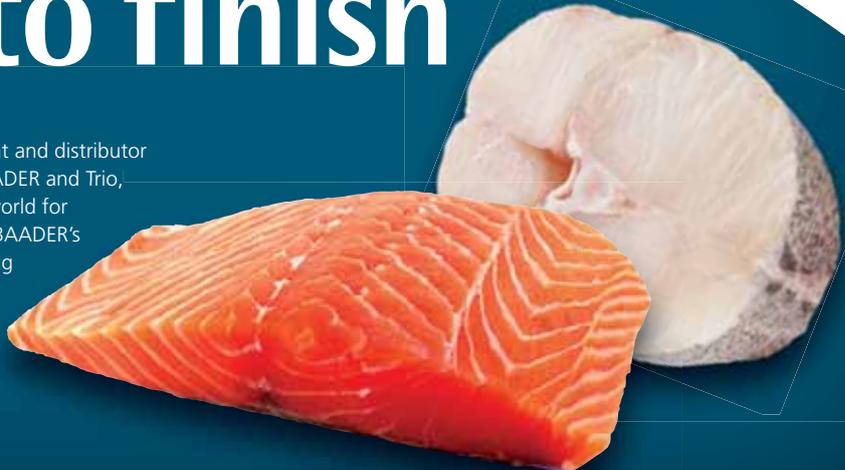


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Steps to support staff learning

Anna Cox, Primary ITO

How successfully a business organisation navigates its way through this age of business volatility, uncertainty, complexity and ambiguity, almost certainly hinges on a well trained and prepared workforce that can cope with change.

Professor of Business Administration, Darden Graduate School of Business, Ed Hess, told *Inc. Magazine* recently that in today's business environment... "relentless improvement is key and that requires learning.

"I believe that over the next five years, learning will become the only sustainable competitive advantage for most businesses. Learning will not be optional. Businesses will either learn or die. Period," he wrote.

The need to support staff learning is particularly desirable in the primary and manufacturing sectors in New Zealand, where the annual people cost may often be on a par with investment in plant and machinery repair and maintenance.

The ability to predict the future and set in place a plan that will take the organisation forward to its desired outcome in today's volatile environment is a challenge. Just as important is investing in the organisation's staff – the people who will need to take that volatility in their stride and execute the plan.

Steps to supporting an employee learning process

1. Align training with the strategic plan:

Once the company understands its strategic direction, it can begin thinking about what capability it will need to achieve its goals. This includes thinking about your staff as they are now, as well as what their potential may be (everybody has potential for something), and what needs to be done to achieve that potential.

Create a plan of activity, budget for that activity (big or small) and put meaning around the learning initiative for the people involved. Let your people know why you need them doing this training and what's in it for them. Link any learning, development or training opportunity to what that business unit is measured on – this will help motivate them.

2. Put in place a re-entry programme

One of the challenges with the seafood industry is the potential gap between training and applying that training on the job, particularly for those who may only work seasonally.

One solution is to apply re-entry theory to complement the training. When the person is back in his or her role have a coach or mentor work with them at implementing what they learned.

3. Use Standard Operating Procedures to introduce new skills

Finding ways to incorporate training into everyday operations is always a challenge.

Make a commitment to incorporating that training into the everyday job, and then assign a supervisor within the team to lead the implementation of those new skills.

Make it part of their everyday job by building it into your standard operating procedures (SOPs), which your supervisor can check on a daily basis.

It's more important now than ever before, to have a multi-skilled workforce that is adaptable, applies what they have learned and makes that learning a part of everyday routine. 🚚

Industry cooperation averts Chathams diesel drought

A potentially disastrous diesel drought on the Chatham Islands has been averted through a cooperative effort by transport industry operators and Maritime New Zealand.

Diesel supplies were delayed when the cargo vessel *Southern Tiare* lost power off Banks Peninsula in early March and had to be towed to Lyttelton.

Given the likely timeframe for repairs, a replacement vessel, Coastal Bulk Shipping's *Anatoki*, was called into

service, but it required a combined industry effort to make the delivery happen, Coastal Bulk Shipping general manager Doug Smith said

"It's been a great cooperative effort, from Pacifica Shipping moving the empty containers from Auckland to Lyttelton, Hilton Haulage then moving them to Timaru and providing space in their yard to load them, Stark Brothers in Lyttelton assisting with a couple of their ISO tanks and providing air pumps and hoses, Timaru Container Terminal working with us to receive the containers and load them, and Maritime NZ providing an exemption for the *Anatoki* to carry diesel.

"It restores the faith a little bit that we are working in an industry that can all paddle in the same direction when required," he said.

Maritime NZ General Manager Maritime Standards Sharyn Forsyth said safety remained the priority when considering the exemption.

"This was issued to the *Anatoki* only after Maritime NZ was satisfied that this voyage, with this cargo, could be completed safely," she said.

Safety was also the focus when a change in the loading plan was approved.

It was originally proposed to carry the containers stowed fore and aft but advice from Hilton Haulage and SGS Timaru was that the simplest way to discharge the containers was via a hose through a port on the top side. This allowed the containers to be stowed athwartships – the safest option. 🚢

Coastal Bulk Shipping's vessel *Anatoki* is loaded in Timaru with diesel containers destined for the Chatham Islands. **Image** Coastal Bulk Shipping.

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New Health and Safety at Work Act takes effect

The new Health and Safety at Work Act (HSWA) that came into force on April 4 means there is now one system for managing workplace health and safety across the whole of New Zealand, says Maritime New Zealand General Manager of Maritime Standards, Sharyn Forsyth.

The Act gives Maritime NZ responsibilities well beyond taking action when something goes wrong and will encourage closer relations between the fishing sector and Maritime NZ when it comes to health and safety at work, she says.

"As the regulator, we're responsible for helping operators understand how to meet their obligations under the new Act. We're training 35 Maritime NZ staff to become warranted health and safety inspectors. Initially these inspectors will be very much focused on helping operators to know what they need to do, not wielding a big compliance stick," says Forsyth.

"This is very much an 'assisted compliance' model."

The core objective under the HSWA remains the same – companies operating safely by identifying and managing risks to ensure everyone gets home from work unharmed.

Forsyth says that, unlike the majority of land-based workplaces, maritime operators need to approach a regulator (Maritime NZ) for permission to operate – so they already have to show they have a health and safety plan in place.

She recommends that fishing operators have one comprehensive health and safety management system that covers:

- HSWA requirements

- specific sector obligations such as the Maritime Operator Safety System (MOSS) and
- Accident Compensation Corporation (ACC) requirements (if they are part of an 'incentive' scheme).

"You don't need three different systems – develop one system that covers all of these requirements and meets your needs, and we will pick out the bits we want to assess."

"An operator's current health and safety management plan may not meet all the wider obligations under the new HSWA, but the maritime sector has a head-start with MOSS and the international and small domestic safety systems," Forsyth says.

"Nearly half the 1600 or so commercial maritime operators have been formally assessed under MOSS – and they will likely be well advanced in developing their safety systems compared to some other businesses."

Maritime Officers will align HSWA inspections with MOSS audits. Operators won't be charged extra for any time spent on HSWA.

The new Act makes important distinctions between workers, the business controlling the workplace and senior leaders.

The business in control of a workplace is known as a 'PCBU' – or the Person Conducting a Business or Undertaking. The PCBU is not necessarily a 'person'. Typically the PCBU is a business such as a maritime operator or port company. If the workplace is controlled by a self-employed person such as a vessel owner or by a government agency then they would be the PCBU.

Under the new law, senior leaders in the business, known as 'officers', must make sure that the PCBU meets health and safety requirements. An officer is usually a company director. In bigger enterprises officers are likely to be the chief executive and members of the

board. In the case of a small fishing operator, the PCBU and Officer may be the same person.

The new Act also requires that workers be provided opportunities to be involved in health and safety management and developing safety procedures and systems. Businesses must:

- engage with workers on health and safety matters and
- have effective, on-going ways for workers to participate in improving health and safety in their operation.

The requirement to engage with workers is broad and workers must have reasonable and on-going opportunities to improve health and safety.

"When workers actively engage and everyone in the workplace shares their knowledge and experience, better decisions are made and the workplace is healthier and safer," says Forsyth.

Workers views on health and safety must be taken into account. Suggestions don't have to be adopted but the business should explain when suggestions are not taken up.

How workers participate will vary depending on the type of operation and the people involved. The duty to engage extends to any worker who is directly affected by the operation even if they are not employees – for example a self-employed electrician working on a ship must also be included in health and safety matters. Maritime operators must communicate with all contractors and visitors about health and safety.

"The goal is to get an approach that works, rather than to impose any particular system," she says.

The Act and health and safety regulations set out requirements for health and safety representatives, work groups and health and safety committees.

Initial guidance on what is required under the new Act has been published on the Maritime New Zealand website. More guidance will follow by June 30. 📄



GET ON BOARD WITH THE NEW **HEALTH AND SAFETY AT WORK ACT**

The new Health and Safety at Work Act came into effect on 4 April 2016. Maritime New Zealand is helping maritime commercial fishing operators understand and meet the new requirements.

FOR MORE INFORMATION

www.maritimenz.govt.nz/hswa

for guidance on the new requirements and how they are being integrated with MOSS.



www.worksafe.govt.nz

for general information on the new Health and Safety at Work Act.



newzealand.govt.nz

Former skipper takes helm of Ngai Tahu Seafood



The new Chief Executive of Ngai Tahu Seafood, Joseph Thomas (Ngati Mutunga o Wharekauri, Te Ati Awa), is no stranger to the seafood industry.

Born and bred on the Chatham Islands, his whanau have been in the industry for many years.

Thomas began his working life as a crew member on board a rock lobster vessel; and then became skipper before heading away to Waikato University in 1988. He returned to the Chathams in 1991 to join the Chatham Islands Enterprise Trust where he spent 15 years as CEO. Most recently Joseph was the CEO of Development West Coast based in Greymouth.

“We are excited to have Joseph join the Ngai Tahu Seafood team. His knowledge of and experience in the industry – gained both in employment roles and as a director – will be a huge asset. This, coupled with his proven leadership ability and whanau connections to fishing, makes him a perfect fit with our values and our business,” says Ngai Tahu Seafood Chair, Craig Ellison.

“I am looking forward to working with him to continue the good work happening in our fishing company.”

Thomas holds a number of directorships: Chair, Ngati Mutunga o Wharekauri Asset Holding Company Ltd, Trustee, Ngati Mutunga o Wharekauri Iwi Trust, Deputy Chair, West Coast District Health Board, Director, Port Nicholson Fisheries General Partner Ltd and Koura Inc General Partner Ltd.

He was the 2000 Southern Regional and National NZIM/IBM New Zealand Young Executive of the Year and in 2002, the ICANZ Young Chartered Accountant for the upper South Island region.

He holds a Bachelor of Management Studies majoring in accounting and economics from the University of Waikato, is a Chartered Accountant and an Associate Fellow of the New Zealand Institute of Management Southern Inc.

His career has included roles as the CEO, Chatham Islands Enterprise Trust,

Senior Business Consultant at Polson Higgs, CEO, New Zealand Institute of Management Southern Inc.

Previous directorships have included Te Kawai Taumata, Economic Development Agencies of New Zealand, deputy chair and board member, The Canterbury Community Trust (ministerial appointment), member, Committee of Representatives for the review of the Māori Fisheries Settlement, Chair, Chatham Islands Airport Ltd and Chatham Islands Ports Ltd, Director: Chatham Islands Forestry Ltd, Chatham Islands Management Ltd and Chatham Islands Quota Holdings Ltd. 🌐



Tiaki caught fish coming soon to Auckland

Tiaki caught fish will be available in limited quantities in Auckland later this year.

Consumers will also be able to trace the fish using a traceability app, which will allow them to see where their fish came from and how it was caught.

Precision Seafood Harvesting, the revolutionary method of bringing live, premium fish aboard was branded Tiaki – meaning care or protection – at an unveiling in Auckland on February 24.

Tiaki is the latest stage in the six-year Primary Growth Partnership programme between the Ministry for

Primary Industries and three commercial fishing companies—Sanford, Sealord and Aotearoa Fisheries. The programme costing \$48 million, was launched in 2012, and is a 50:50 partnership between Government and industry.

Fish caught using this method is tipped to be a big earner and marks a move by the three companies involved towards value over volume.

Sealord CEO Steve Yung says capitalising on the demand domestically and worldwide for premium seafood is important for industry.

“The bulk of New Zealand’s fish is exported so export is the lifeblood of industry here.

“The quality of the Tiaki caught fish is really going to give us the opportunity to set New Zealand apart from the rest of the world and give us a competitive advantage, particularly in the markets of Asia.”

Fishing the Tiaki way replaces traditional trawl nets with modular harvesting systems, in which fish are brought on board alive, swimming in water and in pristine condition.

The technology was developed by a team of 14 scientists, led by Alistair Jerrett, at crown research institute Plant & Food Research.

The team’s overall objective is improved survivability rates for unintended catch.

“The best case scenario is always release at depth, that juveniles are not even brought on board. But equally important is increasing survivability rates for those that are.” Jerrett says.

When used to harvest deepwater species such as alfonso or hoki, the new technology is reducing the damage to the fish, increasing the quality and adding significant value to the catch. ➔

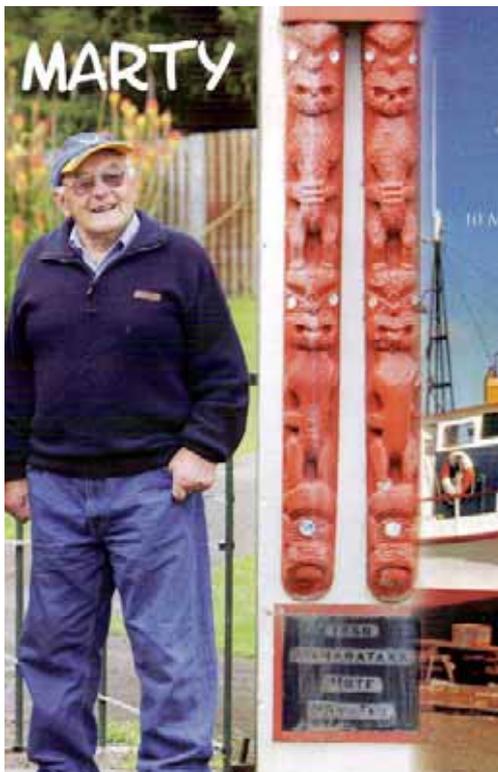


Top and above: Tiaki caught trevally and snapper: Tiaki fishing uses a modular harvesting system that brings the fish, on-board alive and in pristine condition.



TIAKI

Tiaki logo: The name for the new brand, Tiaki, is a Maori word meaning to care and protect.



Marty Tairaoa, who had officially retired from fishing, but continued to fish up until his death at 81 years of age on the West Coast in February.

Images Courtesy of Tairaoa and Hansen families.



Jim Hansen, who served 12 years with the Royal New Zealand Navy, rising to the rank of Petty Officer.

Experienced seamen lost at sea off Fiordland

By Rob Tipa

Two southern fishermen who lost their lives when their fishing boat was wrecked near Breaksea Sound in February were very experienced seamen who knew the Fiordland coast well.

Teone Te Matenga (Marty) Tairaoa (81) and James (Jim) David Hansen (63) were old friends on a circumnavigation of the South Island after tuna fishing off the West Coast when the *MV Marina* was wrecked on Breaksea Island on their return to Dunedin.

The pair left Otago Harbour on January 12, calling in to Akaroa and Port Underwood on their trip up the east coast of the South Island. When the boat developed mechanical problems, they diverted to Picton where they were delayed for two to three weeks while the gearbox was rebuilt.

They called into Nelson to refuel before heading for tuna fishing grounds off Westport, but had little success. They called into Westport for a week to dodge a weather system and then made their way down the West Coast to Anita Bay, near Milford Sound.

The pair checked in with Bluff Fishermen's Radio from Anita Bay before continuing south around the Fiordland coast.

"It's too early to speculate what happened but the weather was foul, visibility was horrible," Marty Tairaoa's son Teone, a fisherman from Otakou, said. "They were in the wrong place at the wrong time."

"The entrance to that particular shore off Breaksea is very rugged with tall cliffs, boulders and huge seas," he said. "It bares the brunt of the weather off the Tasman."

Crayfishermen Ian Stewart, on *Asti Kay* from Bluff, and Spud Robson, on *Impulse II*, from Jacksons Bay spotted the wreck of the *Marina* on

Breaksea Island and found the bodies of the two men reasonably quickly, about an hour apart.

Tairaoa, a respected elder of the Otakou community on Otago Peninsula, started fishing with his father Wiwi Tairaoa in the 1960s and later joined Otakou Fisheries, a company established by his father and uncle Rani Ellison in the 1940s.

Teone said his father spent most of his life crayfishing on the West Coast and was often at sea for up to seven months at a time.

In 1962 his father and his crew survived the loss of the fishing vessel *Rakoa*, which sank under them in Nancy Sound.

"It was before I was born," he said, "but I remember him telling me he went down below to get some meat out of the freezer and there was no water in the boat. By the time he found a couple of packets of sausages, the water was up over his knees."

The boat sank so fast they only had time to grab a shotgun, launch the dinghy and jump in before it was gone. They were rescued by a boat from Nelson and taken to Milford Sound.

"He arrived out of the blue the night before his brother's wedding and all he had was his thigh gumboots. All his clothes were on the boat."

Teone said his father had a healthy respect for the sea and knew the Fiordland coast well.

"He wasn't a fool at sea, but he wasn't scared of it either, because if you get scared and panic you make mistakes," he said.

"We tried to get him to give up fishing but we pretty much couldn't keep him away from it. The more you tried to stop him, the more determined he was to do his own thing."

“ We tried to get him to give up fishing but we pretty much couldn't keep him away from it. The more you tried to stop him, the more determined he was to do his own thing. ”

“He loved the life, loved Fiordland and living on boats.”

Mr Hansen joined the Royal New Zealand Navy in 1968 and was a very experienced navigator and seaman, rising to the rank of Petty Officer during 12 years of service.

He travelled all over the Pacific and was a witness on a New Zealand frigate to French nuclear tests at Mururoa Atoll.

Mr Hansen's wife Tonia said her husband was very safety conscious around the sea and had made pages of safety checks on the *MV Marina* before their voyage.

“He took no risks,” she said. He was a keen fisherman in both fresh or salt water, tied his own trout flies and was looking forward to tuna fishing on the West Coast.

“His plan was to return to Christchurch. He had been in Dunedin for several years to look after his parents. He was hoping to make some reasonable money and buy a home in Christchurch for his family.”

“He was a good man who loved his family and would do anything for them,” she said. 🐟



Three generations of the Tairaoa Family heading out to sea with Marty (centre).

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Logo Shipwreck Trust.

Fishing community helping bereaved fishing families

Debbie Hannan

Every year families of fishers who have lost their lives at sea benefit from the generosity of those who participate in an auction in aid of the New Zealand Shipwreck Welfare Trust at the New Zealand Federation of Commercial Fishermen's annual conference.

Dave McIntosh, Roger Beattie and Jeanette Ansley regularly give items for sale at the auction.

Ansley's exquisitely and intricately crafted quilts have been commanding big prices since she first contributed a quilt to the auction 10 years ago, raising well over \$10,000 during that time. One



Roger Beattie with a blue pearl.

quilt raised \$1600.

She and her husband John from New Plymouth are retired from fishing but still regularly attend the Federation's conferences. They remain quota holders and their son Robert has taken over the fishing.

"Both John and I think this is one of the best charities to donate to and I am making something that I love making," she says.

Leigh commercial fisher Dave McIntosh says he can think of no better charity than the Shipwreck Society.

He has been making items for sale at the auction for about 26 years raising thousands of dollars for the society over that time.

Clever and creative with his hands, he has made a variety of objects over the years ranging from wooden tankards, a ship's lantern, a binnacle and compass, bread boards, pot stands and plastic fish picks.

He describes Seine Boat Sally (pictured) as his "master piece". Sally was returned and sold again raising

\$500. This year he's working on a wooden wishing well.

It can be difficult sometimes getting his works to conferences.

"One year I took a suitcase with goods and ended up buying back my own case!"

Roger Beattie spent 17 years on the sea diving and fishing, mostly at the Chathams.

He's now land-based and is Managing Director of Eyris Blue Pearls, a division of Sea Right Investments. He is also part owner of R&N Beattie Farming and is joint director of New Zealand Kelp with his wife Nicki. Having established his fishing and fisheries investment company on diving and sea urchin, Beattie has expanded Sea Rights Investments Ltd into quota management and aquaculture processing and export.

For the past 10 years he has gifted blue pearl jewellery for the auction.

"The sea can be a dangerous place, but has been good to me. This is a small way I can help those who, through no



Dave McIntosh



Seine Boat Sally raised \$500.



Jeanette Ansley at work on this year's quilt.

fault of their own, are put in a terrible position," he says.

The auctions have attracted all sorts of items over the years, from a lifesaver peppermint and an ice shovel brought to the auction year after year, gaining progressively higher amounts. Bidding is spirited with lots of banter.

The serious issue behind the light hearted fun of the auctions became a reality for one fishing family as noted in the Trust's official history, *For those in Peril on the Sea*:

" One fisherman's widow from Castlepoint wrote to the Society after receiving help, that she and her husband had attended the annual fishermen's conferences—'(we) enjoyed the fun of fund raising (but it) never crossed my mind I would be a recipient.. It is not until you are in this situation that you realise how much red tape there is and how long it takes to sort out. The uncertainty of not knowing what and when is a real worry.' She had at first declined any assistance but was persuaded to accept it to help her son who took over the boat concerned."

Hundreds helped by Shipwreck Trust

Previously known as the Shipwreck Relief Society, the Trust was founded in Dunedin in 1902 by the Mayor James Park who wanted to move from individual appeals to a permanent shipwreck fund.

He could not have foreseen that more than a century later the fund he established continues to help families of those lost at sea across the country.

The name changed in the late 1990s to the New Zealand Shipwreck Welfare Trust to meet the modern needs of a charitable fund under the conditions of the Charities Commission. The Trust is run by eight trustees, all with a connection to the sea. Some are commercial fishers.

Tragically, life at sea can be as dangerous as it was 100 years ago. Over the past decade around 20 families have received \$800 a month for nine months from the Trust.

"The families appreciate this support and it is often unexpected. It comes at a time of grief and stress," says the

managing trustee Bruce Collins.

The trust provides financial assistance for initiatives to promote safety at sea. It provided 113 light weight life jackets to West Coast fishers in response to the loss of the Lady Anna in 2013.

The Trust has strict criteria to meet. It does not make payments to families of recreational fishers.

The Trust would struggle without the New Zealand Federation of Commercial Fishermen, says Collins. Over the past 10 years it has given over \$160,000 to the Trust.

Other donations come from port companies and fishing companies, but the bulk of the donations come from the Federation.

Anyone wanting to make a donation to the Trust can do so through:

The New Zealand Shipwreck Welfare Trust

PO Box 92
Dunedin 9054. 📍



Bill Mansfield

The Law of the Sea Convention is often taken for granted today. Younger people especially, seem to have the impression the 200 nautical miles Exclusive Economic Zone (EEZ), for example, has been part of international law more or less forever. Nothing could be further from the truth.

Until mid-last century, the international law of the sea was based on the concept of freedom of the high seas beyond a narrow territorial sea of about the length of a cannon shot. But by then many coastal states saw this 300-year-old concept as enabling a few countries with large naval and fishing fleets to exploit fisheries and other resources at great distances from their own shores and close to the coasts of other countries. Many coastal states responded by claiming wider areas of sea under their sovereignty. A patchwork of claims emerged. These were not recognised by the maritime powers and conflicts or the threat of conflicts increased dramatically, for example, the United Kingdom/Iceland cod wars

In the first two attempts by the United Nations (UN) to deal with this unstable situation in the 1958 and 1960 Conferences on the Law of the Sea, a proposal giving preferential fishing rights to coastal states out to 12 miles failed to be adopted by one vote.

Early in the first session of the UN's third Conference on the Law of the Sea in 1974, New Zealand, along with other coastal states—Canada, Chile, Iceland, India, Mauritius, Mexico and

The importance and impact of the Law of the Sea

Norway—tabled an influential paper that incorporated the concept of an EEZ. But that concept remained highly contentious and the rights and obligations within this new zone took most of the next decade to finally settle.

Even more importantly for New Zealand and the Pacific islands there was fundamental disagreement on the question whether small islands could generate a 200 miles EEZ in the same way as continental land territory. For example, the position of the Organisation of African Unity was that maritime spaces for islands should be determined on the basis of their size, population and proximity to the principal territory of the state.

After nearly 10 years of negotiation the Convention was adopted in 1982. Looking back after more than 30 years the Convention can be seen as one of the major ongoing contributions to international peace and security accomplished last century.

The outcome for New Zealand could hardly have been better. In terms of resource rights the Convention not only allowed us to use the small islands to the north, east and south of the three main islands as base points for our EEZ, and thus double its size, but also enabled us successfully to claim rights over our continental shelf beyond 200 nautical miles.

But the Convention puts obligations on us as to how we manage this massively expanded area of jurisdiction and in particular preserves the rights of navigation and over flight of other states through this area. We too need those rights to get products to and from the other side of the world and need to remember that in respect of our EEZ and continental shelf we and other states have a mix of rights and responsibilities that are strictly governed

by the terms of the Convention.

The Convention has proved its worth. I doubt it could ever be replaced or reconstructed. And in considering future challenges it is critical that new measures should complement it and thereby strengthen its role as a linchpin in international peace and security and the benchmark against which the international community judges all claims and actions by states in relation to the oceans.

Current and future challenge include land based sources of pollution, the climate change implications for the health of the oceans and the fisheries food chain, biological resources on the seabed beyond national jurisdiction, seabird bycatch, appropriate marine protected areas, subsidies of ship-building and fuel costs and the working conditions of fishers.

Perhaps the most pressing is that fish stocks continue to decline worldwide. The causes are fairly well known and have been for a long time.

First, in relation to the lawful industry, Governments continue to find it difficult in the face of industry pressure to set and enforce catch limits that are consistent with scientific advice on the status of the relevant stocks.

In the case of stocks that in whole or part are managed by a regional fisheries management organisation an additional problem is that many require decisions to be taken by consensus. If consensus is the only basis for decision taking it has the effect of providing every member with a disguised veto and this can contribute to a failure to take the necessary tough decisions.

A second problem is illegal, unregulated and unreported (IUU) fishing – the unlawful industry. IUU fishing, which by some estimates may account for close to a third of the world's

“ Looking back after more than 30 years the Convention can be seen as one of the major ongoing contributions to international peace and security accomplished last century. ”

catch, is the scourge of the cooperative efforts of states to control the catches of their legitimate fishing companies. It threatens the underlying justification for the primacy of flag state control of vessels as well as the integrity of coastal state jurisdiction. It needs to be stopped and it can be stopped if Governments are serious about it.

On a more positive note two initiatives by New Zealand are recent reflections of the active role we played in the law of the sea negotiations and the arguments we made then for proper control of high seas fisheries and for expanded coastal state jurisdiction.

The first is one we began with Australia and Chile nine years ago to establish the South Pacific Regional Fisheries Management Organisation (RFMO). This new RFMO fills a major gap in the coverage of RFMOs. It is headquartered in Wellington. It is now in its third year of operation and its importance will grow as fishing pressure from the north increases. A key feature is its decision-making procedures. They provide that, if all efforts at consensus have been exhausted, substantive decisions can be taken by qualified majority. This rule is coupled with a unique and careful limited objection procedure governed by strict time limits designed to ensure a clear and effective result is produced within the relevant fishing year.

The possibility of voting as a last resort changes the negotiating dynamics and increases the pressures to achieve consensus. The possibility of a vote was an important element in the background to the Commission's consensus decision at its last meeting to place two vessels on the SPRFMO's IUU list.

The second initiative is the Government's recently announced intention to create a fully protected ocean sanctuary encompassing the EEZ around the Kermadec Islands.

It was expected that, as part of their management regimes, RFMOs would establish refuges to allow for effective spawning and rebuilding of stocks, in cooperation where appropriate with relevant coastal states. But for the most part they have failed to live up to that



expectation. In the face of that failure, and in the light of ongoing world-wide over fishing, countries like New Zealand that benefitted most from the expansion of coastal state jurisdiction under UNCLOS have been encouraged to take a lead and create some large areas as fisheries refuges within their EEZs.

The New Zealand Government's decision has multi-party support and demonstrates the concern of New Zealanders about the state of the oceans. It is a significant contribution to

the international community towards the long-term survival of important marine resources. And it is fully in accord with the fundamental argument advanced by us forty years ago in support of the EEZ concept that, in the long run, coastal states are more likely than distant water states to manage coastal fisheries resources in a sustainable way.

Footnote:

This article by Bill Mansfield is an abridged version of his presentation on the importance and impact of UNCLOS to a New Zealand Institute of International Affairs seminar on New Zealand and the UN held to mark the 70th anniversary of the UN and the contributions of three former New Zealand diplomats, one of whom (Malcolm Templeton) led the New Zealand delegation to the UNCLOS negotiations.

Mansfield was the first Chair of the South Pacific Regional Fisheries Management Organisation and chaired the international negotiations that led to its establishment. He served as Counsel for New Zealand in the Southern Bluefin Tuna case and for a five year term as a member of the UN International Law Commission. Prior to these roles he held senior positions in New Zealand's public service, including as Director-General of the Department of Conservation, Deputy Secretary of the Department of Justice, and Head of the Legal Division of the Ministry of Foreign Affairs and Trade. He was a member of the New Zealand delegation to all negotiating sessions of the UN Conference that developed the UNCLOS. He currently chairs the Southern Seabird Solutions Trust. 🌍

Above center: The New Zealand Exclusive Economic Zone. **Image** NIWA.

Marine protected areas: managing risks or drawing lines on maps?

Nici Gibbs

From our kitchen window I look out to Taputeranga Marine Reserve on Wellington's south coast. To the west lies the reserve and, in the other direction, a thicket of recreational lobster pots, set nets, small fishing boats and dive flags marks the reserve's eastern boundary. The Government's recent proposals for a new Marine Protected Areas (MPA) Act have led me to contemplate whether the marine reserve has helped or harmed marine biodiversity on the south coast.

Back in the 1990s, the coast supported a healthy, thriving fishery. My brother would dive out the back of Taputeranga Island, always bringing home a decent feed of crayfish or paua. After the reserve was established in 2008, all recreational fishing was displaced beyond the reserve boundaries, together with commercial fishing for rock lobster and finfish. Most of the accessible coastline now lies within the reserve, so recreational fishing pressure is concentrated on just a few remaining reefs. On calm weekends, these nearshore reefs are dense with divers, boats and pots. As a result, paua, rock lobster and finfish are increasingly scarce beyond the edge of the reserve.

Meanwhile, inside the reserve, paua and lobster are more abundant, as you would expect, but finfish are not particularly plentiful. The distinctive and impressive seaweed biodiversity remains at risk from stormwater drains which discharge sediment-laden water into the bays whenever it rains. Last time I dived in the reserve I noticed the invasive seaweed *Undaria* gaining a foothold. As far as I know, no 'before and after' monitoring has been undertaken to assess whether the marine reserve has improved the overall health of the

south coast marine environment. But from what I've seen, the reserve has contributed to a net loss of ecosystem quality. Outside the reserve, biodiversity values have declined as a result of displaced fishing effort, and inside the boundaries the main threats to biodiversity are not being actively managed.

These, and similar observations made by seafood industry members around the country, have informed the combined response by the NZ Rock Lobster Industry Council, the Paua Industry Council and Fisheries Inshore New Zealand to the Government's proposed MPA Act. The submission urges government to adopt an integrated, risk-based approach to marine biodiversity protection, which recognises that MPAs are not always the best way of protecting marine biodiversity.

This risk-based approach comprises three logical steps. The first is to identify specific biodiversity protection objectives. For example, on Wellington's south coast seaweeds are unusually diverse (there are around 400 recorded species) and are critical to the marine ecosystem – so the objective might be to protect the integrity of seaweed habitats. The second step is to identify specific threats to achieving the objective – in this case, terrestrial runoff, stormwater discharges and invasive species. The third step is to identify how the threats can be effectively managed at the least cost – for example, coastal discharges can be cleaned up under the Resource Management Act and *Undaria* can be removed under a pest control programme.

Looking at Wellington's south coast under this risk-based lens, it's clear that a marine reserve in which all fishing is prohibited but no other risks are managed won't provide the most

effective protection.

The submission also emphasises the need to manage the adverse effects of fishing effort that is displaced from marine reserves or other MPAs. Around Taputeranga, displaced fishing has reduced the abundance of surrounding fisheries, particularly for sessile species such as paua and rock lobster. If displaced fishing effort isn't managed, it can eventually jeopardise fisheries sustainability. The submission recommends that when an MPA displaces fishing, the affected fisheries should be 'rebalanced' by cutting commercial catch limits (and adjusting recreational bag limits) to remove displaced catch and compensating quota owners for their losses.

Compensation is an essential element of the solution because it helps rebalance the economic incentives that underpin the effective operation of the quota management system. Environment Minister Nick Smith argues that compensation shouldn't be paid because MPAs are measures taken for the purpose of ensuring sustainability. That's wrong – if fishing is threatening the sustainability of marine biodiversity, then controls should be put in place under the Fisheries Act (after all, that's what it's designed for), not the MPA Act.

Marine biodiversity protection needs to complement and support New Zealand's successful fisheries management regime, rather than undermining it. The seafood industry is not the only sector with serious concerns – for instance, there is a broad consensus that recreational fishing parks have no place in an MPA Act. Building on the widespread discomfort with the Government's proposals, the industry is recommending a further opportunity for public engagement on a revised set of proposals before a Bill is introduced to Parliament. 🌊



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One fish, two fish: science and the QMS

What does it take to count all the fish in the sea? In the first of a series of articles marking the 30th anniversary of the Quota Management System, we reveal how the fishing industry, government and science work together on monitoring, assessing and predicting changes in New Zealand's key fisheries.

Hoki in the pound. Image Peter Marriott NIWA.





Fisheries scientist Owen Anderson. **Image** Dave Allen NIWA.



Snapper. **Image** Dave Allen NIWA.



Deploying the trawl. **Image** Peter Marriott NIWA.

Susan Pepperell, NIWA

Every year Owen Anderson and his team of scientists devote several months to counting fish.

At NIWA's Greta Point campus on the edge of Wellington Harbour, they crunch the numbers gathered on fishing vessels working throughout New Zealand's vast Exclusive Economic Zone to find out the fine detail about what's going on in our fisheries.

Their work contributes to one of the most crucial components of ensuring effective fisheries management—the need for accurate reporting of the amount of fish and invertebrates caught and discarded by the industry.

It is neither glamorous nor high profile, but it is a key component of an industry that earned about \$1.63 billion in export earnings last year. The statistical modelling and data analysis carried out by NIWA is vital to the ongoing sustainability of our fisheries.

New Zealand's comprehensive catch, effort and landings data for all commercial fisheries provide a rich source of information for fisheries management.

The system is largely based around a series of paper forms that track catches from fishing through to landing, and ultimately allow validation of the harvest returns that account for the use of quota.

Anderson and his team analyse the catch records that come in from fishing vessels and Ministry for Primary Industries (MPI) observers, who currently observe about 25 per cent of the tows. Each year they analyse one of the eight main deepwater fisheries: orange roughy, arrow squid, jack mackerel, southern blue whiting, oreo, ling longline, scampi, and most recently, the hoki, hake and ling trawl fishery.

Their aim is to use the observer data to estimate, for each main target fishery, what proportion of the catch is bycatch (species caught in association with the target species) or discards. Total bycatch and discards are then estimated for the fishery by scaling the ratios to total reported catch by tow across the fleet.

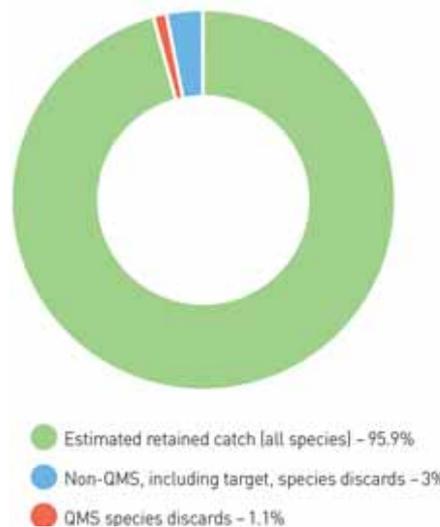
This is possible because the data they analyse record catches of the key species by each fishing "event", such as a trawl shot, along with details of depth, GPS position, time, and the type of gear used.

The analyses show that observed discard rates in deepwater fisheries are relatively low—for the most recent five years for each fishery analysed, they averaged about 4.1 per cent across the hoki, hake, ling, oreo, orange roughy, scampi, and squid fisheries combined (and were about 7% for fisheries analysed since 1991).

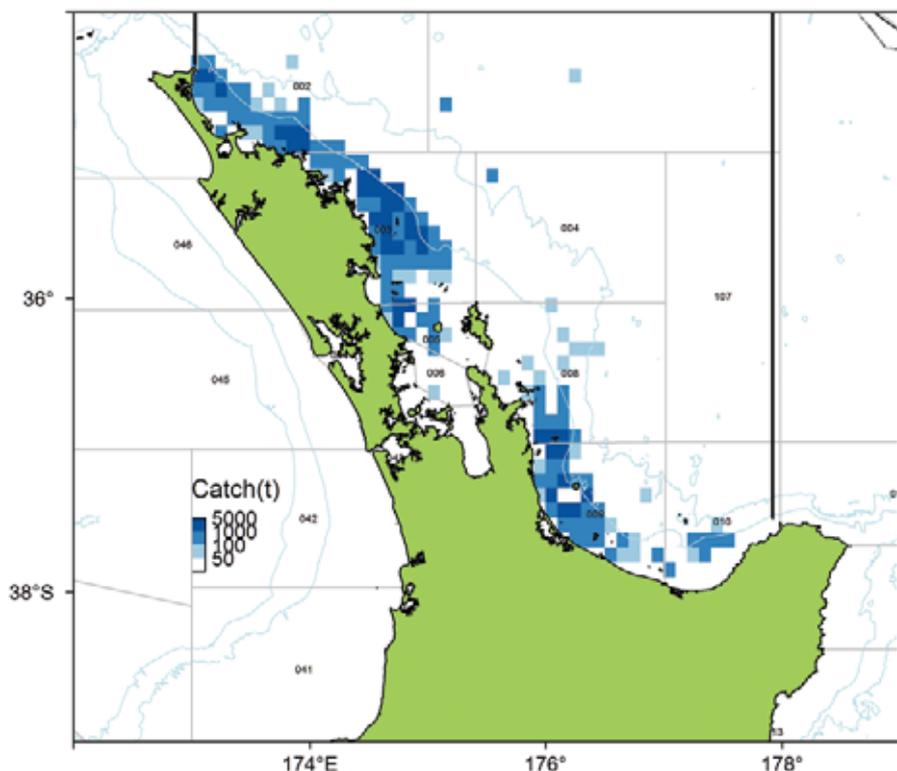
Meanwhile, catch recording in inshore fisheries has undergone a major revolution in the last decade with the introduction of fishing event reporting in 2007 for vessels 6-28m long—similar to what has been provided for deepwater fisheries for decades. NIWA Fisheries Chief Scientist, Dr Rosemary Hurst, says "the current fine scale catch reporting for most of New Zealand's fisheries is now amongst the best in the world.

Estimated observed discard rates for key deepwater fisheries

Last five years available data



“ The current fine scale catch reporting for most of New Zealand’s fisheries is now amongst the best in the world. ”



Fine scale reporting of the distribution of blue mackerel for the north east North Island purse seine fishery. Previously, catch data were available only for much larger statistical areas.



Rosemary Hurst. Image Dave Allen NIWA.

It enables us to get a much better understanding of the factors affecting fish distribution and abundance, as well as commercial catch rates and fishing patterns ”.

Previously, inshore catch data were available only for much larger statistical areas and before that only at the port of landing.

The independent verification of fishery data by the use of fisheries observers has proved invaluable in deepwater fisheries, but placing observers in inshore fisheries has been more challenging. But technology may be able to provide a solution.

In a number of inshore fisheries, new video technology is proving to be a useful alternative to human observers. Trident Systems’ FishEye systems have used innovative 360° cameras, developed by Nelson’s Snap Information Technologies, to capture panoramic images that provide shore based “observers” with at least as good a view of the fishing operations as an at-sea observer. In many cases the cameras can be placed to give a better view of the action than is possible from the deck.

Future demands for fisheries information will likely require validated data to be available rapidly, and see traceability extend to the seafood consumer. It’s likely that the focus of observer data (whether from humans or video systems) will shift to rapidly validating vessel data rather than providing a separate data source, so allowing fisheries managers to rely on a single, integrated source of information.





Boatramp interview. **Image** Helena Armiger NIWA.



Aerial boat surveys provide information on recreational fishing. **Image** Bruce Hartill NIWA.

Recreational fishing – estimating the catch

Recreational fishers are not required to report their catch, but knowing how many fish are caught is vital to the sustainable management of many inshore New Zealand fisheries.

About 600,000 people go fishing in New Zealand, including 40,000 to 50,000 hardy enthusiasts. That's a lot of people catching a lot of fish.

In order to provide robust estimates of recreational harvests for MPI, NIWA and other researchers have developed and tested a suite of survey methods. These include aerial surveys, concurrent boat ramp surveys and national face-to-face household surveys followed up by regular telephone interviews.

In 2011-12, NIWA, the National Research Bureau and Bluewater Marine Research conducted three independent surveys which were based on these fundamentally different methods. This included aerial surveys and boat ramp interviews on the northeastern coast of the North Island; a national household survey; and interviews with fishers returning to all landing points in the western Bay of Plenty. These three methods produced remarkably similar results. MPI plans to repeat the two larger surveys every 5 years.

Meanwhile, NIWA has also developed a cost-effective method of continuously monitoring trends for the intervening years, based on web cameras mounted at boat ramps to monitor boat traffic and interviews with fishers returning to the same ramps.

The cameras record about one image each minute, around the clock. Scientists then view the images collected during a random sample of days, and count the number of boats. These traffic counts are combined with interview based catch per trip data to estimate the harvest landed annually at each surveyed ramp. 🐟

Economic review

of the seafood industry - to December 2015

Welcome to the latest update on the economic performance of New Zealand seafood. This edition provides provisional data for the full year to December 2015.

KEY RESULTS FOR 2015:

- Seafood exports for the full year reached NZ\$1,629m.
- Exports to China grew by 15 percent compared with 2014.
- Exports of fish, crustaceans and molluscs have grown by six percent compared with the same period in 2014.
- Salmon exports have grown by 34 percent compared with the same time in 2014.
- Orange roughy exports have grown by 30 percent compared with the same time in 2014.
- Exports of rock lobster continue to grow, up 12 percent on 2014.



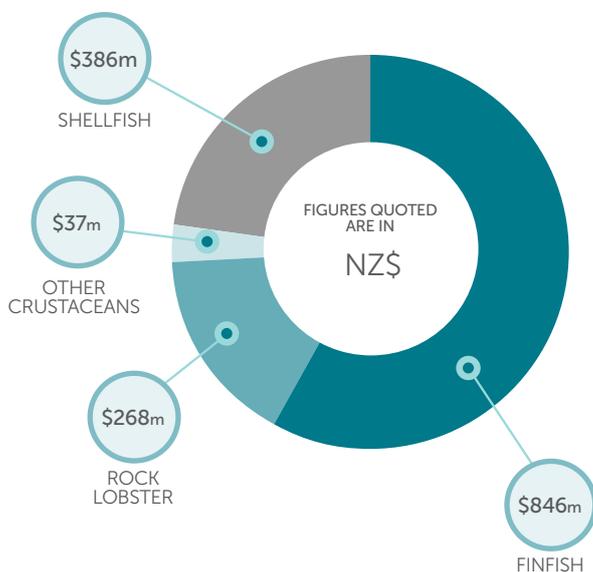
EXPORT STATISTICS

EXPORT NZ\$FOB*

All figures in this section are based on export data provided by Statistics New Zealand and analysed by Seafood New Zealand for the whole of 2015.

Seafood exports to the end of December 2015 totalled NZ\$1,629m with more than 289,911 tonnes exported.

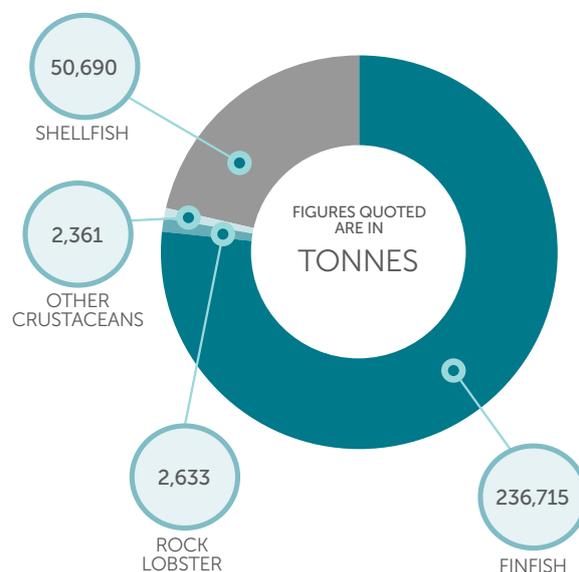
Export value (2015) = NZ\$1,629m



EXPORT TONNES

Finfish species accounted for 82 percent of export volume with shellfish accounting for 16 percent. Rock lobster and other crustacea make up a small proportion of export volume but contribute a significant percentage of the total export value.

Export volume (2015) = 289,911 tonnes



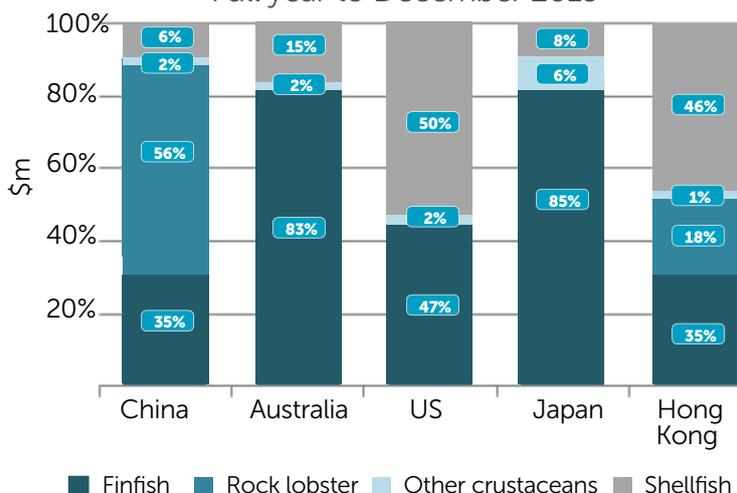
EXPORTS BY COUNTRY

China, Australia and the United States maintain the top three positions as our key seafood export partners. Exports to China continue to rise, up 15 percent on 2014. Australia have decreased slightly over 2014, down two percent.

The graph below shows diversity in the mix of products for the top five¹ export countries. Rock Lobster continues to be the leading product exported to China with Australia and Japan favouring finfish.



Composition of exports to Top 5 Trading Partners - Full year to December 2015



TOP 10 EXPORT VALUES (NZ\$)	2014	2015	% Change
1 China	\$449m	\$516m	▲ 15
2 Australia	\$228m	\$224m	▼ -2
3 United States	\$178m	\$200m	▲ 12
4 Japan	\$100m	\$104m	▲ 4
5 Hong Kong	\$68m	\$69m	▲ 1
6 South Korea	\$42m	\$47m	▲ 12
7 Spain	\$37m	\$42m	▲ 14
8 France	\$36m	\$33m	▼ 8
9 Germany	\$26m	\$29m	▲ 12
10 Thailand	\$35m	\$26m	▼ -26

EXPORTS BY SPECIES

There have been major increases in exports of orange roughy and salmon, up 30 percent and 34 percent respectively on 2014. Paua has also moved back into the top 10 export species. Mussel exports continue to fall, down 13 percent but are still above levels for 2013.

TOP 10 EXPORT VALUES (NZ\$)	2014	2015	% Change
Rock lobster	\$268m	\$305m	▲ 12
Mussels	\$253m	\$224m	▼ -13
Hoki	\$205m	\$209m	▲ 2
Jack mackerel	\$71m	\$64m	▼ -11
Orange roughy	\$37m	\$53m	▲ 30
Ling	\$48m	\$48m	0
Salmon	\$31m	\$47m	▲ 34
Squid	\$43m	\$41m	▼ -5
Paua	\$36m	\$39m	▲ 8
Crustaceans & molluscs	\$31m	\$37m	▲ 16

EXPORTS OF MAIN COMMODITIES

Exports of primary processed fish, crustaceans and molluscs totalled \$1,452m for 2015, an increase of six percent compared with the same period in 2014.

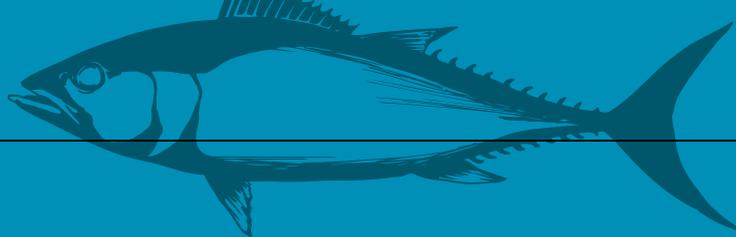
Overall there was a two percent decrease in the export earnings of all New Zealand's commodities.

NZ EXPORTS OF MAIN COMMODITIES (NZ\$)	2014	2015	% Change
Milk powder, butter & cheese	14,511m	11,525m	▼ -21
Meat & edible offal	5,930m	6,826m	▲ 15
Logs, wood & wood articles	3,668m	3,519m	▼ -4
Fruit	1,765m	2,304m	▲ 31
Mechanical machinery & equipment	1,610m	1,702m	▲ 6
Wine	1,351m	1,531m	▲ 14
Fish, crustaceans & molluscs	1,375m	1,452m	▲ 6
Total exports	50,075m	48,980	▼ -2

Source: Export data, Statistics NZ.

¹Based on 2015 year to date export figures from Statistics NZ.

Source: Overseas merchandise trade, December 2015, Statistics NZ.



From a life of fishing to fine art

Chris Carey

Getting an education was the farthest thing from Sean Garwood's mind; school was just somewhere to eat your lunch for the young West Australian.



Faith Hope and Pray: Sean Garwood.

"The Fremantle cray fishing industry was pretty much run by the mafia back then and I'd wag school and go out with the Italians on day trips to Garden Island, Rottnest Island and a place called 'The Traps'."

In 1978 a ship docked in Fremantle carrying the *Ikawai*, *Tengawai* and *Galatea*.

"They were massive; we thought they were super trawlers and it put the local industry into a spin. And who should be in Fremantle to deliver them to New Zealand but Johnny Gay, Vick Hornby and Brian Kenton. I met Johnny and he offered me a job."

Garwood's first taste of fishing in New Zealand was as a 15 year-old with Trevor Jackson on the *Waihola* chasing kahawai off Kapiti after which he signed on as Deckboy with Geoff Pont on the *Waipouri*. Coincidentally, Johnny Gay was waiting for the 34m freezer trawler *Otago Challenge* to arrive. She was purpose built for Wrightson NMA (later Fletcher Fishing Ltd) and that offer of a job was still there.

"I started as Deckboy then moved up to Deckhand when I got my ticket. We fished around Stewart Island,

Chasland's Mistake and Mason's Bay."

"Johnny was a scrawny looking guy but he'd been a professional boxer in his youth. Brian Hardcastle, another 'Yorkie' from Hull was relief Skipper and full of piss and wind. I remember him giving Johnny shit when we were berthing so Johnny puts his gloves on. Right he says! Well, Hardcastle was off! Johnny, he didn't say much just spoke with his fists if he had to. Oh man it was so funny watching the interaction between them."

June 1981 reports of foreign charter vessels (FCVs) catching orange roughy were doing the rounds so Fletcher Management sent the *Otago Challenge* to 'The Rise' to rendezvous with their FCVs; to an area now known as the 'Spawn Box'. Coincidentally, Glenn 'Shorty' Duggan on the *Fifeshire* was doing the very same to the west and while 'Shorty' is credited as the first Kiwi to land roughy, Dunedin fishermen disagree. Either way it is fair to say that the *Fifeshire* and *Otago Challenge* were the first NZ vessels to catch orange roughy in NZ waters.

Garwood believes the success of the *Otago Challenge* and the Russians was the catalyst for Fletchers to buy the 87m Hull trawlers *Otago Buccaneer* and *Otago Galliard*, arguably the biggest single investment in vessels by a New Zealand company at that time. In 1982 he joined the *Otago Galliard* as a supernumerary 3rd Mate skippered by 'Big' George Kent.

"'Big' George Kent was skipper, Trevor Burnett was relief skipper and Steve 'Jacko' Jackson 1st mate but Harry 'The Hug' Smith ran the show. I remember asking him when he wanted me to jump on the boat. 'That's no' a fookin' boat! It's a ship' and I thought I'm not arguing with you mate. He was huge."

"Those Pommie fishermen were old school working shifts of 18 hours on, six off. They'd stash their net mending knives under the brim of their 'Yorkie' caps and always had a fag hanging out their mouths, the end bouncing up and down as they talked. Baths, showers, what were they? They would smoke like chimneys and argue like you wouldn't believe, really going for it. 'Cum an' av' a cuppa' and all would be forgotten. And man, when they were on fish they absolutely murdered it! We filled her once in 21 days; 960 tonnes!"



Sean Garwood, seafarer.



Sean Garwood, painter.



The Otago Galliard.

In 1983 going's on elsewhere aroused his interest and Sean went prawning in the Gulf of Carpentaria which he described as an absolute waste of time; crews so drugged up they hadn't a clue what they were doing. Questioning why he went in the first place he arrived back in New Zealand and found work on Wattie's FCV factory trawler *Banshu Maru #8* but after a trip realised that it 'wasn't for him'. However the word on the street was Skeggs of Nelson had bought the 76m, 1534GT *Cordella*.

"I bumped into Brian Hardcastle and within a week I had tickets to Hull. The *Cordella* had just come off guard ship duties so she was painted bright red with Trinity House in white marked on her side. We arrived in Nelson in January 1985."

Garwood describes Hardcastle as a brilliant fisherman and ship handler and the following three years as 1st Mate the most informative and impressionable until the jungle drums began beating again; reports of orange roughly caught in the SW African hake fishery had Sean looking to the Western horizon. In April 1988 a joint venture partnership between New Fishing Australia and Pescanova of Spain using the vessels *Sil* and the *Ribadeo* was formed to explore off SW Africa (Namibia) and South Africa. Accepting the job as Fishing Master, Sean arrived in Walvis Bay, Namibia.

"We surveyed from Angola to Namibia but most bags were between 1000 to 1500kgs; the best was a mere 8-10 tonne."

The second part of the survey covered the waters off South Africa using the *Harvest Gardenia*, a 45m Spanish built wet fisher belonging to Sea Harvest; a company based Saldanha Bay north of Cape Town.

"We found a hill on the Valdivia Bank, part of the South Atlantic Ridge with quite a bit of roughly but it didn't last long; I think we got a couple of 15 tonne bags off it before it dried up. We surveyed around the Cape of Good Hope but it was just black dory; truckloads of it and because they had hake quota to catch the roughly side of things was put on hold."

Back in Fremantle, Sean hears of a Norwegian trawler berthed in Albany so he heads down to 'see what this was all about'. A partnership between Marine Resources Development of Melbourne and Longvatraal of Norway was formed to explore the Indian Ocean, Australian waters and the Tasman Sea area of the Challenger Plateau using the 57m *John Longva*.

"That's when I met Helge Longva and I was taken aback about with how nice and how professional they were. They listened to advice and I guess because of my experience I was offered the job of Mate/relieving Skipper alongside Egil Smenes."

The *John Longva* steamed westward to the Broken Ridge in the SE Indian Ocean.

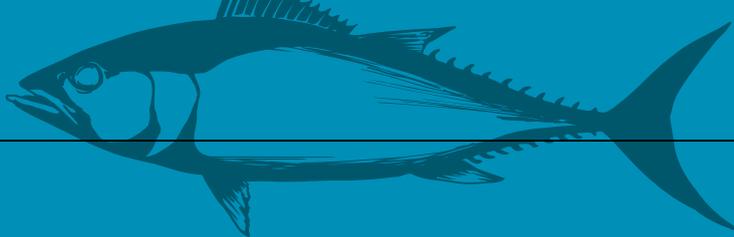
"We caught bugger all so came scurrying back. So where to next? A lot of money had been invested and they wanted results. It was May, the right time of year for the Westpac Bank and the NW Challenger and a pretty sure thing so off we went."

"We did very, very well. I believe we were the first to fish the NW Challenger; we opened that area up and we had the place to ourselves for ages. The 'Longva Tow' and 'Easy Street'; now that was a brilliant tow, the fish would come down in the afternoon and it was 'fill yer boots', that easy."

In May 1989 the *John Longva* called into Nelson for repairs caused quite a stir amongst New Zealand's fishing fraternity who were impressed with the quality of her build, level of technology, state-of-the-art factory but particularly the Brattvaag 1010 self-tensioning winch system.

"Kiwis were looking for ships and Norwegians were laying theirs up. I believe that visit was the catalyst that revolutionised New Zealand's deep water fishing industry, particularly the hoki fishery. When the *Ottar Birting* began 'cleaning up' on hoki north of the Mernoo Bank everything went ballistic. The rest as they say is history."

In 1993 Austral Fisheries bought the 87m factory trawler *Sea Harvest*. Renamed *Austral Leader* Sean accepted the Skippers job.



"I'd never seen such a disgusting vessel in my life! How were we going to fish this damned thing and why the hell did I leave the *John Longva*? Helge had said I was welcome back anytime and I had my bags packed ready to go."

Three trips later Garwood was back with Helge this time on the *Longva II* out of Lyttelton. Sean describes hoki fishing as 'fishing with a shopping list'.

"You pretty much know you're going to get it and where to get it before the trip starts. With roughy you had absolutely no idea how the trip was going to pan out. It was frustrating, exciting and so addictive."

"I loved my time with Brian Hardcastle. He gave me the freedom to make mistakes; you learned from them and he never ever went off his head. I really respected him for that. The South Africa thing was satisfying because you got the project done, but it wasn't exciting. Working with Helge and Egil and their absolute professionalism has had a lasting effect on me." 🐟

While the sea was in Garwood's blood, so too was painting.

Greatly influenced by his father's highly successful painting career, he spent many hours sketching Fremantle's rich maritime heritage and continuing to draw during his years at sea.

Garwood came ashore in 2004 to pursue a career as an artist and over the past 12 years has established a name for himself for his striking works capturing his love for the sea and ships.

As part of Antarctica New Zealand's artist programme, he visited Antarctica sketching and photographing the huts of Scott's and Shackleton's in preparation for a series of paintings. A sample of his works can be seen at www.seangarwood.co.nz 🐟

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Nici Wickes, who stars in the TV show *World Kitchen*, used Regal King Salmon from the Marlborough Sounds.

Image Richard Briggs, Marlborough wine and food festival 2016.

Top of the South showcases seafood riches

Marlborough seafood was centre stage at the Marlborough Wine and Food Festival in February, where everything from popcorn clams to just-shucked oysters were showcased to an audience of 8000.

Celebrity chefs whipped up divine dishes in the Culinary Pavilion, with Peta Mathias treating Greenshell mussels to the spices of a South Indian curry, and Michael Meredith, owner of degustation restaurant Meredith's, cooking with Cloudy Bay Clams.

Nici Wickes of *New Zealand Woman's Weekly* and TV's *World Kitchen*, used Regal King Salmon from the Marlborough Sounds in a smoked salmon bun, bound with a cucumber, dill and yoghurt-mayo dressing, along with a turmeric salmon dish. Meanwhile, Bradley Hornby, from Marlborough restaurant Arbour, treated taste buds to lemon cured salmon with smoked potatoes, crème fraiche, green apple and radish.

There was plenty of seafood to savour in the main field as well, including Diamond Shell Po'boy at the popular Clam Shack, and freshly shucked Kiwa Oysters, which won the the people's choice award in the wine and food match, married with Tohu 'Rewa' Blanc de Blanc 2013.

Marlborough woman Molly Wittig had three plates of the *Ostrea chilensis* oysters, which are farmed in the Marlborough Sounds. Her response was simple: "They were delish." 🍷



Nicola Mitchell tries a trio of freshly shucked Kiwa Oysters. **Image** Sophie Preece.



Celebrity chef Peta Mathias finishes off a South Indian mussel curry in the Culinary Pavilion at the Marlborough Wine and Food Festival. **Image** Sophie Preece.



Oyster shuckers Tipene Taylor-Love, left, and Robert Filipo worked hard to keep the wine festival punters happy. **Image** Sophie Preece.



Above: Mussels were the hero of the Havelock Mussel & Seafood Festival in late March, but they had plenty of sidekicks for support. Marlborough4Fun's Katrina Lange (centre) organises the event with a festival committee, including Simon Gibb (left) and Debbie Stone (right). She said mussels would always be at the heart of the event, which is in its 12th year, "but we also wanted to showcase other amazing seafood from the region". Salmon and oysters farmed in the Marlborough Sounds were on show in the culinary tent, along with wild Cloudy Bay Clams, scampi and other seafood. Celebrity chef Michael Van de Elzen paired fabulous dishes with stunning local wine and beer while the audience listened to headline act Anika Moe. A marvellous day for meaty molluscs.

Images Havelock Mussel & Seafood Festival.



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Grilled Mussels with Parmesan & Parsley

The Greenshell™ Mussel is a local delicacy that has been the star of the Havelock Mussel & Seafood Festival for the last 12 years. This delicious Italian-styled recipe, from The New Zealand Seafood Cookbook, does full justice to one of our favourite bivalves.

Cooking time: 35 mins

Ingredients

1kg medium Greenshell™ Mussels
100mls water or white wine
50g butter
50mls olive oil
2 tbsps flat leaf parsley, finely chopped
2 cloves garlic, finely chopped
Sea salt and ground pepper to taste
100g Parmesan cheese, finely grated

Photo credit: An image from The New Zealand Seafood Cookbook.

Text by Auckland Seafood School and contributing chefs; with food photography by Sean Shadbolt. Published by Penguin Group NZ. ©Auckland Seafood School, 2009.

Method

1. Preheat grill.
2. Place water or wine into a large pot and, with lid on, bring to a rapid boil.
3. Wash and clean mussels, removing beards.
4. Add mussels to boiling water and boil for 5 minutes or until the mussels open. Discard any mussels that do not open.
5. Place mussels onto a baking tray and allow to cool a little before removing and discarding top shells. Release each mussel from its shell, remove chewy mussel centres and place back into shell—this makes them easy to eat. Set to one side.
6. Melt butter in a saucepan and mix in oil, parsley, garlic, and seasoning.
7. Place a spoonful of the mixture over each mussel, sprinkle with parmesan and place under the grill for a couple of minutes.
8. Allow to cool before eating as they do tend to burn lips. A very tasty starter—best enjoyed with friends around the barbecue!

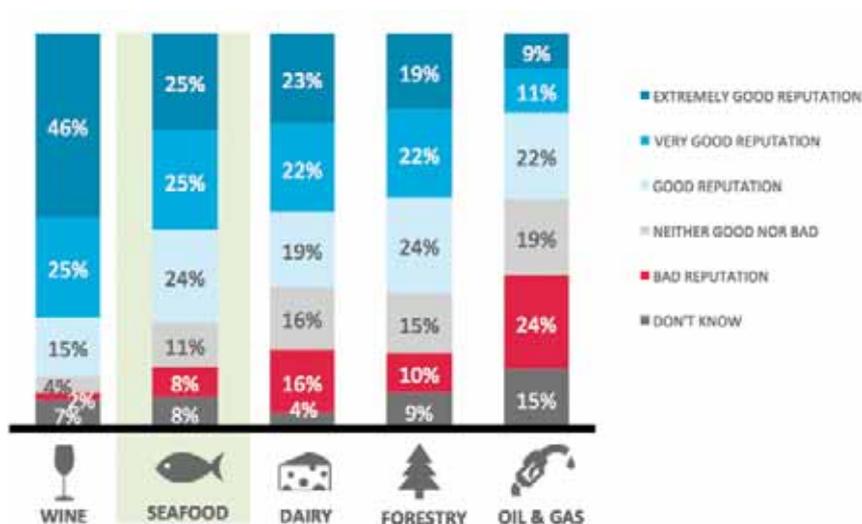
New Zealand seafood industry reputation ranks highly

Debbie Hannan

A large majority of New Zealanders value the role the seafood industry plays in the economy, with most people having good things to say about the industry, a survey released in February shows.

Seafood New Zealand first commissioned Nielsen, a research company, to conduct the survey in late 2014. A follow-up online survey with 1002 people late last year confirmed the previous year's results that 70 per cent of New Zealanders rate the seafood industry as "extremely" or "very" important to the economy and 74 per cent believe its reputation to be positive.

The seafood industry's reputation ranks second to wine when compared with other sectors.



"What is particularly pleasing is that twice as many people believe that the reputation of the seafood industry has improved over the past 12 months, than those that believe it has deteriorated," says Chief Executive Tim Pankhurst.

For the quarter of the respondents who feel the seafood industry's reputation has improved mentioned a perception of more positive reporting generally, a more sustainable focus and/or outlook and better legislation. Themes that came through more prominently in 2015 than in 2014 were improvements/developments in fishing methods and the quality/freshness of seafood.

"Achieving social licence and the right to operate is critical to the ongoing success of our industry, Pankhurst says.

"Industry takes this very seriously and in this past year there have been several good examples of industry responding to negative media in a clear and transparent manner, explaining

the facts for the public to make up its own mind. This all helps to maintain and build on public trust and confidence in us."

The survey shows that the strengths of the industry are that it provides New Zealand with access to fresh seafood and that it produces a high quality and healthy product.

Three out of four people have something good to say about the industry with four main unprompted themes:

- Fresh fish/water (12 per cent)
- Quality product (9 per cent)
- Sustainability (8 per cent)
- Produces jobs for New Zealand workers (7 per cent)

More than two thirds (77 per cent) believe the seafood industry produces healthy food, 70 per cent say it makes a significant contribution to the New Zealand economy 57 per cent say it makes a positive contribution to peoples' health and wellbeing and 47 per cent believes it harvests food in a sustainable way.

Sustainability

Perceptions around sustainability have improved slightly over the past year, with fewer people disagreeing that the industry harvests sustainably (17 per cent) compared with the previous year (21 per cent).

And asked for their perceptions around the industry's commitment to sustainable fishing practices only 13 per cent disagreed that industry works hard to ensure fish and shellfish resources are maintained compared with 16 per cent in 2014, and a previous industry survey in 2002 which showed 26 per cent disagreed that industry made every effort to ensure marine resources are maintained.

There was also an increase in those who understand that New Zealand has been twice ranked the most sustainably managed fishery in the world (18 per cent, compared with 14 per cent in 2014).

The Quota Management System (QMS) and fisheries legislation, genuine commitment and concern and research and better fishing methods reassure the public about sustainable fishing practices.

Knowledge of the QMS is high with close to two thirds

of respondents understanding that the New Zealand fishing industry is controlled by the QMS and more than half understanding that there is an annual catch entitlement under this system.

The themes emerging from the 17 per cent who disagreed that the industry harvests sustainably included dumping/waste, declining fish numbers and overfishing/exceeding quota. Damage to sea life and the environment by commercial fishers, including the impact of nets on dolphins and other sea life and bottom trawling were also concerns.

Sixty one percent believe the responsibility for sustainable fishing should be shared by commercial and recreational fishers – a similar result to the previous year (59 per cent).

Information sources

Asked where they sourced their information most said it came from traditional media.

	2014	2015
 TV	46%	39%
 Newspaper	24%	22%
 Radio	14%	14%
 Friends, family or work colleagues	14%	13%
 Online (website content)	9%	9%
 Online (blog, forum, social media)	6%	6%
 Magazine	5%	4%
 Brochure	3%	3%

The Ministry for Primary Industries, Department of Conservation and Seafood New Zealand were ranked as the three most credible sources of information.

The survey has provided rich information to better understand the public's perceptions of the seafood industry, says Pankhurst.

"While it shows most New Zealanders value the industry, it also shows us areas where we need to provide more information to dispel misperceptions.

"Fishing is a global industry. Poor fishing practices

elsewhere in the world can lead the public, particularly through ill-informed social media campaigns, to believe New Zealand is no different. We need to continue to tell our story and reassure all New Zealanders that our fisheries management system is one of the best in the world, ensuring our fisheries will remain healthy for generations to come." 🐟

Key facts at a glance

70% of New Zealanders rate the seafood industry as **"extremely"** or **"very important"** to the economy

74% believe the industry has a positive reputation

TWICE AS MANY PEOPLE believe the industry's reputation has improved over the past 12 months than those who believe it has deteriorated.

47% believe the industry harvests sustainably

61% believe the responsibility for sustainable fishing should be equally shared between commercial and recreational fishers

THE SEAFOOD INDUSTRY'S REPUTATION RANKS SECOND when compared to other primary industries within New Zealand, just behind wine and ahead of dairy.



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