

Seafood

NEW ZEALAND

**Best Fish Guide
p07**

**Maui Dolphin Numbers
increase p08**

**Cover Story: Seafood Innovation
funds research p15**



"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 97% 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.



To download Spark Undersea Cable Awareness Charts visit: boaties.co.nz/useful-info/cables-underwater.html

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**

Symbols Relating To Submarine Cables

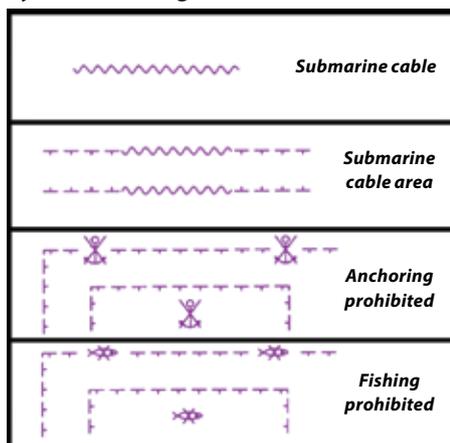


Figure 1.

These are some of the penalties

- A maximum fine of \$20,000 for a non-commercial vessel.
- A maximum fine of \$10,000
- A maximum fine of \$250,000 for damaging a submarine cable.

Additional to the fine for damage, the cable owners would inevitably pursue the recover of costs associated with repairs, this could be up to \$750,000 plus a day; a typical repair can take up to two weeks (around \$10 million).

Be Aware

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



For more detail refer to appropriate marine charts.

FEATURES

- 15 **Cover feature:** Seafood Innovation funds research
- 07 **Best Fish Guide**
- 08 **Maui Dolphin Numbers Increase**

OPINION

- 26 **Successful industry self-management in the Shetlands**
- 32 **Recreational versus commercial: Are we really so different?**

REGULARS

- 31 **Recipe:** Grilled tarakihi on hummus with salad
- 34 **Event:** 2016 Aquaculture Conference a success
- 28 **Nuts and bolts:** Mouteka net design combines efficiency with less environmental impact
- 38 **Salt of the ocean:** Sailing with pride under a New Zealand flag

Cover Image: Kevin Heasman and Mark Preece at Cawthron Aquaculture Park. Image: NIWA



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From the Chief Executive

The seafood industry has had a choppy year – and then along came a 7.8 magnitude earthquake.

The coastal uplift along a 50-kilometre stretch of the Kaikoura and Marlborough coasts is hard to believe.

The full impact on the paua and rock lobster fisheries in particular along such a rich coast will not be known for some time. The images in the immediate aftermath of precious marine life slowly dying in the sunlight after the sea shrank away are certainly distressing.

However, there is lots of good news in this month's magazine.

The cover story features Seafood Innovations Ltd, the joint venture research partnership between Seafood NZ and Plant & Food Research that was set up to promote projects that grow the value of our seafood exports. SIL's current projects include rock lobster conditioning, king salmon food conversion and predicting mussel growth. With financial backing from Government, there is more money available for research projects to enhance the value of our products.

Also in this issue, we introduce Mark Edwards, newly appointed NZ Rock Lobster Industry Council deputy chief executive. His impressive credentials include 20 years in key roles in fisheries management in New Zealand and for the past six years he was director of policy and licensing for Fisheries Victoria in Melbourne.

In other news, Greenpeace and other environmental NGOs have lauded the seafood industry for its marked improvements in sustainability and impact on endangered species. Okay, I made that up – but they should have.

The Our Marine Environment 2016 report produced by the Ministry for the Environment detailed significant reductions in the impact of the seafood industry on endangered species. The seabird bycatch has almost halved over the past decade, largely due to the uptake of mitigation measures. Sea lion bycatch is also down, the trawl footprint has been reduced and commercial fish stocks are in good heart.

And the number of critically endangered Maui dolphins is estimated to have increased. The numbers are up only slightly but at least that is a step in the right direction. The situation is much rosier for Hector's dolphins where the latest survey puts numbers at about 15,000, more than double the previous estimate. That puts the lie to claims fishing activity is driving the species to extinction.

We profile our new Best Fish Guide website where seafood buyers can see for themselves that New Zealand's fish stocks are healthy and sustainable, backed by solid, science-based fisheries management.

There is also interesting feedback from the National Seafood Industry Leadership Programme that included commercial and recreational fishers, scientists, policy managers and wholesalers from across Australia and New Zealand. It turns out the disparate stakeholders all want pretty much the same thing – accessibility, sustainability, responsibility, employment, profitability, lifestyle, longevity and health.

All the best for the summer holidays and we'll see you again in our February 2017 issue.

Tim Pankhurst
Chief Executive



Peter Jones

Industry loses long-standing leaders

Matt Atkinson

Peter Jones was a dedicated family man and a hardworking fishing industry representative who spent most of his life fighting for the rights of commercial fishermen. He died in Wellington on November 5, aged 73.

Born in Wales, Peter moved to New Zealand in 1966 as a merchant naval officer, receiving his Masters ticket in 1970 before returning to his homeland.

Unable to stay away, Peter moved back to New Zealand in 1973, settling on the west coast of the South Island where he started trolling for albacore tuna on the *FV Francis*.

But for the majority of his career Peter fished the East Cape, long lining for deep water species and potting for rock lobster.

The contrast between the gum-booted fisherman up to his elbows in hapuka guts on the deck of the *FV Sunniva* and in later years the gentleman relaxing at home surrounded by fine art and an extensive library was only evident to those who knew him well.

Peter had an innate graciousness and sense of style, with an eye for fine design and craftsmanship, and an abiding interest in history and geography.

His extensive maritime knowledge served him well during his numerous leadership roles within the industry, including President of the Bay of Plenty Commercial Fishermen's Association and Executive Committee member of the New Zealand Federation of Commercial Fishermen (NZFCF).

Peter would later become Vice-President of the NZFCF and then serve

as President from 1995 until 2003. He remained a member of the Leigh Commercial Fishermen's Association until his death.

Peter and his wife Lesley were instrumental in steering the NZFCF through a period of transition and ensured a critical mass of membership was retained.

Alan Gard was vice-president of the NZFCF during Peter's presidency and says he had a profound effect on New Zealand fishing.

"He did a lot for sure, he helped in the set up the QMS and then continued to advise on how it should work," Gard says.

Peter and Lesley were rewarded for their years of dedication, when at the NZFCF's 54th Annual General Meeting in 2012, they were awarded an Honorary Lifetime Membership for their contributions and commitment to the industry and the NZFCF.

Peter made significant contributions to the welfare and career pathways of inshore fishermen by way of his representation on various maritime committees. His friendship and loyalty will be sadly missed by everyone in the industry. 🐟



Ted Collins

Marlborough fisherman Ted Collins spent close to 60 years in the fishing industry, dedicating his career to creating a sustainable fishery and advocating for those who made their livelihood from it. He died in Spring Creek on October 30, aged 79.

Ted was born in Blenheim and went to school at Marlborough Boys High School. He began his life as a commercial fisherman in 1958 when he received his first fishing licence, buying his first boat three years later.

Ted had a deep fondness for Marlborough and would spend his entire life fishing the area. His longevity in the region saw him become a life member of the Picton Fisherman's Association.

Ted's know-how and innovation was noticed early on in his career and 10 years after becoming a fisherman he was elected to the New Zealand Federation of Commercial Fishermen (NZFCF).

Those were tumultuous times for the fishing industry, and by the mid-70s New Zealand's fisheries were in trouble with the rallying cry at the time "too many fishermen chasing too few fish."

Ted served as President of the NZFCF from 1979-1981 and said his proudest achievement was helping to drive change that would become part of New Zealand's world renowned Quota Management System.

Daryl Sykes, NZ Rock Lobster CEO and friend of Ted's for over 40 years,

says Ted was a pioneer, an entrepreneur, and a bloody good bloke.

"Ted was a unique and engaging character and for decades worked selflessly for the fishing industry. There are no other 'elder statesmen' so widely acknowledged in the rock lobster industry – there is only Ted Collins."

Our friends across the ditch were also saddened by the news of Ted's death.

John Sansom, executive of the Tasmanian Rock lobster Fishermen's Association, says Ted's name was synonymous with rock lobster.

"He will be remembered fondly by the Old Guard in our fishery," Sansom says.

"I first met him in the late 70s when there were reciprocal visits between NZ and the then Professional Fishermen's Association of Tasmania. [He was] a dedicated and inspirational man that believed in looking after the fishermen as well as the fishery. 🐟

During his long tenured career Ted helped create long-lasting change in the industry, serving as a foundation member of the Rock Lobster Industry Association CRAMAC5 and the NZ Rock Lobster Industry Council.

In the 2015 New Year Honours list Ted was awarded the Queen's Service Medal for his contribution to the fishing industry.

Ted will be remembered for his deep love of the Marlborough region and for

spending most of his life advocating for the fishing industry.

He is survived by his children Sue, Jan and Peter, his seven grandchildren and three great-grandchildren. ➔

Letter to the editor

Thanks for the excellent coverage you provided on our newly launched FV Endeavour in the October 2016 issue of Seafood NZ.

We really appreciate the magazine and the informative stories that it always contains. It was exciting to see in this one issue the Santy Maria, Endeavour, San Granit, and Sealord's new build all featured. We trust that further new builds are coming on stream soon to support the catching sector, the often

forgotten part of the seafood industry – where the fish actually comes from.

Thanks again
Andrew Stark
Stark Bros Ltd

Seafood industry continues to reduce environmental impact

Matt Atkinson

The New Zealand seafood industry continues to take steps to reduce its impact on the marine environment, a government report released in October says.

The report, *Our Marine Environment 2016*, was produced by the Ministry for the Environment and highlighted the major issues facing New Zealand's oceans and coastlines.

At the report's launch Secretary for the Environment Vicky Robertson said changes to fishing practices in recent years has alleviated pressures on the marine environment.

"There have been some significant decreases in this area we expect are mostly due to the uptake of mitigation measures such as bird scaring and sea lion exclusion devices," Robertson said.

"The number of seabirds caught by commercial fishing bycatch almost

halved from around 9,000 in 2003 to 5,000 in 2013."

Seafood New Zealand Chief Executive Tim Pankhurst says the industry's efforts to reduce its impact are paying off.

"All of the indicators show the seafood industry's comprehensive strategies to reduce its impact on the environment are working to ensure that the fish and other marine life are there for future generations of New Zealanders to enjoy," Pankhurst says.

An area of concern in the past had been commercial fisheries bycatch numbers. However the report showed a steady decline in bycatch figures reflecting the hard work by industry to lower its environmental footprint, he says.

"It's pleasing that the report notes that dolphin bycatch has decreased over the last decade, as has fur seal bycatch. As with seabirds, the report notes that these decreases are thought to be partly due to increased use of mitigation measures, such as bird scaring devices on fishing vessels."

The Quota Management System also showed itself to once again be a world leader in creating sustainable fishing practices, Pankhurst says.

"It's also heartening that the management of New Zealand's

commercial fish stocks compares well with other countries – the number of fish stocks overfished in New Zealand was almost half of the global estimate for overfished stocks."

The report also noted the industry's falling impact on the sea floor, with the number of trawl tows decreasing by half between 1997 and 2014.

Climate change also featured prominently in the report, with acidification and rising sea levels continuing to present problems.

"As the report notes, global greenhouse gas emissions causing ocean acidification and warming are a major concern for us all."

The seafood industry also plays a major role in the New Zealand economy providing employment for more than 47,000 people, a companion report released by Statistics New Zealand said.

The report, *New Zealand Marine Economy 2007-13*, showed that fisheries and aquaculture contributed 22 per cent of the marine economy, which accounts for 1.9 per cent of the total gross domestic product (GDP).

"The seafood industry is one of the country's top export earners reaching \$1.8 billion this year and what this report confirms is that it is a significant source of employment," Pankhurst says. ➔



Sustainable New Zealand seafood choices just a mouse click away

Consumers can now choose sustainable New Zealand seafood with confidence.

With the launch of Seafood New Zealand's Best Fish Guide website, seafood buyers will now be able to see for themselves how New Zealand's fish stocks are healthy and sustainable, backed by solid, science-based fisheries management.

The website guide will let consumers browse through all our fish species and their sustainability credentials, tips for buying New Zealand seafood, and some great recipes.

Seafood Zealand Chief Executive Tim Pankhurst says the Best Fish Guide website is a great way of helping consumers choose from a wide range of nutritious and tasty seafood, harvested sustainably from our pristine waters.

"We hope this guide helps everyone choose and enjoy New Zealand seafood

with confidence.

"New Zealand is internationally respected for its innovative and world-leading approach to sustainable science-based fisheries and aquaculture management.

"Consumers will be able to see just how healthy our fish stocks are, underpinned by sound, peer-reviewed science, and why our fisheries are internationally recognised as being among the best managed in the world."

Five popular New Zealand fish species - hoki, hake, ling, albacore tuna and southern blue whiting, have gained Marine Stewardship Council (MSC) certification, the global gold standard for sustainability, with more species being prepared for certification, Pankhurst says.

"Three of New Zealand's orange roughy fisheries are in the MSC assessment process for certification.

"That's something to be proud of."

The New Zealand seafood industry's work around ensuring the survival of protected marine life such as seabirds, dolphins and sea lions will also be featured on the Best Fish Guide website with the help of specially designed factsheets.

"The seafood industry takes its responsibility of ensuring the survival of protected marine life very seriously,"

Pankhurst says.

"The factsheets highlight the raft of measures that the industry actively adopts to reduce incidental captures and death rates during fishing, including the development of effective innovations such as Sea Lion Exclusion Devices (SLEDs) and Precision Seafood Harvesting."

The Best Fish Guide website serves as a guide for not only individual consumers but top chefs in New Zealand and around the globe, who are keen to know all about New Zealand seafood's sustainability credentials.

Queenstown chef Darren Lovell, whose restaurant Fishbone Bar and Grill won a One Hat award in the 2016 Cuisine Good Food Awards, is already a strong advocate for the sustainability of New Zealand seafood.

The orange roughy fishery is on the verge of being declared a completely sustainable fishery today, Lovell says.

"It shows our fishing industry really cares about our fish stocks.

"I am proud to serve New Zealand seafood, it is the best in the world, it is the most sustainable and I am going to tell everyone I can about it."

Visit our Best Fish Guide website on www.bestfishguide.co.nz and share it on. 



Image: Martin Stanley

“What it does show is that Maui numbers over the past five years have stabilised, which can only be good news.”

Maui dolphin numbers increase

A new estimate of Maui dolphin numbers is encouraging for the future of the species, Primary Industries Minister Nathan Guy and Conservation Minister Maggie Barry say.

The preliminary results of a comprehensive scientific survey carried out over the last two summers has estimated the population of the critically endangered dolphin at approximately 63 adults, with 95 per cent confidence there are between 57 and 75.

This represents an increase from a 2010-11 survey which estimated the number of adults at 55, with 95 per cent confidence there were between 48 and 69.

“These results are encouraging but there is no dispute the Maui population remains at a very low level and the Government remains committed to

ensuring their long-term survival,” Barry says.

“While it is impossible to count every dolphin in the sea and this figure can only ever be an estimate, the survey was carried out according to rigorous scientific standards.

“What it does show is that Maui numbers over the past five years have stabilised, which can only be good news.”

DOC, MPI and researchers from Auckland and Oregon State universities carried out the survey using a boat-based “mark-recapture” technique – taking genetic samples from encountered dolphins over two summers, then comparing results to count how many unique dolphins were spotted.

“This survey is as close to definitive as it is possible to be and a great improvement on desktop-based predictive modelling figures which have been widely publicised in the last few years,” Barry says.

It follows a recent survey which found the population of Hector’s dolphin is about 15,000, more than double the

previous estimate of 7000.

The full report from the abundance survey was due to be published in November and used to inform the review of the Hector’s and Maui Dolphin Threat Management Plan (TMP) scheduled for 2018.

The TMP has been in place since 2008 and identifies human-induced threats to both dolphin species and strategies to mitigate them.

Primary Industries Minister Nathan Guy says the new figures are an encouraging sign the restrictions on fishing are having an effect.

“More than 1700 square kilometres off the west coast of the North Island have been closed to trawl net fishing since 2003, and over 6200 square kilometres closed to set netting,” says Guy.

“Since July 2012 there has been mandatory observer coverage on all commercial set net vessels operating offshore out to seven nautical miles in the Taranaki region. Since March 2014, there has also been increasing observer coverage on the trawl fleet north of Taranaki.” 



Crew member on *FV Commission* next to a northern bluefin tuna caught on a Hookpod. Image: Dave Goed

New seabird mitigation device being trialled

Becky Ingham, CEO Hookpod

The fishing industry around the globe is grappling with the issue of seabird bycatch in surface longline fisheries.

There are several solutions already in use and under development.

The Hookpod, designed by UK engineers Pete and Ben Kibel, in conjunction with Ben Sullivan of BirdLife International is being trialled in New Zealand waters.

The Hookpod is a device that the hook sits in until it is well below the surface and out of harm's way. It uses a spring and a piston within a sealed air chamber to release the hook at a safe depth. The pressure in the chamber increases with depth as it descends in the water, causing pressure on the piston to fire the device open. Once open, the system is flooded with water and immune to pressure, meaning it can successfully be operated again after being at depth.

Over the last seven years, the team has worked with international fleets to find a design that eliminates seabird

bycatch during setting without impact on either the target catch rate, the operations on board or the setting time of the lines.

Recently, trials have been undertaken in New Zealand with the support of the Department of Conservation (DOC), the Ministry for Primary Industries and Leigh Fisheries. The trial was funded through the Conservation Services Programme.

Owner of the *FV Commission*, Wayne Kusabs, has been involved with testing the pods, along with skipper Mike Te Pou.

"Hookpods are a great invention and they are working well for us," says Te Pou.

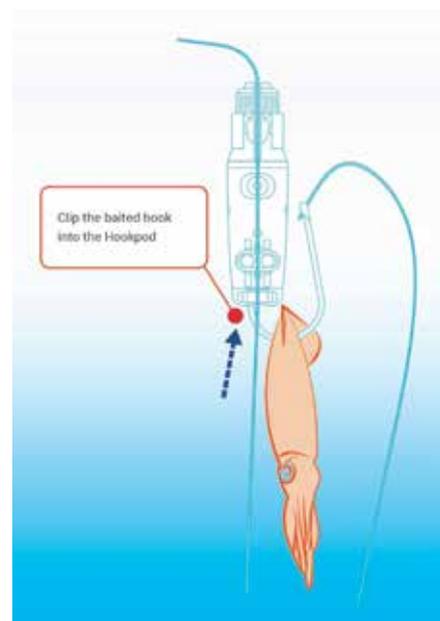
"At first I was a bit suspicious of them, thinking it could affect our catch, but after using them I've noticed that our fishing has not been affected in any way. On a few occasions the Hookpods actually out-fished our regular gear and caught more fish; whether this is a coincidence or not isn't clear.

"Not one single bird has been caught on the pods so far from the tests we have run and we have caught the odd bird on our regular gear. Shooting and hauling is no different to how we do it with regular gear. It just takes the crew a few sets to get used to them."

Trials are now in place to see how the pods perform over a longer time period in commercial operations, again on the

FV Commission.

The first trip was with researcher Dave Goad on board. "It was great to be involved with the trials. The crew quickly got the hang of setting at normal speed with the pods, and flaking them into the bin at the haul. Pods are surprisingly robust and they slightly out-fished the vessel's normal gear. I think the best thing about them is that they give surface liners a new mitigation option," says Goad. ➔



Hookpod diagram. Image: Dave Goed

International convention for fishing safety

New Zealand is adopting international rules on certification for commercial fishermen, aimed at making fishing safer and ensuring New Zealand fishers will have their tickets recognised internationally.

Following public consultation in April 2015, the Government decided to accede to the International Maritime Organization's International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995 (known as STCW-F).

Maritime NZ consulted on rule changes required as part of this process. The consultation closed on November 7.

The convention covers crew working on fishing vessels of more than 24m in length or with propulsion power of 750kW or more, operating beyond 12 nautical miles from shore.

There are around 60 New Zealand-

flagged vessels of this type operating in these areas.

New Zealand seafarers with STCW-F-aligned tickets on New Zealand's SeaCert framework will be able to have their qualifications more readily recognised by the 19 states that have also acceded to the convention. These include Canada, Norway, Denmark and Spain.

New Zealand's SeaCert framework already largely aligns with STCW-F but changes will be made to ensure full compliance, including:

- Increasing the sea service requirement for renewal of Marine Engineer Class (MEC) 4 and MEC5 certificate holders, who wish to exercise the associated fishing privileges, from 6 months sea service in the last 5 years, to 12 months sea service in the last 5 years.
- Clarifying the minimum age requirement of 18 years for MEC4 and MEC5 certificates. These rule changes will take effect five years after

New Zealand accedes to the convention. It is expected that the convention will be in force in mid-2017.

Acceding to the convention also gives New Zealand an enhanced ability to inspect foreign-flagged fishing vessels to ensure they meet the STCW-F standards.

Foreign fishing vessels operating within New Zealand's EEZ must be flagged to New Zealand, but the rule change will allow Maritime NZ to carry out Port State Control inspections – covering crewing issues of foreign-flagged fishing vessels that transit New Zealand waters, even if they do not fish.

Maritime NZ Director Keith Manch says acceding to the convention is good news for those working in the fishing industry.

"This convention brings New Zealand fishing certificates into the international framework for the first time," he says.

"It will have considerable benefits and will assist New Zealand's efforts to improve safety in the fishing sector." ➔



Brian Blanchard

New director of aquaculture at Mt Cook Alpine Salmon

Mt Cook Alpine Salmon's new Director of Aquaculture, Brian Blanchard, is very impressed with the region's fantastic conditions for raising king salmon with exceptional flavour.

Blanchard took charge as Mt Cook

Alpine Salmon's new Director of Aquaculture in October, in what is a newly-created role in the company's senior management team.

"I was very impressed with the unique environment that is here in Mackenzie District associated with the hydro

system," he says.

"The conditions here are fantastic for raising king salmon and the product quality and flavour is beyond exceptional. The role is challenging yet very achievable and the location is unbelievable.

"My wife and I were ready for a new challenge, our children are young adults who can easily manage without us. The lure of New Zealand, and the timing seemed perfect, so here we are!"

The Twizel-based role sees Blanchard being responsible for all of the company's salmon farming operations, including hatcheries.

Blanchard, 50, who relocated from Canada with his wife Sharon to take up the full-time role, says he has been thoroughly enjoying his time at Mt Cook so far.

"The community, team, and

overall company have been incredibly welcoming."

As Director of Aquaculture, Blanchard is most looking forward to helping Mt Cook Alpine Salmon reach its full farming potential and provide export markets with a truly high quality aquaculture product.

An initial trip to Mt Cook Alpine Salmon saw Blanchard accompany CEO David Cole to the retail shop at Lake Pukaki, overlooking majestic Mt Cook.

"We sampled some of the sashimi found in the shop; the taste and the view is an amazing experience that I recommend to everyone.

"This is what captured and convinced me that this is truly a company and home where I want to live and work."

Blanchard holds a master's degree in science, majoring in aquaculture, from the University of Hull, England,

a graduate diploma in aquaculture technology from the Marine Institute of Newfoundland in Canada, and a BSc in biology from St Francis Xavier University.

CEO David Cole says having someone of Blanchard's experience is invaluable to the company.

"Much of our salmon is produced for high-end export markets where customers expect us to perform and deliver to a set of global benchmarks.

"Having someone of Brian's experience will be invaluable in helping us meet and exceed these expectations."

Although he has never worked in New Zealand before, Blanchard has a strong affinity with New Zealand's national sport, having been a women's rugby coach and still playing front-row club rugby in Canada until the time of his appointment. 🇳🇿

New Marlborough District councillor keen to work for "diverse, dynamic community"

Polling first in her election to the Marlborough District Council is "heartening" for first-time councillor Nadine Taylor.

"To poll first in my ward against two sitting councillors gives me a great mandate to start from."

Taylor scored 1120 votes, 328 more than incumbent David Oddie with 792 votes.

As a businesswoman who runs fishing company Legacy Fishing Ltd in partnership with her husband Graham

Taylor, Nadine admits she was a bit nervous about how she would poll when she started her campaign.

Being in the seafood industry can sometimes feel like being an easy target for all of the ills that face the marine environment, she says.

"But those that target us are just a vocal minority.

"Our local community really knows what we put in – all the hard work and effort."

It is this varied community that Taylor is really keen to work for.

The Marlborough region has a diverse, dynamic community and local economy – marine and dairy farming, fishing, tourism, hospitality and a major north-south transport hub.

Local government can play an even bigger part in recognising the potential of its small towns and industries and taking them further, she says.

Taylor has been an active community member over the last 20 years – as a member of Marlborough Marine Futures, executive member of Marlborough Marine Radio, chairperson

of the Picton Early Learning Centre, chairperson of the Waikawa School Board, and a founding committee member of the Picton Foodbank. 🇳🇿



Nadine Taylor



Pelorus Jack remembered

Pelorus Jack, the dolphin who was a friend to Marlborough Sounds fishermen and others travelling through the sounds in the late 19th and early 20th century, has been immortalised in a sculpture at French Pass.

After 16 years of planning and a huge fundraising effort by the French Pass community, the life-size bronze sculpture was unveiled at the village in October.

In his final duty as Marlborough District Councillor for the Sounds, Graeme Barsanti lifted off the cover to reveal Pelorus Jack, a Risso's dolphin that greeted passengers on boats travelling between Wellington and Nelson from 1888-1912. He became known around the world, with people booking a passage just to see him. The rare white dolphin attracted a crowd again at the unveiling, with about 80 people there.

Barsanti paid tribute to local tourism operator and environmentalist Danny Boulton who started the project back in 2000 after getting a request from a Texas primary school teacher for information about Pelorus Jack. "Danny said we have this world famous dolphin and there's nothing here to show for it. So he set about doing something about that."

Laurence Etheredge, chairman of the French Pass Residents Association,

says rising prices for bronze meant the project always crept out of reach until the Marlborough District Council and Lottery Grants came on board. A magazine article sent to Laurence by a friend led him to Dunedin sculptor Bryn Jones, who was commissioned to capture Pelorus Jack in bronze.

"We have many people to thank, including TNL who transported Pelorus

Jack and the base plinth all the way here," says Laurence. "But it was Danny Boulton who had the idea and his dogged determination kept this project going."

Stories and songs about Pelorus Jack were shared by Ngati Koata and French Pass residents before Pelorus Jack was unveiled. 🐬

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Mark Edwards

Passionate about ocean resource management

The ocean has been a big part of NZ Rock Lobster Industry Council Deputy Chief Executive Mark Edwards' life.

Growing up just two blocks from the beach in St Kilda, Dunedin, and often hearing the surf crashing at night started his fixation with the ocean, and since then it has never been too far from Mark's mind in both his day job (managing fisheries) and his leisure time (surfing, paddle boarding, wind surfing and fishing).

Living by the coast, and watching scientist and explorer Jacques Cousteau on TV was what drew him to study marine sciences, followed by a career in fisheries management.

Mark worked for New Zealand's Ministry of Fisheries for over 20 years, holding various senior management positions as well as Chief Policy Advisor, with experience in policy and regulation, legislation, governance, settlements and international negotiation.

Before taking on his new NZRLIC role in early October, he was Director of Policy and Licensing for Fisheries Victoria, Australia, for six years.

He spoke to Sai Raje about what he is looking forward to in his new role and what he likes best about being a fisheries manager.

Six years away from New Zealand, how does it feel getting back to Wellington?

It is great to be back in Wellington and New Zealand. I missed the bush and the birds and the easy access to the wilds. I will always be a Kiwi – I never did get the hang of AFL – always seemed chaotic compared to the structure of rugby and the discrete functions expected of the different positions. A key motivation for returning was to spend more quality time with my two daughters, now 14 and 10. You can do a lot on Skype, and during holidays, but you can't go to the park after work and practise volleyball skills, and go along and cheer at netball games.

What are you most looking forward to in your role on the New Zealand Rock Lobster Industry Council?

Working with quota owners and the catching sector in the rock lobster industry to make a meaningful difference in efficiency and value delivered by the management model while ensuring sustainable use. I think the NZRLIC and NRLMG models can continue to deliver best practise fisheries management and work with the department and other sectors to lead further development and reform of fisheries management.

What I have seen so far in the role confirms the capability and intent of the directors to work constructively as responsible stewards for the resource and address the challenges and shortcomings of the current regime.

You have worked for over 20 years in key roles in fisheries management in New Zealand, and the last five years in Australia, with some great milestones along the way. What achievements are you particularly proud of and why?

I had the opportunity to do some rewarding work in Victoria including establishing new fisheries, developing strategy, governance of representative bodies and working on management plans and harvest strategies, but I think the biggest area of progress came through cost recovery.

The existing retrospective system lacked transparency and was a source of acrimony between industry and

government. We transitioned the regime to a prospective one based on comprehensive schedules of costed services for each fishery, with performance measures for accountability.

This facilitated the discussion between the department and industry about efficiency and whether the service could be better formulated to deliver the outcome sought, before any levy was charged. It led to real benefits through revision and refinement of services.

Of course levy invoices still generate intense interest, but the dynamic of the discussion changed to one where there is the opportunity for constructive discussion about how to do things better, and build shared understanding of how and why we manage.

In terms of work in New Zealand, I can reflect on some very satisfying progress in fisheries management reform and regulation, the settlement space and international work.

To focus on only one area of legislative reform, I think we developed a legislative framework in the Fisheries Act that built on the absolute fundamental of fisheries management, to constrain take of each stock to sustainable levels, but developed a set of subsidiary mechanisms, which allow outputs to work in the real world of unpredictable catch in mixed species fisheries on a daily basis.

These mechanisms include deemed values as a variable civil sanction, creating incentives to balance ACE with catch, but allowing temporal flexibility. Other key tools include the ACE register, the management plan framework and the flexibility in provisions for setting the Total Allowable Catch (TAC) in sections 13 and 14 of the Act. I am not sure the potential of these tools is being fully used to address some current big issues for fisheries management.

What led you to study marine sciences?

I grew up in Invercargill and Dunedin with the shift to St Kilda in Dunedin when I was about 12.

Our house was two blocks from the

PROFILE

beach. I could hear the surf crashing from my bedroom at night. From that point, the coastline and the ocean were a big part of my life. That, and Jacques Cousteau on TV, led me to study marine sciences. When I by chance attended one of the "Green Paper" consultation forums in the early 80s debating whether quota was the answer to NZ's fisheries management problems I knew what I wanted to do for a career.

Going back to the classroom to complete an executive masters in public administration, was that a natural progression from your then role in government?

After more than a decade out of the academic environment, the MPA was an opportunity to be exposed to the latest thinking on resource management, governance and regulation, economics and decision-making. It was very intensive for two years, but well worth it because of the quality of the curriculum and the opportunity to upskill.

From Chief Policy Advisor, Ministry of Fisheries, New Zealand to Director, Policy and Licensing, Fisheries Victoria. How different were the challenges in both the roles and countries? What did you enjoy most about both?

Both jurisdictions have delivered on my career-long fascination with fisheries management. There are marked differences in context and

detail between New Zealand and Victoria, but the fundamentals of fisheries management are the same. I am motivated by the combination of resource management, science, economics, and the contested views and perspectives - all in the context of the ocean environment.

What excites you most about being a fisheries manager?

What gets me in to work every day is my passion for working with people, incentives and rights-based frameworks to deliver great fisheries management outcomes – for the fisheries resources, and for the people and communities that generate economic, social and cultural benefits from their wise use.

Favourite way to unwind after a hard day at work?

Surfing is my biggest passion, and I have travelled a lot to find great waves. I also enjoy paddle boarding, windsurfing and fishing, play tennis and go mountain biking and running. Exercise outside is a key to sanity, to balance the weekday grappling with fisheries management.

Great surf spots you have travelled to?

I am a goofy – (right foot forward) so favour left handers. My all-time favourite breaks would be Mundaka in Spain, Uluwatu on Bali, Frigates Pass off Fiji, Supertubes (west of Shipwreck Bay, Ahipara) and Aramoana near Dunedin.

Did you take to the water and fishing with your family after moving to St Kilda?

The rest of my family are aquaphobes in comparison – surfing was something I got into with a couple of school friends after finding a broken surfboard in a garage we were asked to clean out. A big part of the motivation was the isolation and beauty of the Otago coastline.

I was also pretty keen on fishing as a kid. I used to pushbike around to spots in the Dunedin environs and take my rod on all family holidays.

Good memories on the water?

My parents tell me that the first time they remember me fishing was in Cascade Creek in Fiordland on a camping holiday when I would have been 5 or 6. I had a bent pin for a hook, luncheon sausage for bait. Apparently I went missing and was eventually found sitting by the side of the creek in the rain dangling my rig in the water hopefully - caught nothing!

Surfing has been the motivation and focus for many of my holidays since I was about 18 and has taken me all over the world. I have spent a lot of time in Indonesia, particularly, finding places away from the known locations. That involved a lot of travel by local bemos and jukung (outrigger canoes) and staying in some pretty primitive places. ➔

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Adding value through research and innovation

“What we are really looking for is projects where new research or technology will deliver significant benefits and there is a clear pathway for translating the science into business benefits.”

Mike Mandeno, SIL General Manager



Adding value through research and innovation

Debbie Hannan

The New Zealand Government has set an ambitious target of doubling export volumes.

Under the Business Growth Agenda, seafood's target is \$3 billion by 2025.

But that is way too timid, according to the keynote speaker at the Seafood New Zealand conference in August 2015.

KPMG's Global Head of Business, Ian Proudfoot, argues we should be aiming at 5 percent of 800 million, and the elite who can afford to pay a premium.

And we should be aiming for \$6 billion, not \$3 billion.

Consumers globally are increasingly being influenced by factors such as health benefits, food safety and ethical

and environmental credentials of the food they are purchasing. They want to know where it comes from.

New Zealand sustainably harvests some of the world's premium seafood and has high standards in getting it to market. But are we doing enough to make the most of what we harvest and to exceed those customer demands?

The seafood industry recognises these challenges and is constantly seeking innovative ways to add value to its products.

An industry-led initiative, Seafood Innovations Ltd (SIL), was established in 2004 as a joint venture research partnership between Seafood New Zealand and Plant & Food Research, with funding from the Ministry of Business, Innovation and Employment (MBIE) to promote research projects that grow the value of New Zealand's seafood exports.

"Our aim is to underpin growth of the seafood export industry by increasing returns from the seafood harvest through developing and commercialising innovative products

that appeal to consumers," says SIL's General Manager, Mike Mandeno.

"SIL is there to help take industry from a harvest, pack and ship approach to diversifying into using seafood components for food, health and industrial applications," he says.

"There are enormous possibilities by adding value through using every part of the fish and developing new products that are appealing to consumers.

"Hoki, squid, Greenshell™ mussels, rock lobster, orange roughy and paua are our main exports today, but tomorrow you could see New Zealand as a key ingredient in "benefit plus" foods, nutraceuticals and pre-prepared meals around the globe.

"We're always looking for great new projects to fund. If you have an idea or want to know more contact us through our website www.seafoodinnovations.co.nz"

SIL has funded a variety of products over the past two years. Over the following pages we profile three projects adding value to the seafood industry. 🇳🇿

Science to maximise returns in a sustainable fishery

Rob Tipa

Seafood Innovations Ltd (SIL) and industry-funded research into the varying conditions of rock lobster across the seasons is bringing substantial economic returns to rock lobster fishers in the lower South Island.

The research, conducted by NIWA scientists, has confirmed observations by southern fishermen that the nutritional value and condition of rock lobsters varies at different times of the year according to their moult and

reproductive cycles, allowing fishers to get maximum returns by targeting lobsters in prime condition.

The project is one of three that the CRA8 Management Committee has invested in with the support of Seafood Innovations (SIL) over a number of years, resulting in significant financial gains in the CRA8 quota management area - the largest rock lobster fishery in New Zealand, covering South Westland, Fiordland, Stewart Island, Foveaux Strait, the Catlins and adjacent islands.

With a total allowable catch of 962 tonnes, the CRA8 quota represents 36 percent of the national production of rock lobster, which is the most valuable inshore fishery of any species in New Zealand and a top export earner for the seafood industry.

About 96 percent of rock lobsters landed in the CRA8 area are exported live to markets in China.

CRA8 Management Committee Chief Executive Malcolm Lawson says the

research project achieved what it set out to do, confirming long-held suspicions of southern fishermen that the quality of rock lobsters varied at different times of the year.

Lawson says the project's goal was to establish the extent that lobsters lost or gained condition in relation to their moult and reproductive cycles.

"The real value of this project was filling in the gaps in our knowledge and being able to map the shift in condition of lobsters at various times of the year," he says.

Small rock lobsters moult (shed their exoskeleton) at regular intervals. Small juveniles may moult up to five times a year, medium-sized specimens moult once or twice a year while large mature lobsters may only moult once a year.

Lobsters build up their reserves over spring and summer, but because they don't feed approaching or during the moult their condition drops off. Both males and females stop feeding



A scientist takes a blood sample from a rock lobster. Image: NIWA

“The other part of it is that lobsters caught in poor condition will actually recover very quickly if they are fed a suitable food source.”

when they are busy finding mates. The condition of breeding females also drops off when they are carrying eggs.

“The longer they carry eggs the more their condition reduces,” Lawson says. “The other part of it is that lobsters caught in poor condition will actually recover very quickly if they are fed a suitable food source.”

Lawson says fishermen obviously have no control over rock lobsters’ natural moult or reproductive cycles, but knowing how quickly they lose condition during these phases and how quickly they recover condition afterwards is important.

NIWA researchers Dr Alison MacDiarmid and Rob Stewart completed the research project between 2012 and 2013 and produced a final report on their findings in April 2014.

MacDiarmid says one of the highlights of the project was establishing that the simple and reliable

blood refractive index (BRI) test could be used to check the loss and gain of condition in rock lobsters through the moult and reproductive cycle.

The BRI technique was developed in Australia and is used to monitor the condition of rock lobsters there and in Canada to monitor the condition of clawed lobsters.

NIWA scientists found the BRI test was a useful way to monitor the condition of adult male and female rock lobsters by measuring changes in their blood protein levels at different times of the year.

“We knew their condition was likely to vary anyway in a natural wild population,” MacDiarmid says. “We found if lobsters stopped feeding their condition deteriorated, sometimes within days, and we can measure that with a blood refractive index test.”

Scientists were also able to measure rock lobsters’ recovery when they started feeding again.

Their findings are significant for the industry because for various reasons fishermen often hold lobsters in pots in the CRA8 southern region. They know that it is essential to feed lobsters to maintain or even improve their condition.

MacDiarmid says results of the BRI test on live lobsters landed at packing houses or held in tanks at NIWA’s laboratory, where they were fed or held for periods without food, clearly showed lobsters were in better condition at certain times of the year.

“The BRI test is an excellent tool for the industry to monitor the condition of lobsters at different times,” she says. “Unfortunately the period when lobsters are in their poorest condition may coincide with the time when their market value is highest.

“It is a bit of a conundrum for the industry, but our work shows you can influence their condition. If you catch them, hold them for a period and feed



NIWA's Rob Stewart analyses the results from a blood test. Image: NIWA



A blood sample is dropped on to a viewing screen. Image: NIWA

them, then their condition will recover provided they are not in a period when they naturally stop eating around mating and moulting."

MacDiarmid believes the BRI test offers the industry an excellent tool if it is used routinely to monitor the condition of lobsters at different times of the year.

Fishing boat crews or packhouse operators could learn the skills required to do the test themselves in a couple of hours. The technique is similar to that used by fruit-growers who use a BRIX test to monitor sugar levels in fruit crops.

NIWA's report to the industry has recommended minimum blood protein levels, below which live lobsters were unlikely to survive the journey to export markets.

"You can use this tool as a way of ensuring that the highest quality lobsters are actually landed and exported overseas," MacDiarmid says. "It will indicate when it is safe to catch lobsters and what places are best in terms of catching lobsters in the best possible condition."

She says good fishermen look closely at the condition of the lobsters they land anyway for the loss of limbs, any sign of disease and their general health and vigour. But unless fish are at one extreme or the other it is often hard to make a judgment call based on a visual inspection.

"This tool gives them more finesse and insight into what's happening with

the fished population," she says.

Lawson confirms NIWA's research definitely shows a correlation between the moult cycle and the best time of year for fishermen to catch fish.

Every piece of research about the lobster's life cycle helped the industry's understanding of its physiology, he says, and that information helped fishermen and exporters to predict the likely quality of rock lobsters at any time of the year.

Markets and prices strongly dictated the best times of year for fishermen to catch lobsters, but this research would help the industry understand the likely quality and performance of their catches in export markets at any time of year.

One of the price peaks was in January in the lead up to the Chinese New Year when demand was huge, so fishermen naturally targeted that market, Lawson says.

"We now know that small lobsters have just come through a moult period in January and are just recovering in condition so fishermen take particular notice of each fish to make sure it is going to be strong enough to land it and of top export quality."

"The Chinese are paying a premium price and the CRA8 exporters aim to send them a premium product."

He says the strategy adopted by the CRA8 Management Committee has shifted in recent years and fishermen are landing fewer rock lobsters than they were under the previous maximum sustainable yield model.

"Sustainability is a given. That's the bottom line," he says. "Instead of a maximum sustainability yield model, we're looking more at a maximum economic yield model, which is underpinned by a high abundance of fish in the water."

"The market varies at different times of the year in terms of demand for various grades and therefore prices vary."

Lawson says the aim is to have enough abundance of rock lobster stocks in the water that is well above the level of sustainability, allowing fishermen to make decisions about when and where they go fishing and what grades they land to maximise economic returns for them and the wider economy.

"In our fishery it's all about catching as much of the available quota at the time of year when the prices are highest. To be able to do that you've got to have high abundance, otherwise people are going to be fishing all year to fill their quota and we're well away from that situation."

Lawson says the southern region operates on "a very conservative level" so that rock lobster numbers remained high and fishermen could achieve a favourable economic return for their effort.

"If you can catch the right grades of lobster at the right times of year when prices are high, it also keeps your associated costs - such as gear, bait and fuel - down," he says. 🌊



New Zealand King Salmon has employed NMIT aquaculture student Michael Scott to carry out the daily husbandry of the fish in the trial tanks. Image: NIWA



Image: NIWA

“It’s one of those things where each time we do a trial and learn something we can compare it to the previous trial we have done. The more we do, the more we have to compare and therefore the more gains we make.”

SIL project promises economic and environmental gains

A series of trials to improve the feed conversion ratio of farmed king salmon will improve economic return and environmental impact, say project leaders.

New Zealand King Salmon (NZKS) is working with the Cawthron Institute, Seafood Innovations Ltd (SIL) and international salmon feed companies on the \$5.2million research programme to ascertain the optimal diet.

NZKS Fish Health Manager Mark Preece says the SIL funding has allowed for science specific to the species. “Coupled with our world-leading classical breeding programme, this research will ensure we are doing our absolute best to meet the nutritional requirements of our salmon, resulting in the best possible eating experience for our customers.”

There has been a great deal of research into the optimal diet for

Atlantic salmon, but little for king salmon, which makes up less than half a percent of the world’s farmed salmon, says Mark.

Upon receiving SIL support for trials in 2014, the company and Cawthron worked with salmon feed experts around the world to come up with two diets they believed would be nutritionally superior, based on knowledge of king salmon and of the Atlantic salmon diet.

“We asked our feed companies to manufacture those diets and then trialled them in optimal water temperatures of 16°C for the first trial. In the second trial, which was completed in October, we used 19°C water, which represents the most challenging summer temperature in the Marlborough Sounds.”

In the 16°C trial, tests have shown a 6 percent improvement in feed conversion ratio (FCR), while the 19°C trial indicated an 8 percent improvement, he says. “The improvements will reduce the amount of feed we use from smolt to harvest, improving both the economic and environmental outcomes.”

The best trial diet has already been put in place on NZKS’s Marlborough Sounds sea farms, in order to improve fish performance. The third trial will

began in November, in order to further refine the diets.

The project, run at Cawthron’s Aquaculture Park in Nelson, uses nine tanks, with the new diets trialled in six tanks of around 70 fish each, and a commercial diet run in the final three tanks.

Cawthron project leader Kevin Heasman says the trials have made good progress, but still have some way to go. “It’s one of those things where each time we do a trial and learn something we can compare it to the previous trial we have done. The more we do, the more we have to compare and therefore the more gains we make.”

Over the next two years of the programme he will run between six and eight additional trials. That work will have a “significant” impact on the future of salmon farming in New Zealand, he says.

“For every bit of improvement we can implement in terms of the FCRs, and understanding of the digestibility of the various ingredients within diets, the more we can improve the quality of the fish, the economics of growing the fish to a final product and the speed to which you get them to harvestable size, all the while maintaining the sustainability of the product.” 🐟



Winds of fortune

Many New Zealanders doubt their daily weather forecast but as Brendon Burns discovers, an SIL-funded research project is matching climate patterns with other data to predict mussel growth.

Last summer, mussel farmers in the Marlborough Sounds enjoyed some of their best growth rates in years. While some saw it as a windfall, others had early signals through a climate predicting project part-funded by Seafood Innovations Ltd (SIL).

Dr Mark James of Aquatic Environmental Sciences Ltd is heading the five-year project to establish better relationships between mussel condition and environmental variables and provide predictions of greenshell mussel condition. Now in its third year,

it extends to the major mussel growing regions - Firth of Thames, Stewart Island, Pegasus Bay and Golden/Tasman Bays - but initially centres on Pelorus Sound. The project is co-funded by Sanford and the Marine Farming Association (MFA).

"We know that Pelorus accounts for about two-thirds of New Zealand's greenshell mussel production but we see large annual fluctuations in the meat yield, sometimes more than 20 percent," says James.

That can create real headaches for companies like Sanford.

Mussel farming manager Zane Charman says that in the past seasonal fluctuations in crop condition have caused unpredictability in harvest levels.

"This creates challenges with forecasting of future vessel and farm capacity requirements."

The project supported by SIL, Sanford and MFA is using environmental variables including climatic trends and

other data to give predictions which Charman says to date are proving highly promising.

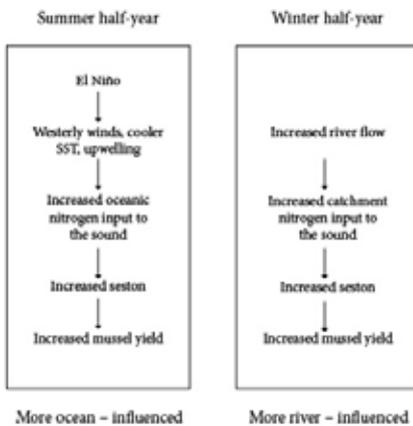
One key factor is whether the New Zealand summer will be in an El Nino or La Nina pattern. Last summer brought the usual strong westerly wind patterns of the El Nino/Southern Oscillation (ENSO) climate cycle.

James says that causes ocean upwelling and movement of nutrient-rich water towards the Marlborough Sounds.

"As these waters are drawn into Pelorus Sound, the nitrogen drives higher phytoplankton production (seston) which mussels consume and can result in higher meat yield."

Past NIWA research on the Pelorus Sound and Pelorus River, not yet matched in other mussel production areas, has provided the basis for predictions about Pelorus Sound.

"Wetter winters increase river flows and also add more nutrients to the



Mussel farming manager Zane Charman

Sound while in summer nutrients from outside Pelorus are important.”

This summarises the chain of climatic effects that drive seston and mussel yield. In the summer half-year (October through March) effects are mainly from oceanic effects (El Niño, westerlies and upwelling), whereas in winter (April through September) local effects of increased river flow become more important.

“Essentially we are using the past to predict the future,” says James. Initially predictions are limited to a three-month horizon but with some indications for up to a year also being provided from ENSO predictions.

And his forecast for the 2016/17 summer?

“The predictions are that we are now heading more into a possibly weak La Nina/neutral pattern; if it coincides with more easterly winds then conditions may not be as good as they were last summer for good mussel growth.”

James says monitoring of yield and condition is critical over the final two years of the project to assess if the predictions are correct and allow the mussel industry to respond.

MFA's President Jonathan Large says a website developed and hosted by NIWA as part of this SIL project will allow members to go on-line and check yield predictions. “MFA supported this project because we will all benefit from being able to better plan seeding, harvest and processing.”

SIL's Mike Mandeno says the mussel growth prediction project fits neatly into SIL's objectives.

“What we are really looking for is projects where new research or technology will deliver significant benefits and there is a clear pathway for translating the science into business benefits.” 

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Economic review

of the seafood industry - to September 2016

Welcome to the latest update on the economic performance of New Zealand seafood. This edition provides provisional data for the year-to-date to September 2016.

IN THIS EDITION

- China, United States and Australia are the top three seafood export partners.
- Spain became the fifth largest export market.
- Rock lobster is the main product export to China.
- There was a two percent decrease in the export earnings of all New Zealand's commodities.

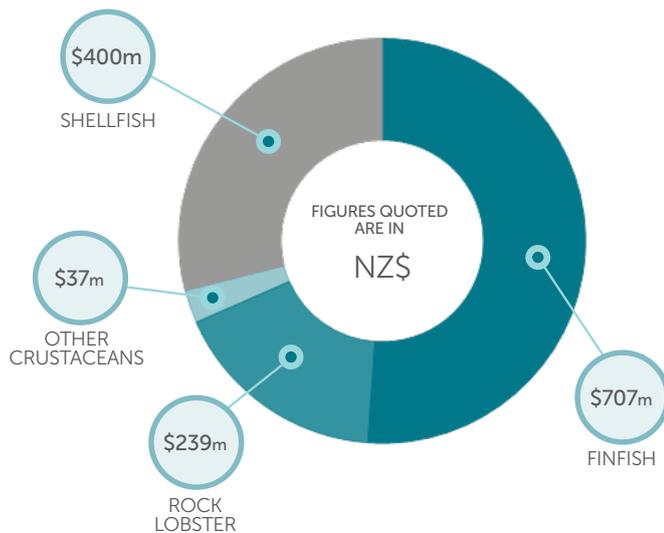
EXPORT STATISTICS

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 year-to-date to September 2016.

Seafood exports to the end of September 2016 totalled NZ\$1,383mil with more than 227,075 tonnes exported.

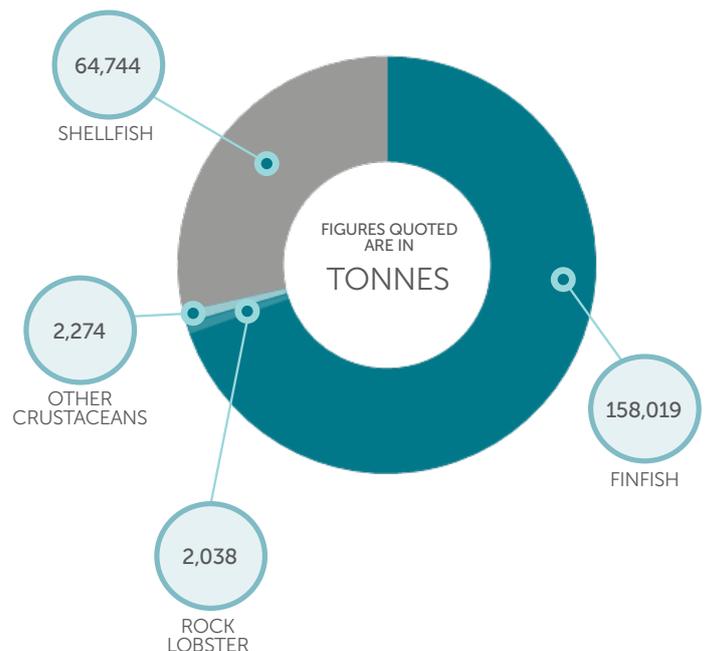
Export value (2016) = NZ\$1,383m



EXPORT TONNES

Finfish species accounted for 70 percent of export volume with shellfish accounting for 29 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 (YTD 2016) = 227,075 tonnes

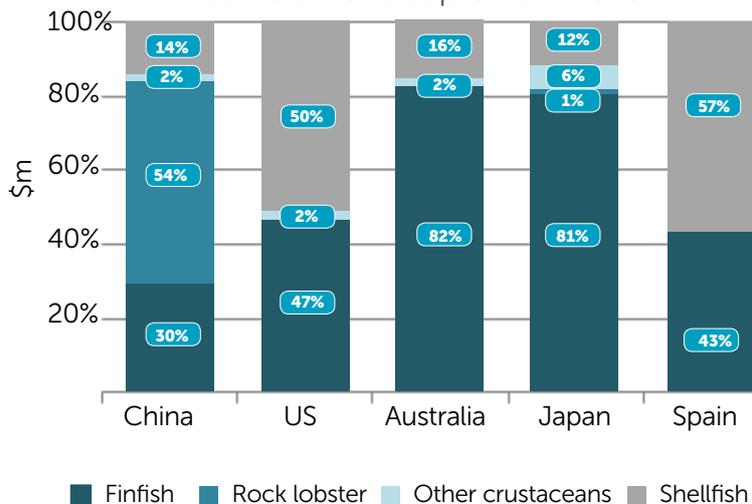


EXPORTS BY COUNTRY

China, United States and Australia maintain the top three positions as our key seafood export partners. Exports to Spain increased pushing it up to the fifth largest export market.

The graph below shows diversity in the mix of products for the top five¹ export countries. Rock Lobster continues to be the main product exported to China. We have seen a significant increase in the volume of seafood being exported to Spain. The total volume is up approximately 60% with the biggest increases coming from Greenshell Mussels, with a 45% increase in volume and the volume of squid, going from 458 tonne to 5032 tonne.

Composition of exports to Top 5 Trading Partners - Year to date to September 2016



TOP 10 EXPORT VALUES (NZ\$)	2015	2016	% Change
1 China	\$376m	\$438m	▲ 14
2 United States	\$155m	\$189m	▲ 18
3 Australia	\$161m	\$184m	▲ 13
4 Japan	\$85m	\$92m	▲ 8
5 Spain	\$31m	\$46m	▲ 33
6 Hong Kong	\$50m	\$43m	▼ 16
7 South Korea	\$35m	\$38m	▲ 8
8 Poland	\$15m	\$29m	▲ 48
9 Germany	\$22m	\$29m	▲ 24
10 Thailand	\$22m	\$28m	▲ 21

EXPORTS BY SPECIES

There have been significant increases in exports of squid (63%) and Antarctic toothfish (35%).

Rock lobster exports have decreased significantly, however it still remains the highest earning export species.

TOP 10 EXPORT VALUES (NZ\$)	2015	2016	% Change
Rock lobster	\$305m	\$239m	▼ 28
Mussels	\$224m	\$210m	▼ 7
Hoki	\$208m	\$175m	▼ 19
Squid	\$41m	\$112m	▲ 63
Orange roughy	\$53m	\$49m	▼ 8
Salmon, Pacific	\$47m	\$44m	▼ 7
Jack mackerel	\$64m	\$41m	▼ 56
Ling	\$48m	\$38m	▼ 26
Crustaceans & molluscs	\$37m	\$37m	0
Antarctic toothfish	\$17m	\$26m	▲ 35

EXPORTS OF MAIN COMMODITIES

Exports of main commodities for the 12 months ended September 2016 saw fish, crustaceans and molluscs increase by 11% on the previous 12 month period.

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

NZ EXPORTS OF MAIN COMMODITIES (NZ\$)	2014/15	2015/16	% Change
Milk powder, butter & cheese	11,813m	10,931m	▼ 8
Meat & edible offal	6,681m	6,241m	▼ 7
Logs, wood & wood articles	3,560m	4,030m	▲ 12
Fruit	2,251m	2,658m	▲ 15
Mechanical machinery & equipment	1,709m	1,663m	▼ 3
Fish, crustaceans & molluscs	1,434m	1,614m	▲ 11
Wine	1,466m	1,589m	▲ 8
Total exports	28,914	28,726	▼ 1

Source: Export data, Statistics NZ.
¹Based on 2016 provisional export figures from Statistics NZ.

Source: Overseas merchandise trade, September 2016, Statistics NZ.



Drew Hikuwai and Steve Jones on board Ana next to the new design sorting and grading table.

“Just seeing the quality of the fish that came up and the way the undersized fish were swimming away, it was quite exciting really”

Science and experience - a winning combination

Debbie Hannan

For the past four years the Precision Seafood Harvesting (PSH) programme has combined the skills of scientists, fishermen, managers and marketing executives to develop and test a range of innovative fishing technologies.

Now with just over two years remaining in the programme the different concepts are being linked together. In very general terms this will form the complete harvest, handling and distribution chain of the new “Tiaki” seafoods made possible from the PSH technologies. In the near future the team will also include chefs who will provide valuable feedback on the eating qualities of the relaxed-harvest fish that “Tiaki” epitomises.

At the “pointy” end of the development process is the crew from

the Sanford vessel Ana. This vessel has only recently joined the PSH testing fleet whose skippers and crew have gone through a rapid learning process. Their experience is likely to be shared by a growing number of New Zealand skippers and crew (seafood pioneers) as the PSH technologies evolve from R&D prototypes into fully commercial applications.

Skippers Steve Jones and Drew Hikuwai say they went into the trial of the new trawl technology with open minds when they started working with it in December 2015.

The difference with the new technology was immediately obvious after the first 15 – 20 minute tow.

“Just seeing the quality of the fish that came up and the way the undersized fish were swimming away, it was quite exciting really,” says Jones.

“Just seeing the operation - the fact that you’re lifting this fish out of the water in a bag of water. The quality of the fish stood out.”

As the first day went on together with the scientists they experimented with different ways to close the bag.

“And just how we lifted the bag on board, the placement of the splitting

strop so it rolled over correctly, and just little things like that,” Jones says.

While it was difficult adapting to PSH, “it wasn’t out-of-control difficult”.

They made some adaptations and by the end of that first trip they had it all worked out.

While working to perfect their technique, the quality of the fish was always striking, he says.

Fish caught with PSH is of a much higher quality than the best he ever caught with the old technology, Hikuwai says.

Having the Plant & Food Research (PFR) scientists on board helped and they were “really passionate about what they are doing”, says Jones.

Initially they had trouble catching one of their target species, trevally, until they added more length to the bag.

“And then that solved the problem. Just little things, week by week, trip by trip, that changed.”

Meanwhile the PFR scientists were also working on a configuration which, altered the flow of water in the net and the quality of the fish being brought on board. After more discussions between the crew and the PFR scientists, a net with more holes to suit the vessel’s

needs solved the problem.

Being able to communicate directly with the Plant & Food scientists has worked well, Jones says.

"Plant & Food have been fantastic to work with.

"We've got a new grading table that has got a gate on it which folds down and which has got water in it. So the bag will be pulled up the stern, lifted on to the table and the gate is closed. The bag will be popped and then you'll just ease the bag away from the fish. So the fish are always in water when you're bringing them on board and when it's on board on the table.

"That's pulled away and then you have the hatch below a chute that runs down into the fish room. And the guys

will stand there and they're herding the fish down this chute into a slurry tank which has got a great system that's on a hinge that lifts the fish forward and allows the undersized fish to go down through them."

The hard physical work on deck is reduced as opposed to bringing the fish on to the deck and then stacking them into fish bins.

Jones says he gets pleasure from seeing the undersized fish swimming away.

"You know the opportunity's there now for everyone to get on board."

While the system's still not perfect Jones says he wants to see it as perfect as it can be and he's confident that's achievable.

The results of their efforts will be reflected in the prices achieved for fish under the Tiaki brand, he says.

"Bringing the quality up and getting greater value out of what you're bringing in, that for us is a big thing. If you can get two or three tonne of trevally and land it in top quality condition and get so much more for it, that's a good thing.

Being able to land the highest quality seafood to the New Zealand and international markets at the same time as having a minimal impact on the environment is very rewarding, he says.

"So it's a two-sided sword, you're cutting it good in both directions."

Both Jones and Hikuwai are adamant there's no going back to the old gear. 🌊



AUT Vice Chancellor Derek McCormack, AUT Business School's Director of Business Relations and Executive Education Sarah Trotman, Minister for Tertiary Education, Skills and Employment Steven Joyce, CEO Plant and Food Research Peter Landon-Lane and Dean of the AUT Faculty of Business, Economics and Law, Professor Geoff Perry. Photo courtesy: AUT

Supreme win for Plant & Food Research at AUT Excellence in Business Support Awards

Plant & Food Research has won the Supreme Award at the 2016 AUT Business School Excellence in Business Support Awards.

The Crown research institute's Supreme Award is in recognition of its contribution to business support and helping build New Zealand's competitive advantage for the future.

AUT Business School's Julian Kroll, who was among the award evaluators, says Plant & Food Research is a very special New Zealand organisation with more than 80 years' experience in food, horticulture, arable and seafood research.

"Plant & Food Research's commitment to business support sees it working hard to help industries turn their commodity products into premium brands.

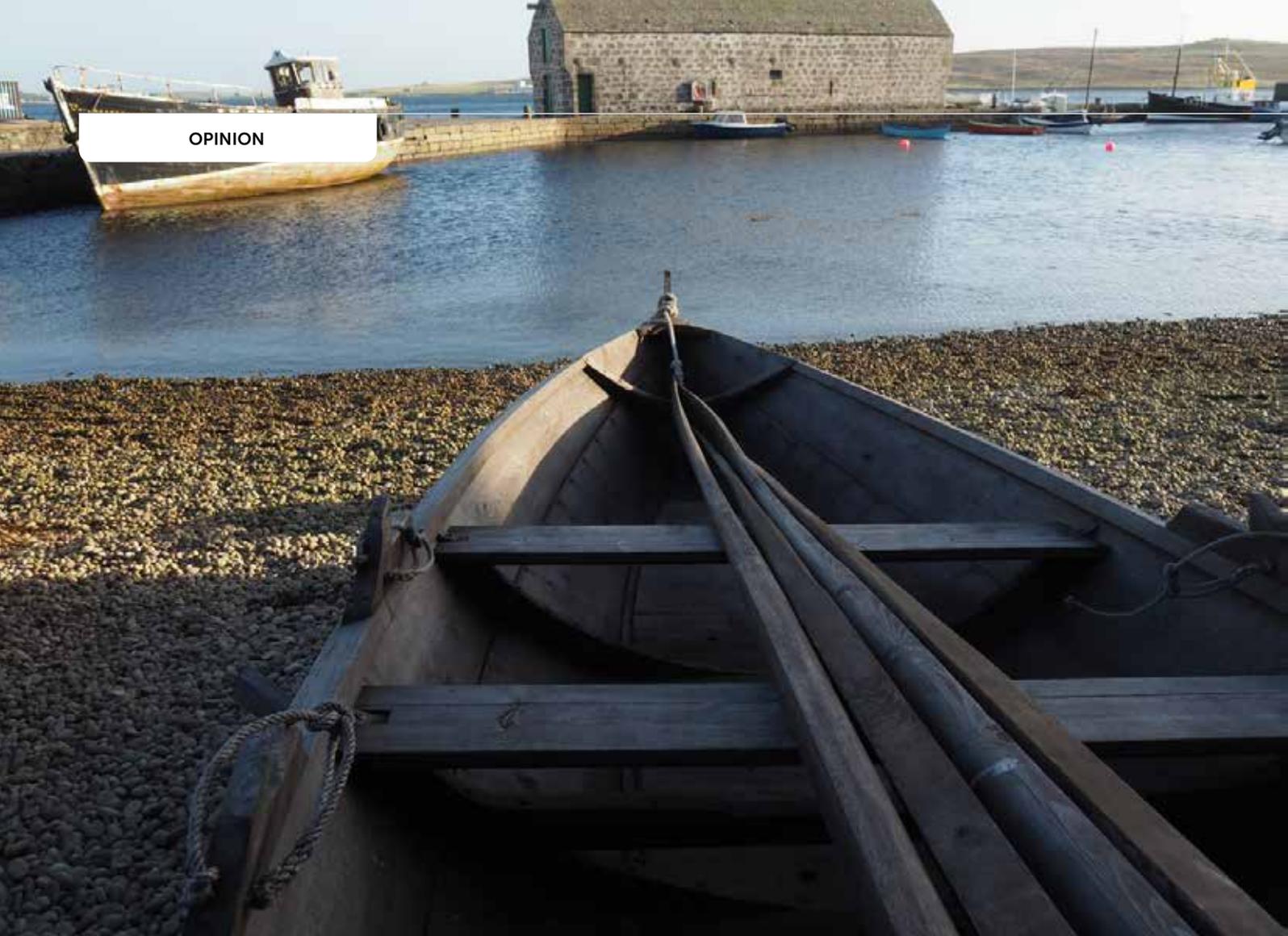
"The impressive working relationships that Plant & Food Research has developed with industry bodies,

growers and farmers sees it delivering world-class research and development solutions to a wide range of private and public enterprises across New Zealand," Kroll says.

Receiving this award is a privilege, and great recognition for everyone at Plant & Food Research, Chief Executive Peter Landon-Lane says.

"Our staff are committed to supporting the New Zealand plant and marine-based food industries, and this award demonstrates the professionalism and skill of our entire Institute."

The Supreme Award was presented by Minister for Tertiary Education, Skills and Employment Steven Joyce at a gala dinner in Auckland that was attended by more than 600 members of the New Zealand business community. 🌊



Old fishing boats at Hay's Dock in Lerwick reflect Shetland's Scandinavian heritage. Image: Nici Gibbs

Successful industry self-management in the Shetlands

Nici Gibbs

If you were standing on the 60°S latitude line south of New Zealand, you'd be shivering in the sub-Antarctic ocean halfway between Campbell Island and Antarctica. But on the other side of the world, the equivalent spot is occupied by Shetland – a mosaic of islands and skerries warmed by the waters of the Gulf Stream.

Located 150 kilometres north of mainland Scotland, the islands are best known for wild coastal scenery and birdlife, oil and gas production, and Fair Isle knitting. Shetland also punches well above its weight in seafood production – its capital Lerwick is the second ranked

port in the UK for fish landings. Wild fisheries and aquaculture account for over 80 percent of Shetland's exports and the seafood industry employs around 20 percent of the workforce.

Of particular interest to the New Zealand seafood sector is the innovative and successful industry self-management regime which has operated in Shetland's inshore shellfish fisheries for the last sixteen years. More than 100 small boats work in these fisheries harvesting scallops, crabs, lobsters and whelks.

Prior to the instigation of self-management, no specific regulatory framework applied apart from the general UK fishing vessel licencing scheme. There were no quotas, no gear restrictions and no limits on effort. The resultant management vacuum led to a steady increase in the number of vessels in the fishery and eventually to stock decline and reductions in earnings for the fishers. In response, the Shetland Fishermen's Association (SFA) began to advocate for a regional

shellfish licencing scheme to control entry to the fishery. When, after many years, it became apparent that the UK Government had no intention of introducing new legislation to address the problem, the SFA turned to existing legislation to achieve local control of the fisheries. They decided to apply for a Regulating Order – a form of delegated authority over specified fisheries – under the UK Sea Fisheries (Shellfish) Act 1967.

The SFA quickly realised they would need to secure community support to make an application on behalf of the wider Shetland community. To that end, in 1996 the Shetland Shellfish Management Organisation (SSMO) was established as a partnership between fishing interests, local government and community councils, fisheries scientists and an environmental organisation. After a lot of public discussion and debate, in March 2000 the new Scottish Parliament established the first Shetland Regulating Order devolving management responsibility to the SSMO.



A fisherman unloads brown crabs at West Burrafirth, Shetland. Image: Nici Gibbs

The Order authorises the SSMO to manage shellfish species within six nautical miles of Shetland's coast. Fisheries access is controlled by limiting the number of licences the SSMO issues to vessel owners. In addition, regulations developed by the SSMO prescribe size limits, closed seasons, vessel length, gear design and configuration, and closed areas to protect vulnerable marine habitats.

Initially, the SSMO was expected to undertake all enforcement actions itself and compliance relied primarily on peer pressure. Shetland industry leader John Goodlad observed that even without any formal enforcement capacity, compliance levels were high because the rules were drawn up by, and administered by, the fishermen and local stakeholders. The regime has evolved over time and today British Sea Fishery Officers employed by government agency Marine Scotland Compliance are responsible for compliance and enforcement.

The original governance structure has

also evolved. These days the SSMO is a legally constituted company run by a board of eight directors, half of whom are active fishermen. The other four directors represent local community interests and shellfish processors. Shetland's North Atlantic Fisheries College provides fisheries and mapping data, as well as stock assessments and advice on the operation of harvest control rules.

The fishermen gained Marine Stewardship Council certification of the brown crab and velvet crab creel fishery and the king scallop dredge fishery in 2012 – the first ever MSC certification of a dredge fishery. The MSC's assessment team endorsed the self-management regime, commenting that "undoubtedly the Regulation Order enables comprehensive fisheries management to be implemented in an effective manner". The success of the regime has enabled the SSMO to renew the original Regulating Order, most recently for a 15-year term from 2013 to 2028.

Although it's tempting to make

direct comparisons between Shetland and New Zealand, the two fisheries management regimes are fundamentally different. While New Zealand's QMS naturally places quota owners in a strong position to manage fisheries responsibly, the dissimilar social, economic and political considerations in the two localities mean that Shetland has been able to advance well beyond New Zealand in industry self-management.

For the New Zealand seafood industry, the main value of Shetland's shellfish management regime is as a successful working example of industry-led fisheries management. Full management responsibility has been devolved to a company governed under an industry/community partnership – and 16 years later the stocks are sustainable, vulnerable marine habitats are protected, the local community is confident that the fisheries are well-managed and the industry remains buoyant and profitable. 🌊



Andrew Hope

Motueka net design combines efficiency with less environmental impact

The fishing industry is constantly innovating with new technology. Motueka Nets has developed a successful net that is more efficient and better for the environment, Chris Carey reports.

Based on a trawl design Andrew Hope of Motueka Nets saw in Eden NSW Australia, 30 years in the making, the "Scraper" trawl is proving to be the net of choice for many inshore fishermen.

It is more fuel efficient and there is less contact with the bottom, says Hope.

"I got hold of a plan or saw a net in Eden, I can't remember which, but they had a problem with ribbon fish so they kept their headline height below 3.5, 4m to avoid catching it. We liked the idea

and Owen Hoggard, our net designer along with Andy Kenton who trialed our first models, fiddled and tutu'd with it and what we have today is the result of that work. And it has evolved considerably since that early design; it's totally different to what it was. A few of our opposition have climbed on the band-wagon with a similar trawl because the Scraper is the one everyone wants to copy," Hope says.

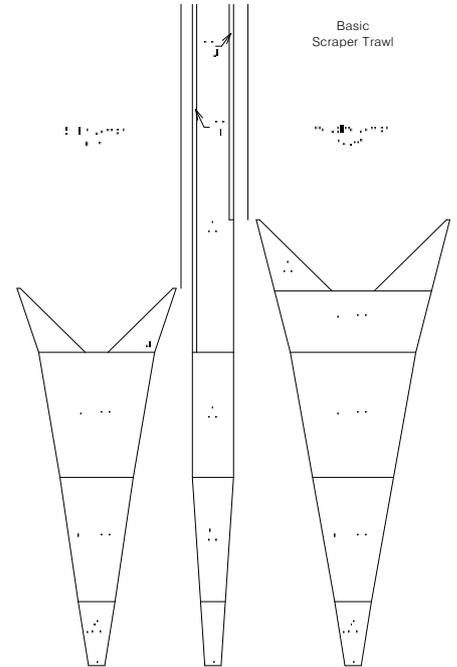
The success of the Scraper trawl lies with its simple and effective design; two-bridle, 4-panel with long wings and a low headline height. Constructed from PE, the top panel and the veranda are 2.5mm with 3mm and 4mm material in the wear areas running 9inch in the sides. Ground ropes are made up of 2½ inch cookies and weights.

Depending on the size of the trawl, headline height varies from 3½ to 4½m.

"Obviously with a bigger trawl you can go higher but we've designed it to keep the headline down because that's how it works."

One modification MotNets made was to how it is slung in the wing.

"The side panel is cut along the side knots, not cut on the square as such, so there is no taper as the wings come out. And that makes it easier to mend."



Schematic drawing of a scraper trawl

MotNets use material from Van Beelen of Holland due to its durability, knot strength and wear characteristics although one or two Scrapers have been made in Dyneema®.

"The biggest trawl we've built has wings out to 210-feet (64m) and we come down to 80-foot," says Hope.

"The beauty of it is for someone running a 90-footer they can tow a 120-foot in a Scraper Trawl. It has become the trawl of choice for most of our inshore guys particularly with tarakihi, gurnard and your general run-of-the-mill inshore species. They're even using it on the ling and Ocean Pioneer had an amazing few weeks on the squid with this trawl. Amatal Mariner is running one on the roughy and they really like it particularly on the flat bottom."

Via email Richard Pollock, owner of Ocean Pioneer and Resolution had this to say: "It's a great trawl and easy to mend too. I use them on both boats, particularly for ground fish."

Stark Bros vessels are using the Scraper trawl. Matt Wells, Skipper of Endeavour told me: "the best feature of the trawl is even when it roughs up; say a 3-4m lift up to 6m, 35 knots or so, it'll still maintain good bottom contact whereas a wing trawl may start

to bounce. There's also less damage to wing ends; you may lose droppers but you'll get through. Maybe for species like warehou a wing trawl may be better in some cases but for an all-round net, the Scraper is a very good trawl."

In total 21 different vessels ranging from 1500hp down to 250hp are towing a version of the Scraper trawl.

Because it is easy to tow, Hope explains how fishermen have also been using it to target faster-swimming fish.

"It's blown us away just how well it works even for high flying fish. The guys using it for scratch fishing out of season would in the past use a high-lift wing trawl but now they're doing everything with this net. Andy Kenton with Bacchante found that being easier to

tow he had more grunt to spare and was mowing down all the faster-swimming trevally he'd normally caught with a high-lift trawl."

Hope can see a huge potential for the Scraper trawl in the deep water fishery.

"I think it's the ideal trawl for 'scratch fishing' outside the season and I'd love to see it in the hoki fishery. In fact, one South Island company is looking at doing just that.

"It's proving to be the net of choice and we're keen to put it out there."

Why a "scraper" trawl? Because of its efficiency.

"We see the need to make trawl nets work as efficiently as possible. We do this with lighter modern materials like

Dyneema® which reduces drag and thus burns less fuel.

"Also this efficiency has several spin-offs, the fish is caught quicker so gets to the market in a better, more pristine condition."

Then there are the environmental benefits, he says.

"I have spoken to individuals in the past who don't like the idea of us making efficient trawls. However, what these people don't realise is that if they are more efficient the trawls are on the bottom less, with less bottom contact which is good for the environment, plus less fuel is burned. Less fuel burned, less pollution, less oil used." ➡

STAFF WANTED

Vessel: Nikko Maru No.I (Deep-Water Pinnacle Trawl Vessel)

- Area of operation: Southern Indian Ocean
- Voyage duration: 75 – 85 days (trip on / trip off rotation)
- Target Species: Alfonsino and Orange Roughy
- Home port: Cape Town, South Africa

Position: Ist Mate Requirements

- Mate of Deep Sea Fishing Vessel ticket, with extensive fishing experience in pinnacle sea mount trawling for deep water species (Alfonsino / Orange Roughy)
- Preference will be given to Master of Deep Sea Fishing Vessel ticket holders
- Valid STCW 95 Auxiliary Courses
- Valid GMDSS Radio Course
- Valid Seafarers Medical
- Valid passport

Position: Factory Manager Requirements

- Extensive knowledge of the factory processing operations of a deep-water trawl vessel
- Experience in fish processing machinery (header and gutting machines, ice plants, conveyors)
- HACCAP trained and qualified
- English Language Skills (written and verbal)
- Computer literacy (MS word, excel, outlook)
- Valid STCW 95 Auxiliary Courses
- Valid Seafarers Medical
- Valid passport
- Experience managing multicultural crew members
- Understanding of the Japanese fish market requirements will be beneficial
- An Indonesian language skill is highly preferential

Please email a copy of your CV (including references) and clearly scanned copies of all listed applicable tickets to: kevin@flantrade.co.za



Shayne Garbes and Janine Rogers outside the North Canterbury Fish Market

Selling the seafood story in rural North Canterbury

What was once a small, rural Kaikoura-based fish delivery service has now grown into a thriving business in Rangiora, north of Christchurch.

North Canterbury Seafood Market co-owner Janine Rogers says their success is down to a mix of "personal values, business ethics, great staff, strong industry knowledge and sheer determination".

Rogers and business partner Shayne Garbes, a fifth generation Kaikoura fisherman, are strong advocates for the seafood industry with their rural inland customers.

The business had its beginnings with Garbes' small rural fish delivery enterprise based out of Kaikoura and a chance meeting between Rogers and Garbes.

"I wanted fresh fish and lived in Waikuku Beach. I bumped into Shayne in Greta Valley after he had been selling fish at the Waipara Valley Farmers market. I asked him down to Waikuku Beach to sell fish outside my home to the residents of Waikuku."

It was a big success, Garbes moved south and they opened the shop two years later.

"The move south for Shayne enabled us to establish a seafood shop in the busy service town of Rangiora, North Canterbury, creating a destination shopping experience for seafood with a fresh fish daily, taste the difference motto.

"We are dedicated to buying the catch from the Lyttelton fleet to ensure

local people are eating local food." Shayne's 22 years of fishing places him in good stead to select the best fish from the Christchurch Fish Market. From there it is transported back to the premises for processing, ensuring care of fish from whole, to fillet, to plate.

"Looking after the fish, keeping it fresh and in a good state from catch to plate is one of our core business practices and a main key to our success in building a regular customer base," says Garbes.

With the shop established, Garbes introduced a smoked fish range. Starting with the basics of a Kiwi Sizzler smoker, he perfected the product, moving to a commercial smoker to meet the growing demand for their smoked products.

"Another string to our bow is the ready to heat-and-eat products, all made on-site. We wanted to capture the market of busy people wanting to eat healthily and there is something really satisfying in knowing that we are contributing to people's health and well-being. The deli is stocked with fishcakes, fish pies, salmon filo, chowders, dressings and sauces to name a few items that rock out the door."

North Canterbury Seafood Market sells at three of the four North Canterbury farmers markets at Ohoka, Waipara Valley and Oxford.

"This offers us the opportunity to be face-to-face with more customers, advertise the shop and also get fish out that bit further afield. It's a down to earth way of selling a product and feels quite nostalgic," Rogers says.

And they are sharing their knowledge with their customers through running "learn to fillet" evenings led by fish filleter Steve Brown.

"This hands-on night is highly informative, entertaining, and with a meal of fish cooked two ways to enjoy as well. We are fortunate to have Steve who has been in the industry for

over 30 years and can easily convey his knowledge and experience to our learners."

Seven-and-a-half years on, and the business is still growing despite the challenges faced as a result of the Canterbury earthquakes and other factors out of their control.

"Weathering the changes brought on by the Canterbury earthquakes, population shifts and the challenges sourcing fish due to weather, available quota, competing with export suppliers and the tragedy of losing a local fishing vessel and crew to a storm that was a key supplier to the Christchurch fish market has been challenging.

"One of the hardest things of being in fish retail is when customers complain about the lack of species or the prices at which we have to sell fish. Customers have been well-trained by supermarkets to expect to buy any given product at any time of the year, so when we have half our usual species available because of factors out of our control they are truly miffed."

Rogers and Garbes say they go to lengths to explain to customers how the fishing industry works and what elements they are up against.

"From this continual effort of educating, true loyalty has grown," Rogers says.

"We are passionate about employing local people and have a great crew on board to help with processing, sales, farmers markets and cooking."

They describe their workforce as their "work family".

"Our shop is 'more than just a fish shop'. It's a place where people know your name, where you have a laugh or an ear if need be and advice is never in short supply when asking about what fish to have and how to cook it. It is a shop based on integrity, service and excellence." 🐟



Grilled tarakihi on hummus with salad

Recipe and image courtesy: North Canterbury Seafood Market

A simple, delicious recipe that makes the most of cupboard ingredients that are at hand. Swap tarakihi for your choice of fish, use your favourite hummus variety, salad ingredients and vinaigrette for interesting meal variations.

Serves 4

Ingredients

600g tarakihi fillets
Salt
Cracked black pepper
Chopped parsley
Orange zest
Oil
Lemon wedges
Hummus - any flavour of your choosing

Salad
Salad leaves of your choice

Red onion, finely sliced
Feta cheese, cubed
Cucumber, deseeded and sliced
Vinaigrette of your choice

Method

1. Heat oven to 170°C.
2. Make enough salad mix to cater for the number of people eating. Mix the salad ingredients together and dress with the vinaigrette.
3. Spoon the hummus onto a plate to

form a base, and place salad on top. Lay the fish fillets on a baking tray, and sprinkle with salt, pepper, orange zest and parsley.

4. Drizzle the oil over the fillets. Place in the oven and cook until just underdone, 8 - 10 minutes.
5. Allow cooking to finish out of the oven. When cooked, place the fish on top of the salad and serve with fresh lemon wedges.

Recreational versus commercial: Are we really so different?

By National Seafood Industry Leadership Program 2016 participants Laura Smith, Paul Jordan and Felipe Henriquez.

In April this year, 18 seafood industry members from around New Zealand and Australia met for the first time in a conference room of a hotel in Darwin.

Amongst us, there were commercial fishers, recreational fishers, scientists, policy managers, and wholesalers, to name a few. A varied group. A cross-section of our broad industry, condensed to 18 individuals selected to participate in the National Seafood Industry Leadership Program (NSILP).

We were tasked with creating a shared group vision and mission for the Australasian seafood industry as a whole. No easy task in a room of representatives of an industry which is diverse and at times divergent in their views and opinions.

So, is it surprising that we all wanted virtually the same things?

Recurrent themes were accessibility, sustainability, responsibility, employment, profitability, life style, longevity and health.

It would be naïve to claim that within our industry there aren't conflicting viewpoints and approaches. We're a diverse bunch. We can put each other's noses out of joint from time to time, there's no denying that. Passion for our industry runs so high, that even the mention of a recreational fisher can get a staunch commercial fisher bristling – and vice versa. But when you boil it down, our goals are awfully similar. Ask any fisher, recreational or commercial, what are their hopes for the future of our seas? And the answer undoubtedly will be that they are full of fish. Healthy.



Zak Olsen

Thriving. And that, of course, translates to abundant fishing opportunities.

NSILP 2016 participant Paul Jordan, a second-generation commercial fisher from King Island, Tasmania, says there is much more to the seafood industry than just fishing and fishermen.

"Having grown up in a fishing family I really hadn't thought much further afield than issues that face us as commercial fishermen," he says.

"(But) the more I listened to everyone's thoughts and ideas, the more I started to realise fishermen, seafood wholesalers, retailers, marine scientists, aquaculturists and even recreational fishers (this one surprised me the most) want the same thing and face similar issues."

Sitting in a room with other future seafood industry leaders, it was great to be reminded that we all seek very similar goals. Be it commercial fisher, recreational fisher, scientist or manager, we all seek to promote and create opportunities and well-being. To be a proud, thriving industry, one without an expiry date, one that looks after our shared marine resources. Let's shift the focus from the differences that drive us apart, to the similarities that could see us working smarter together. Let's work at breaking down the barriers, realising our common goals and banding together to achieve them.

Zak Olsen from Whangarei was this year's New Zealand participant on the programme.

"I want to see a fishery that progresses with the times becoming more socially and environmentally conscious, and I want to be a part in creating that," Olsen says.

A skipper on the Southern Cross alongside Adam Clow, a previous participant, he previously worked for Sanford skippering the San Kaipara as well as crewed on other vessels. Like Clow he has been the recipient of a Seabird Smart Award. The National Seabird Smart Awards are an opportunity to recognise leaders and highlight the efforts being made by the fishing industry to look after New Zealand seabirds.

Olsen has spent most of his time in the industry long lining for snapper, but has also fished with Danish seine trawling, gill netting and drag netting.

The Australian National Seafood Industry Leadership Program is the only national industry specific leadership programme and was initially designed in consultation with the Australian seafood industry. Over 100 participants of all ages and from all sectors of the industry including processing, fishing, extension, exporters, importers, marketing, deckhands and employees have graduated from the programme. 🐟





2016 Aquaculture Conference a success

Adam Hicks, Aquaculture New Zealand

The 2016 New Zealand Aquaculture Conference has received rave reviews from delegates for a seamless three-day programme packed with inspiring speakers, amazing seafood and unparalleled networking opportunities.

Themed “We’re for good” the event focused on creating good business opportunities, producing good food and doing good by local communities and the environment.

Now in its ninth year, the event continues to go from strength to

strength with more than 500 delegates helping make this year’s conference the best yet.

Feedback from delegates praised the “professionalism”, the quality of the food and wide-ranging and engaging presentation topics.

The success of the event was punctuated by the New Zealand Prime Minister John Key who affirmed the Government’s strong support for the industry, with a presentation highlighting its work to help industry realise its goal of doubling revenues by 2025.

The programme also included dedicated research and technical days and examined topics ranging from water

quality, bio-security, feed efficiency, precision breeding, food safety, creating value from by-products, animal health and farming technologies.

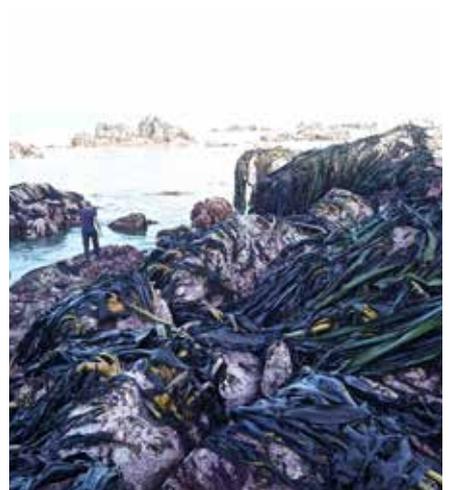
A highlight for many was the cocktail party which gave guests the opportunity to experience live, freshly shucked oysters from six different regions along with salmon from four farming regions – all served with New Zealand’s famed wines.

The 2017 New Zealand Aquaculture Conference will be held from September 19-21. For more information email Aquaculture New Zealand Business Manager Karen Morley. Karen.Morley@aquaculture.org.nz 

Kaikoura quake impacts lobster and paua fisheries

Below are images of how the November 14 earthquake changed the Kaikoura coastline. There will be more on the impact of the quake in the February edition of Seafood.

Images: Trevor Burkhart and Geoff Laing





Your biggest catch could be your worst nightmare

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

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

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

Respect the Cable Protection Zone (CPZ)

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

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

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

Severe Penalties apply – don't jeopardise your livelihood

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

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

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

Alternatively contact 0800 THE GRID or 0800 843 4743.

Catch fish... not cables

T R A N S P O W E R





Captain Yevgen Lopayko



Chief Officer Oleksandr Isaulov

Sailing with pride under a New Zealand flag

From May 1 this year all foreign charter vessels (FCVs) were required by law to be reflagged to New Zealand for them to continue to operate in New Zealand waters.

The Independent Fisheries Ltd (IFL) vessel *Irvinga*, underwent a major refit and reflagged to New Zealand in late 2013.

Chris Carey talked to the vessel's Master and Chief Officer about their careers which began under the former Soviet Union to working today on a New Zealand-flagged vessel.

Foreign vessels have been fishing our waters for decades. Catch magazine reported sightings as far back as 1974 and credited Soviet vessels with the first commercial catches of orange roughy

and oreo dories.

However it took the *Kiwi* expansion into the deep water before contact became routine. In the early days each "side" was somewhat suspicious of the other and contact between vessels was minimal - brief exchanges via VHF. So what of the people behind that gruff accent?

Sailing on *Irvinga* to the Southern Ocean gave me the opportunity to meet two of those "voices".

Captain Yevgen "Johna" Lopayko grew up in Sevastopol, a city with a maritime history dating back thousands of years.

"The whole town is about the sea" Lopayko explained.

With his father a chief trawl master on vessels working the Antarctic, Pacific and Atlantic oceans, going to sea was a no-brainer.

Completing five and-a-half years of study at the High Marine School of Murmansk, which included 18 months of sea time or "praktik" aboard a wide range of sailing, fishing and commercial

vessels, Lopayko graduated aged 25 with a Diploma in Maritime Education (effectively the theory of a Foreign Going Master). However he faced a further year of practical experience as a seaman (AB) of which six months must be spent on the bridge to gain a "Working Diploma" allowing him to sail as a 4th Mate.

Under the former Soviet Union, graduates had no say in what arm of the maritime services they were to work in; "pressed into service" in the navy, merchant or fishing fleets. With the dissolution of the Soviet Union, or "broken" as Lopayko describes it, he had a choice. He chose fishing with the *Atlantika* State Fishing Company fleet in Sevastopol.

Lopayko sailed on the *Grigori Kofton*, a BAT-M class trawler fishing for krill in Antarctica. Docking in Montevideo at the end of the voyage, the vessel was laid up and with no money and no prospects he headed home to Sevastopol.

A friend from his college days found

him a job in Surinam.

The 54m United States flagged Erin Bruce was a twin-rigger fishing for scallops, oysters and mussels out of Montevideo and Mar Del Plata. There were 19 Russian seamen on board with an American captain.

That all changed when vessel Erin Bruce, forced by the Argentinian government to reflag, took on 50 locals. When a crew member was drowned after being knocked over the side while clearing a set of crossed doors and with his contract coming to an end, Lopayko flew home, broke, with no prospects and deeply saddened by the loss of his friend.

After a period watch-keeping on vessels laid up in Sevastopol, Lopayko eventually found work as a 4th Mate fishing for mackerel and sardines off Mauritania. Under the Russian system Lopayko would have to complete a further 12 to 14 months sea time combined with a written recommendation from his current Master in order to gain promotion.

In November 1997 and recently promoted to 3rd Officer, Lopayko joined the newly built BAT-M Class vessel Aleksandr Buryachenko fishing for jack mackerel off Namibia. One trip later they arrived in Nelson under a joint venture agreement with Sealord.

In 2011 when the Master of Aleksandr Buryachenko took extended leave, Lopayko stepped up as relief Master. A second relief job soon followed on Aleksey Slobodchikov and it was there that Lopayko and his Chief Officer Isaulov formed the bonds of a formidable team.

So how long does Lopayko (47) intend to keep fishing?

Back home in Russia, his wife Natalia is a local government accountant. Their 15-year-old daughter, who wants to be a diplomatic interpreter, is studying at

the Moscow Institute of International Languages. The Russian retirement age is 60, but Lopayko thinks he will need to work longer to pay for his seven year-old boy's university education.

Seated at the fishing console, Chief Officer Oleksandr "Sasha" Isaulov is eating frozen berries from a coffee mug.

"In 16 years I have never eaten fresh berries. I come here in winter and I go home for winter. I have many trees at my house - cherry, apricot, apple, pear and plum but sometimes I never eat fresh fruits."

His wife preserves them for him. Isaulov, his wife Svetlana, and their two daughters live in Dniprorudne, Ukraine.

His family find it hard coping with him being away for six months of the year, but they come from seafaring families and have grown up with the separation.

Leaving school Isaulov worked as a driving instructor, about as far removed from fishing as you could get. With the breakup of the Soviet Union seven years later that all changed. He was forced to do whatever he could to keep the wolf from the door; driving, farm labourer, grass cutting, selling firewood, in fact anything to earn an income.

"Wages were very poor but my family needed food for their stomachs. It was very hard."

Isaulov's father-in-law was the Master of an 82m Atlantik Class trawler fishing the Louisville Ridge for orange roughy and so it was that in 2000, Sasha flew to New Zealand and joined Sapun Gora as a freezer man.

When the opportunity arose for a delivery crew on Professor M Alexandrov, Isaulov grabbed it. However a future as a factory hand wasn't an option so for the next three years during his rostered time at home Sasha studied at the Morskiy Koledzh KhDMA, the State Marine Academy in Kherson, a major centre of ship building

on the Black Sea.

"It was very hard for my family but I wanted a good life for them so it is what I had to do."

The hard work and sacrifice eventually paid off when he was offered the position as Navigator on the BAT-M, Aleksey Slobodchikov, a charter-vessel fishing for Maruha of Auckland.

It took a further 10 years of graft before Isaulov was rewarded with a chief officer's position. In 2013, Isaulov flew to Gran Canaria where Irvinga was laid up in Las Palmas awaiting a pre-purchase inspection, before sailing on her delivery trip to Lyttelton.

"It was a big, but interesting job to rebuild a ship for a New Zealand company, says Isaulov. "I remember Irvinga in Africa; dirty, rusty, no good condition but now I am Chief Officer on a very good New Zealand fishing ship."

Both Lopayko and Isaulov have confidence for the future.

"For me this is a good system," says Isaulov. "If your vessel is [owned] by other country, then maybe a difficult situation for seaman but we have much support with IFL. Irvinga, you look, she is a very good vessel now don't you think?"

Taking ownership of her "make over", working closely with a number of local contractors, Lopayko's and Isaulov's input into the refit of Irvinga was pivotal to its success. Three years down the track flying a New Zealand flag and in MOSS, her ship-shape condition and the enthusiasm with which her crew carry out their roles reflects the sense of "ownership" they have with the vessel.

During a recent vessel inspection, the vessel's surveyor commented that Lopayko and Isaulov were two of the most professional officers he has worked with and to see the pride they take in their vessel was a breath of fresh air. 🌊

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