

DECEMBER 2023 NEWSLETTER

Contents

GM's Comment	1
AQNZ export data	4
TOS biosecurity partnership	5
Young Fish nets a year of gains	6
Sweet solutions for age-old problem	9
Andy Jordan scholarship 2023	11
Floats become posts with new MFA partner	13
Kina removal shows promising outcomes	16
Repurposed to re-loved	20
Smart+Connected 2.0 taking shape	22
Barbie's role in the mussel socking revolution	24
Global award for Mussel Mania video	31
Mussel reef restoration update	33
FirstMate - Helping those in need	35
Assessing marine pollutants, climate change and mussel settlement in the Marlborough Sounds	38
The Better Beaches Project - 1 year on	43
Skipper NZ funding	46
King Shag reminder for summer	49



PAGE 38



PAGE 13

The MFA team would like to wish everybody a safe and enjoyable holiday season.

Our office will be closed from 22 December until 8 January.

We look forward to seeing you all next year!

GM's Comment

It would be remiss to open this GM's Comment without acknowledging the tough spat season we are currently experiencing on Te Oneroa-a-Tōhe /90 Mile Beach. Spat shortages are front of mind for all mussel growers at present as we eagerly await some favorable conditions on the beach. The MFA Team wish all growers well with whatever initiatives are underway to make the most of what is available/already seeded.

At the time of writing, we are still awaiting the coalition announcement that will allow the formation of New Zealand's 54th Parliament. We know that aquaculture has bipartisan support, but despite this backing and a dedicated strategy, a truly enabling regulatory environment has proved elusive. We can only hope that a government looking to rein in spending and boost New Zealand's productivity will recognize the opportunity for sustainable growth offered by aquaculture.

This week brought some positive news on the inflation front, with data from Stats NZ showing some commodity prices falling. These 'downside risks' will no doubt be picked apart and prophesied over by economists but should also give the Reserve Bank confidence that the OCR can remain at 5.5%, bringing this hiking cycle to an end. We look forward to this flowing through to the cost of living and doing business.

According to the NIWA data El Niño has officially arrived. Here in the top of the South, the northwest patterns we would typically associate with El Niño are yet to arrive, with an assortment of easterly and southerly patterns still prevalent. The forecast through to December is for dramatic air temperature swings and above average wind speeds. Water temps are reported to be above average, but not yet approaching the marine heatwave levels we have become accustomed to in recent years. The full NIWA Climate Outlook can be found [here](#).

It is pleasing to see that pricing and demand remains high for all three species, with export revenue up 32% for mussels, 12% for salmon and 7% for oysters when compared with the previous year (November 2021 – October 2022).

There is not a lot to report on the MEP front, with only evidence exchange for the coastal occupation charges topic, and some informal mediation on Variation 1 matters planned for the remainder of 2023. Next year will likely see hearings on both

the coastal occupation charge and King Shag topics, along with the Variation 2 Ecologically Significant Marine Sites (ESMS). Formal mediation on Variation 1 matters is expected to begin in Q2 2024.

We now have a contract in place with the Sustainable Food and Fibre Futures (SFFF) Fund for another 2 years of mussel restoration research. This second project builds on the success and learnings of the Pelorus Mussel Restoration Project which ran from 2019 to 2022. Along with extending restoration efforts to Delaware Bay and Golden Bay, this project will also focus on identifying spat recruitment bottlenecks and documenting the ecological benefits associated with returning mussel shells to the seafloor.

As this is the last Newsletter of 2023, now is the time to wish all our readers a safe and happy Christmas. At times being a part of the aquaculture industry feels very similar to being a Warriors fan – if the spat arrives, the water temps remain stable, markets hold up and the new Government develops some enabling policy – 2024 could well be our year!

All the best, Ned.



ALEXANDER HAYWARD
LIMITED

**Registered Valuers,
Property Consultants, Arbitrators.**

Specialising in all aspects of Marine Farm
Valuation including
**Processing, Shore Bases,
Specialist Plant and Machinery**

**Experienced in all
NZ Aquaculture Regions**

CONTACT **Lex Hayward** dip VFM, FNZPI, AAMINZ

Phone: **03 578 9776**
Level 1 - 20 Market Street
Blenheim
Fax: 03 578 2806
email: valuations@alexhayward.co.nz

Marine Farm Compliance Audit Programme

Declarations are Due
31st January 2024

If you have not sent in your declaration
for the 1st quarter,
please do so as soon as possible



ONE DECLARATION FORM PER SITE
DUE BY THE END OF EACH PERIOD

November, December, January	(1)
February, March, April	(2)
May, June, July	(3)
August, September, October	(4)

Celebrating **20** Years

havelock mussel and seafood festival'24



16 MARCH 2024 / 10AM-6PM
MARLBOROUGH



HOLLIE SMITH
LOST TRIBE AOTEAROA
Chef **ZENNON WIJLENS**

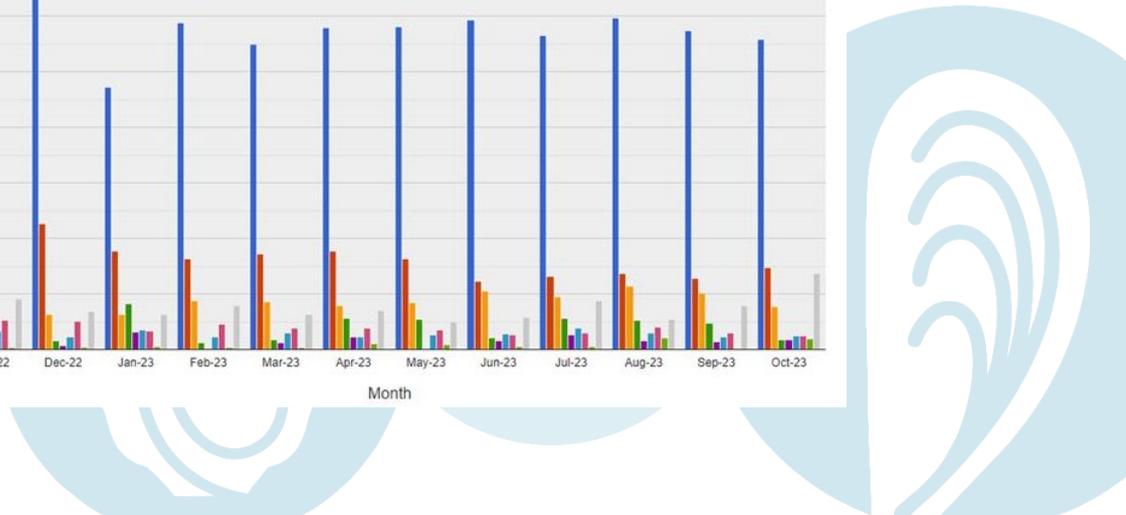
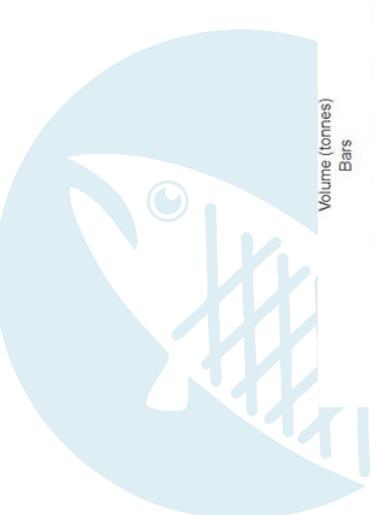
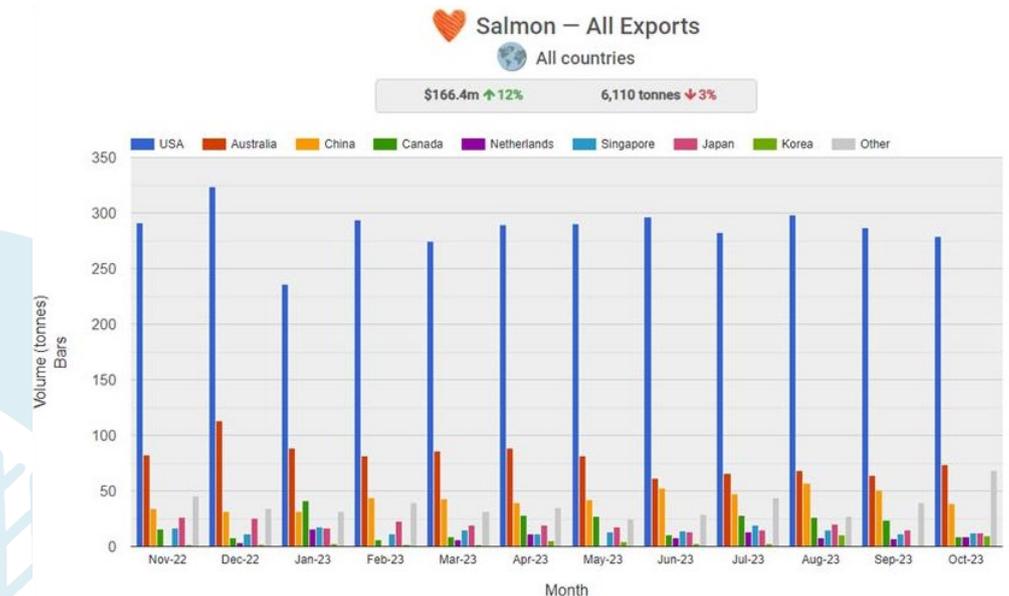
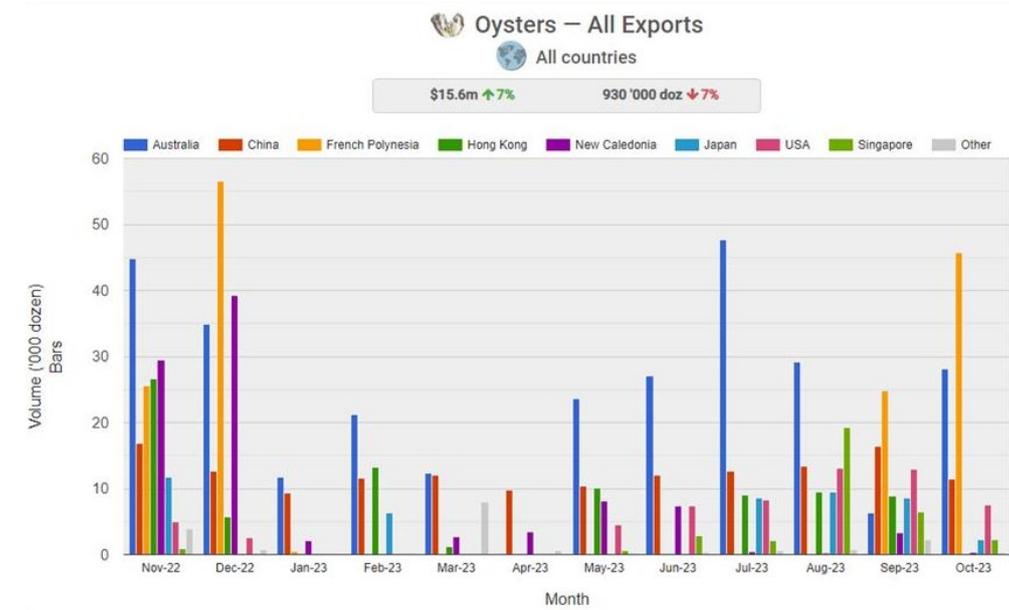
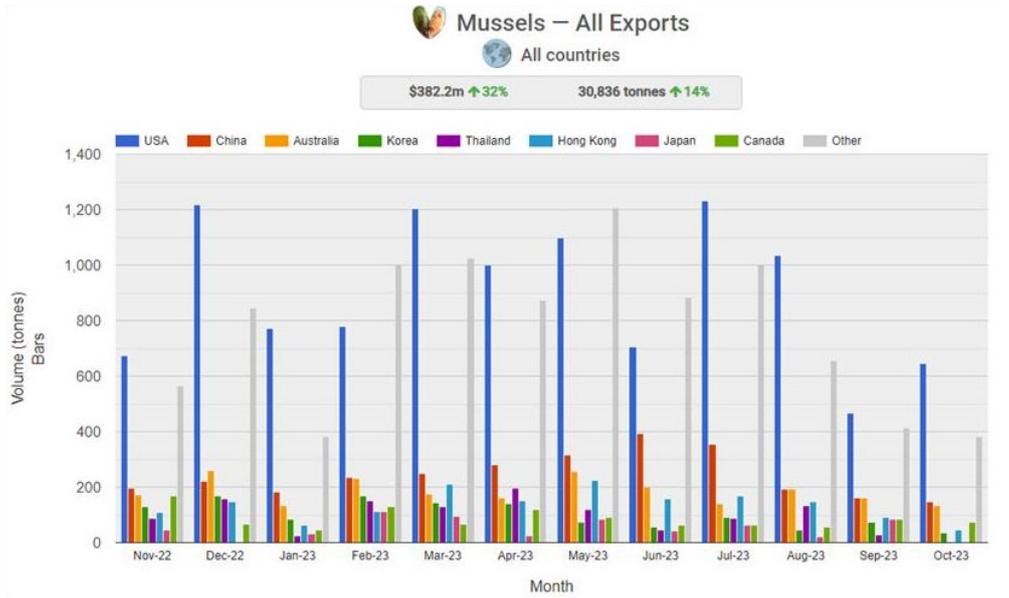
**BRAD STALEY, NIWA KIDS ZONE,
FRESH SEAFOOD & MORE**

Tickets:

www.havelockmusselfestival.co.nz



AQNZ Export Data



Top of the South Marine Biosecurity Partnership update

After 14 years the TOS Marine Biosecurity Partnership has decided to go with new contractors for the coordination role.

We have really enjoyed working with the marine farming industry over the time we were facilitating development of marine biosecurity in Te Tau Ihu.

The development of environmental standards and procedures for marine biosecurity by the industry has been impressive.

From our side, more remains to be done to finish eradicating fanworm and preventing the introduction of new pests such as Caulerpa.

Please keep active in the Partnership to protect your industry.

We wish you well, so long, and thanks for all the fish.

Peter, Charmayne, Barrie and Tom.



robertson
environmental

OUR SERVICES



Ecological
Assessment



Compliance
Monitoring



Habitat
Mapping



Dr Ben Robertson

P: 027 823 8665

E: ben.robertson@robertsonenviro.co.nz

www.robertsonenvironmental.co.nz

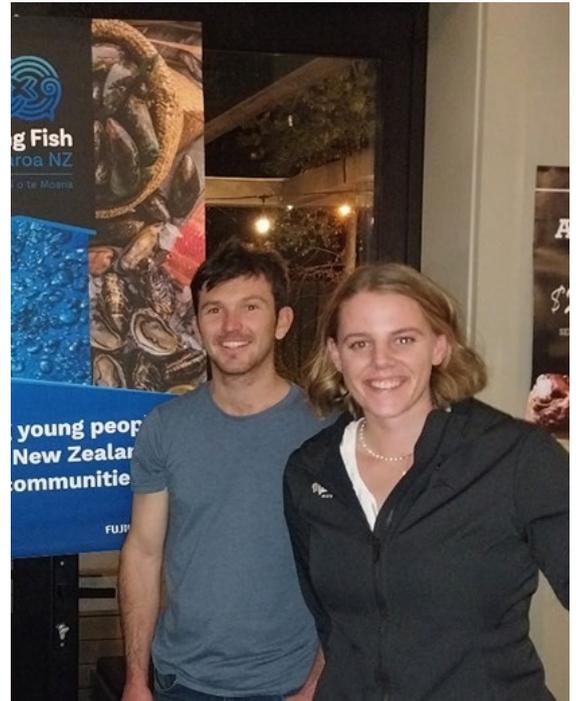
Young Fish nets a year of gains

Young Fish Aotearoa NZ was formed to provide networking opportunities for young people (under 35) working in the seafood industry and has proved itself to be more than just a bunch of whippersnappers.

After noticing a lack of youth connection in the industry, Ben Pierce, Josh Wyber, and Maegen Blom co-founded the group. The past year has proven to be successful for the group. In October, over 40 members convened at Moananui's blue economy cluster headquarters during the 2023 Aquaculture NZ conference to commemorate the one-year milestone.

"We started with the creation of the Young Fish branding, our website, and our social media to provide a recognisable platform to grow the network and gain some traction.

"Since then, it's all been a blur! We've hosted eight networking events across the country, from Twizel to Auckland, attended careers days and spoken to Marlborough Boys College. Along the way, we've amassed a network of more than 140 people and counting, with a diverse mix of fishers, marine farmers, foodies, scientists, lawyers and students. It's this diversity of connections where I believe the true value of our work is found."

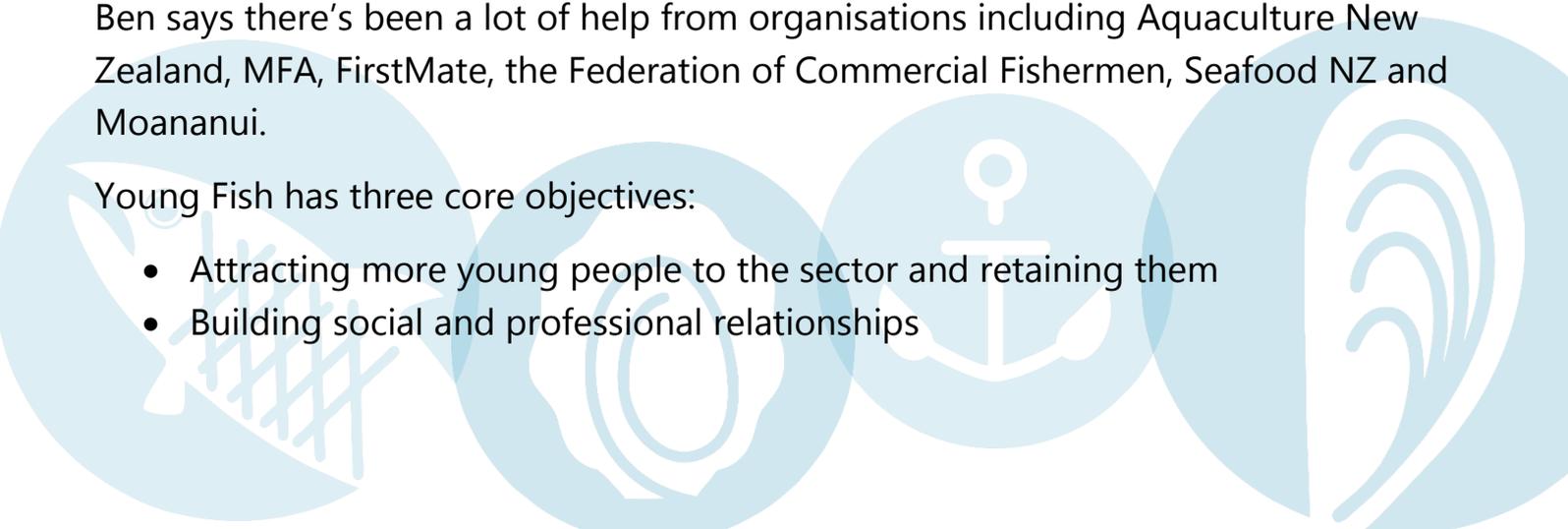


The goal is to build up strong cultures in coastal and aquaculture towns while building future leaders, recruiting, and retaining people, and identifying and developing leadership talent in the industry.

Ben says there's been a lot of help from organisations including Aquaculture New Zealand, MFA, FirstMate, the Federation of Commercial Fishermen, Seafood NZ and Moananui.

Young Fish has three core objectives:

- Attracting more young people to the sector and retaining them
- Building social and professional relationships



- Developing our young people to help them progress their careers in the seafood sector.

“To do this we’ll be attending public events, universities and schools, and we’ll be further developing our social media presence, to share our stories and raise awareness of the opportunities in our sector.”

More regional Young Fish events are planned, and development opportunities will be identified in areas such as maritime training, leadership training, and skills development.

“We will be pulling together a small committee to help deliver these outcomes, so stay tuned as this could be a great opportunity for the young people in your organisation.

“Young Fish is open to anyone, you don’t have to be working in the industry, just generally interested.” Pierce said.



Ben says the most rewarding part of the Young Fish journey so far for him is seeing his peers reach out to share just how much Young Fish has helped them and watching them grow in their own careers.

Ben was recently recognised for his contribution to the New Zealand seafood industry being named a finalist in the future leader category of the

NZ Seafood Sustainability Awards.

While studying at Lincoln University for a Bachelor of Commerce, Ben was a yardman at Sanford in his study breaks, then a deckhand on the Intrepid from 2020-23 after he completed his degree and further studies in Sustainable Aquaculture.

He’s been doing contract work since, initially at Mills Bay Mussels, more recently with Jono Large at Marine Farm Management Ltd.

He also represents the seafood industry on the Food & Fibre Youth Council, a pan-sector voice relaying youth perspectives across seafood, horticulture, forestry, and farming to decision-makers.

Ben says there's room for aquaculture to grow as the industry is young and has room for development and innovation.



To join Young Fish NZ, please go to: www.youngfish.co.nz/join-young-fish/ or reach out to Ben and the team via email: hello@youngfish.co.nz



AQUACULTURE DIRECT

Aquaculture Direct believes that New Zealand can benefit from the economic, cultural and environmental opportunities that sustainably managed aquaculture can deliver.

Our dedicated team of specialists have extensive experience over all aspects of the aquaculture industry - advising and supporting government, councils, policy makers, iwi, marine farmers, research agencies and new entrants into the industry.

From strategic planning, feasibility studies and resource consents, through to marine farm development, monitoring and compliance requirements, we provide a comprehensive consultancy service for the aquaculture industry in New Zealand. We provide pragmatic aquaculture expertise to support innovation, collaboration and new investment into this exciting sector.



We are Aquaculture Direct.

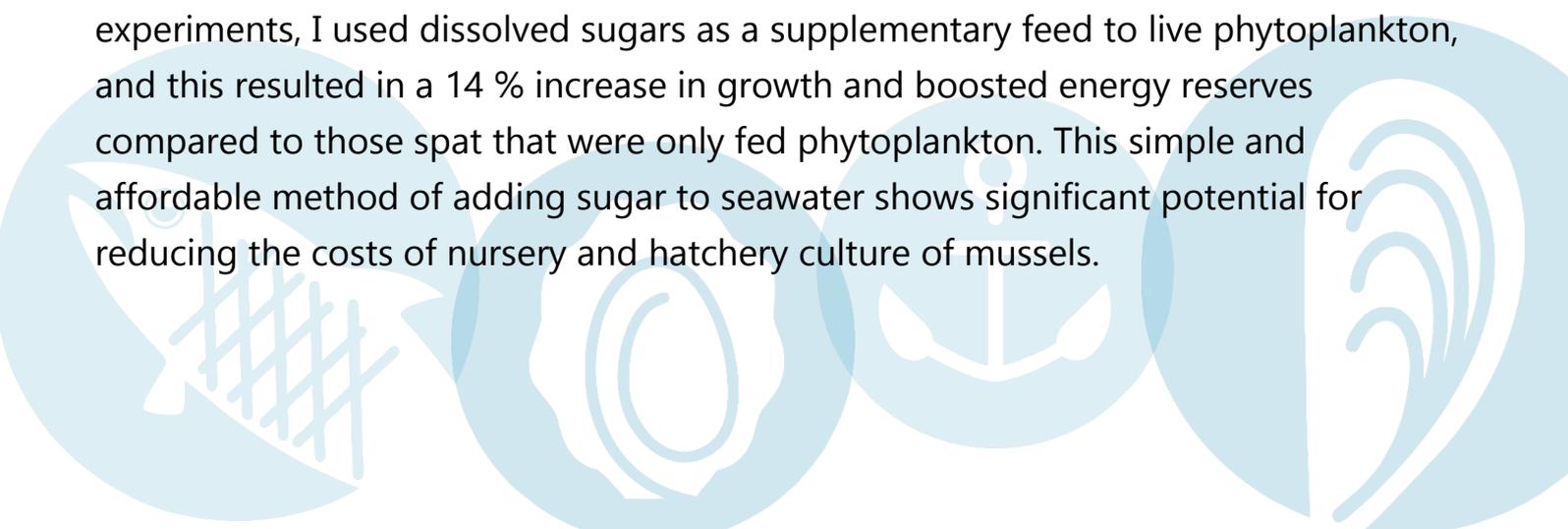
bruce@aquaculturedirect.co.nz | aquaculturedirect.co.nz

Sweet solution for an age-old problem: Exploring alternative feeds for Greenshell™ mussel spat

The sustainable growth of New Zealand's farmed Greenshell™ mussel industry faces two significant challenges. The first is ensuring a year-round supply of high-quality seed mussels to farms, and the second is reducing spat losses during grow-out. The hatchery and nursery culture of juveniles is the most promising way to navigate these issues. Hatchery production of spat enables high-quality spat to be deployed year-round, while nursery culture promotes the seeding of larger spat, which can help to overcome large scale losses of spat from farms.

One of the biggest obstacles preventing our Greenshell™ mussel industry from expanding hatchery and nursery culture is the costly and labour-intensive production of live phytoplankton feed. Attempts to replace live phytoplankton with alternative feeds have had limited success. Current alternatives lack the nutritional value of live feeds, and experimental trials have shown that they often decrease growth and survival rates. In response to this challenge, my PhD project has been focused on exploring cost-effective alternative feed options for the Greenshell™ mussels.

During my research I have found that Greenshell™ spat can efficiently absorb dissolved sugars from seawater and use them to fuel their growth. In my experiments, I used dissolved sugars as a supplementary feed to live phytoplankton, and this resulted in a 14 % increase in growth and boosted energy reserves compared to those spat that were only fed phytoplankton. This simple and affordable method of adding sugar to seawater shows significant potential for reducing the costs of nursery and hatchery culture of mussels.



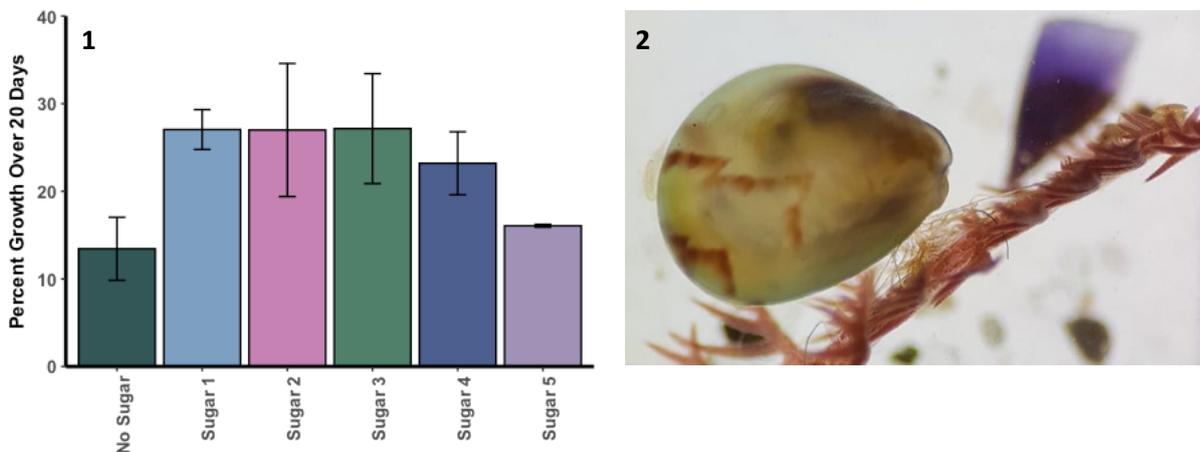


Figure 1. The percent change in the shell length of spat from each of the treatment groups from my sugar feeding experiment. Five different concentrations of dissolved sugar were used to determine the optimum concentration to enhance growth. **Figure 2.** Greenshell mussel spat, *Perna canaliculus*.

Building on this result, I am currently undertaking work to understand if dissolved sugars can be used to improve the nutritional condition of Kaitaia/Te Hiku spat before being seeded onto farms. It is possible that dissolved sugars could play the role of half-time oranges for Kaitaia spat that have typically spent a significant period without any food before they reach mussel farms. Providing these spat with dissolved sugars before deployment may give them the energy to establish successfully on seeded lines, leading to higher spat retention rates.

With just under two years left of my PhD, I look forward to continuing to explore the commercial application of dissolved sugars and experimentally testing other alternative feed options. I hope my work may reduce some of the costs associated with feeding juveniles in hatcheries and nurseries so that the industry can transition to a supply model that yields better results for our mussel farmers.

Andy Jordan, PhD Candidate – The University of Auckland



Congratulations to Andy Jordan

Andy Ritchie Scholarship recipient 2023

Andy Jordan has been recognized for his outstanding contributions with his research project "Performance Enhancing Feeds - Exploring alternative feeds for Greenshell™ mussel spat".

The Andy Ritchie Scholarship fund was established following the passing of marine scientist Andy Ritchie.

The \$5,000 grant is awarded annually. The purpose is to give a small financial boost to existing postgraduate students, whilst supporting research in New Zealand Aquaculture, enabling a better understanding of the environment we operate in, the species farmed, and any environmental impacts associated with marine farming.

Applications are welcome from all New Zealand Postgraduates, through the MFA website.
<https://www.marinefarming.co.nz/allabout-the-andy-ritchie-scholarship-fund/>

Developing your
Marine Farm?
Need a lawyer
who understands
aquaculture?

Call us on
03 578 4229
for the very best
legal advice.

Aquaculture Legal Experts

Quentin Davies and Emma Deason have extensive experience in aquaculture related legal matters, and are available to help you with

- > Resource Consents
- > Aquaculture Law Reform
- > Strategic Planning

Gascoigne Wicks is a full service law firm, so we can help with all your other personal and business legal matters.

Call us now...



Proud supporters of the Marine Farming Association



Quentin Davies



Emma Deason

Maritime Operations

– Skipper Restricted Limits Licence



We are an approved Category 1 training provider by NZQA and an approved training provider by Maritime New Zealand to deliver this training programme for the licence Skipper Restricted Limits. This is essential for potential Skippers of vessels up to 12 metres (or 24 metres with further endorsement), who navigate to a distance of up to 12 nautical miles off the New Zealand coast.

This course combines theory with practical skills to give you the knowledge and skills you need, and is for employment in the maritime transport, tourism and fishing sectors. We also include First Aid, Fire Prevention, Passenger Endorsement and up to 24m vessel size endorsement. It is best suited to those who are already employed in these industries, or about to enter a role.

For 2024 we are going to adhere to our very successful 2023 schedule by offering courses in the Nelson/Marlborough area, and in Te Anau.

For more information check out our website [sisnz.co.nz](https://www.sisnz.co.nz)

Phone 0274 360 116
Email martin@sisnz.co.nz

 **TRAINING &
CONSULTING LTD**
Aviation • Maritime • Seafood

Floats become posts with new MFA partner

The MFA has entered a partnership with Blenheim-based plastic recycler Future Post, providing retired mussel floats for recycling.

MFA President Jono Large says the new arrangement shows the organisation's ongoing commitment to continue lifting the industry's environmental performance.

Jerome Wenzlick, founder, and CEO of Future Post says it's a good example of Kiwi companies keeping things local and working together for the good of the environment.

He says Future Post is diverting thousands of tonnes of plastics heading to landfills nationally and turning them into durable new products, with a new Blenheim factory opened in August 2023.

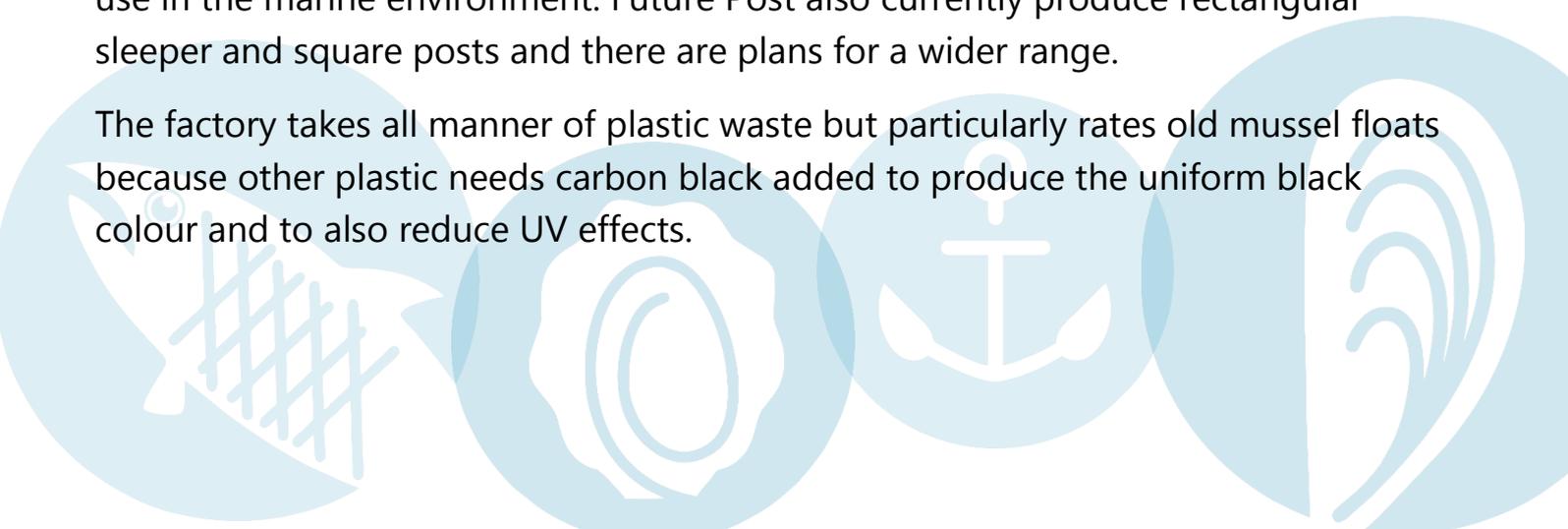
Jono Large, himself a grape grower, says the waste stream from one major Marlborough industry is being used to support another – viticulture.

"We've had 20-40 years use from our floats. It's great to think that the plastic is now going to be used for another 50-100 years."



While Future Post's principal product is fenceposts - many of which are starting to appear in Marlborough vineyards – Jono notes the durable plastic is also suitable for use in the marine environment. Future Post also currently produce rectangular sleeper and square posts and there are plans for a wider range.

The factory takes all manner of plastic waste but particularly rates old mussel floats because other plastic needs carbon black added to produce the uniform black colour and to also reduce UV effects.



The idea for these posts originated when Jerome, a fencer and farmer, discovered that his wooden fenceposts were consistently breaking while attempting to drive them through layers of buried waste plastic in a former landfill. He recognized that by building sturdier fenceposts from waste plastic he could also offer a solution to a bigger environmental problem.

Check out the video made by Future Post and MFA to celebrate the new partnership:

<https://www.futurepost.co.nz/recycling-partners/marine-farming-association>



Marine Farm Management Ltd

MFA Newsletter Stories

Do you have a story you would like to see published in our newsletter?

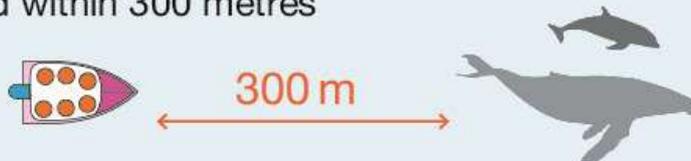
For consideration, please forward it to:

office@marinefarming.co.nz

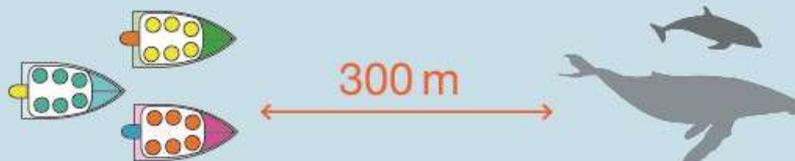
Our newsletter comes out quarterly – March, June, September, and December

Simple rules for boaties when interacting with whales and dolphins

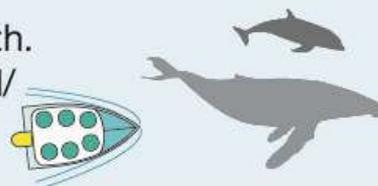
Don't travel faster than idle or 'no wake'
speed within 300 metres



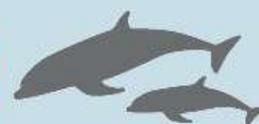
No more than 3 vessels within 300 metres



Do not obstruct their path.
Approach from a parallel/
slightly rear direction



Do not swim with
dolphin pods
containing juveniles



Stay 50 metres away from any
whale or orca



Stay 200 metres away from any
baleen/sperm whale with a calf



Do not swim with
whales or orca



www.doc.govt.nz

New Zealand Government



Department of
Conservation
Te Papa Atawhai

Kina removal shows promising outcomes for kelp forests

A trial in Tōtaranui (Queen Charlotte Sound) has shown that removing kina from kina barrens can lead to the return of kelp and seaweed species.

Kina (*Evechinus chloroticus*) is a sea urchin found in shallow waters around Aotearoa New Zealand. Despite being an endemic species, if populations become out of control then their largely herbivorous diet can lead to kelp forests being entirely eaten away, leaving areas of bare substrate known as kina barrens.

Kina barrens across Tōtaranui (Queen Charlotte Sound) have been part of research undertaken by the [Ecological responses to cumulative effects](#) project, which is bringing together mātauranga Māori and science to develop new knowledge about cumulative effects.

In May 2022, kina were removed from barrens at four locations in Tōtaranui.



Kina removal site locations, with inset image of Meretoto removal area as an example (red line shows urchin removal area). Credit: Nick Shears (University of Auckland).

The aim was to examine the effects of kina on the health of kelp and rimurimu (seaweed) forests in the Sound and to improve our understanding of the potential of kina removal as a tool for kelp recovery. Researchers returned to the study sites every 2-3 months to remove kina that had spread from neighbouring barrens, along with monitoring other environmental parameters such as water temperature and underwater light levels.

Initial findings

One year after the initial removal of kina, the research team returned to Tōtaranui to carry out a survey of the four sites and see what has changed.

What they found was varying degrees of rimurimu recovery across all four sites. The most striking recovery was at Motutara Island, where around 200 giant kelp (*Macrocystis pyrifera*) plants up to 4.5 metres in length were found (Figure 2). Smaller kelp and seaweed species such as *Ecklonia radiata* and *Carpophyllum flexuosum* were also found throughout this removal area.



Kina barren at Motutara Island (left) before removal of kina, and one year after (right) - photo by R Dunmore

The other sites also showed positive signs, with increases of *C. flexuosum* and *C. maschalocarpum* at the Meretoto and Tahuahua sites. The research team was particularly encouraged by the appearance of several young *E. radiata* plants at the Meretoto site, as this species had not been observed there prior to kina removal.

In the nearby control barrens where kina were not removed, rimurimu remained rare and there was no observable change since the first survey in 2022.

While it is still early days, these findings highlight the capacity of different kelp and rimurimu species to naturally colonise areas of kina barrens once kina have been removed.

This mahi is being carried out by researchers from the University of Auckland in partnership with Te Ātiawa, and with support from Marlborough District Council, Port Marlborough and SLR Consulting. The research team are also extremely grateful to James Brodie (Marlborough Commercial Diving Services) and Stuart and Kate (Waikawa Dive Centre) for logistical support, and to the Te Taihū Iwi Fisheries Forum for supporting this research.

Story provided by National Science Challenges Sustainable Seas.

MUSSEL FARMERS

Here at Talley's we are eager to continue expanding our Grower base, as our Shellfish business continues to grow.

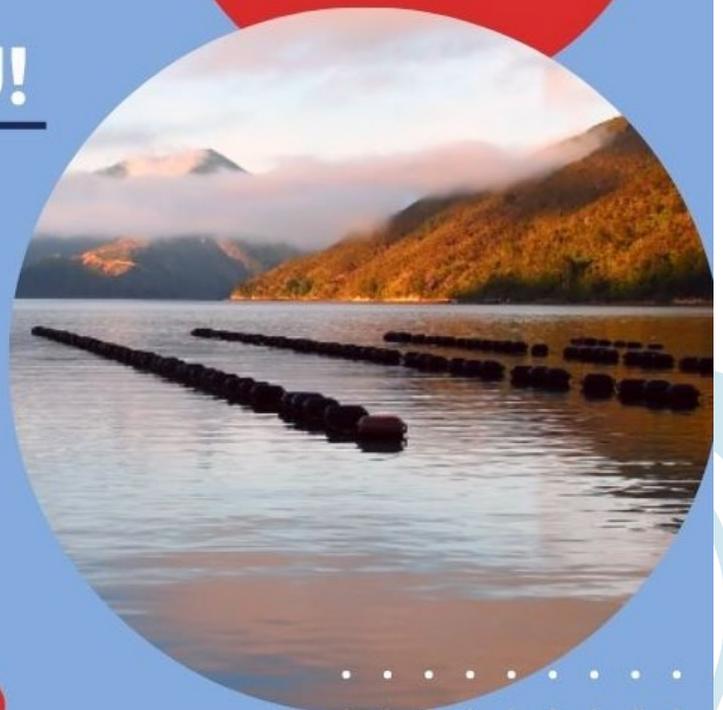
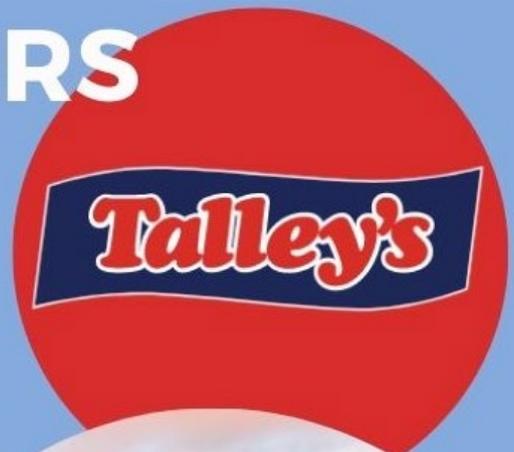
To do this WE WANT YOU!

We offer highly competitive prices across all mussel grades, to process through our factories in Blenheim and Motueka, producing;

- halfshell
- marinate
- meat and
- nutraceuticals products.

If you are interested, please **contact us**

Jordy.Taylor@talleys.co.nz



It's what's beneath the surface that counts.



OCEANLAW NEW ZEALAND

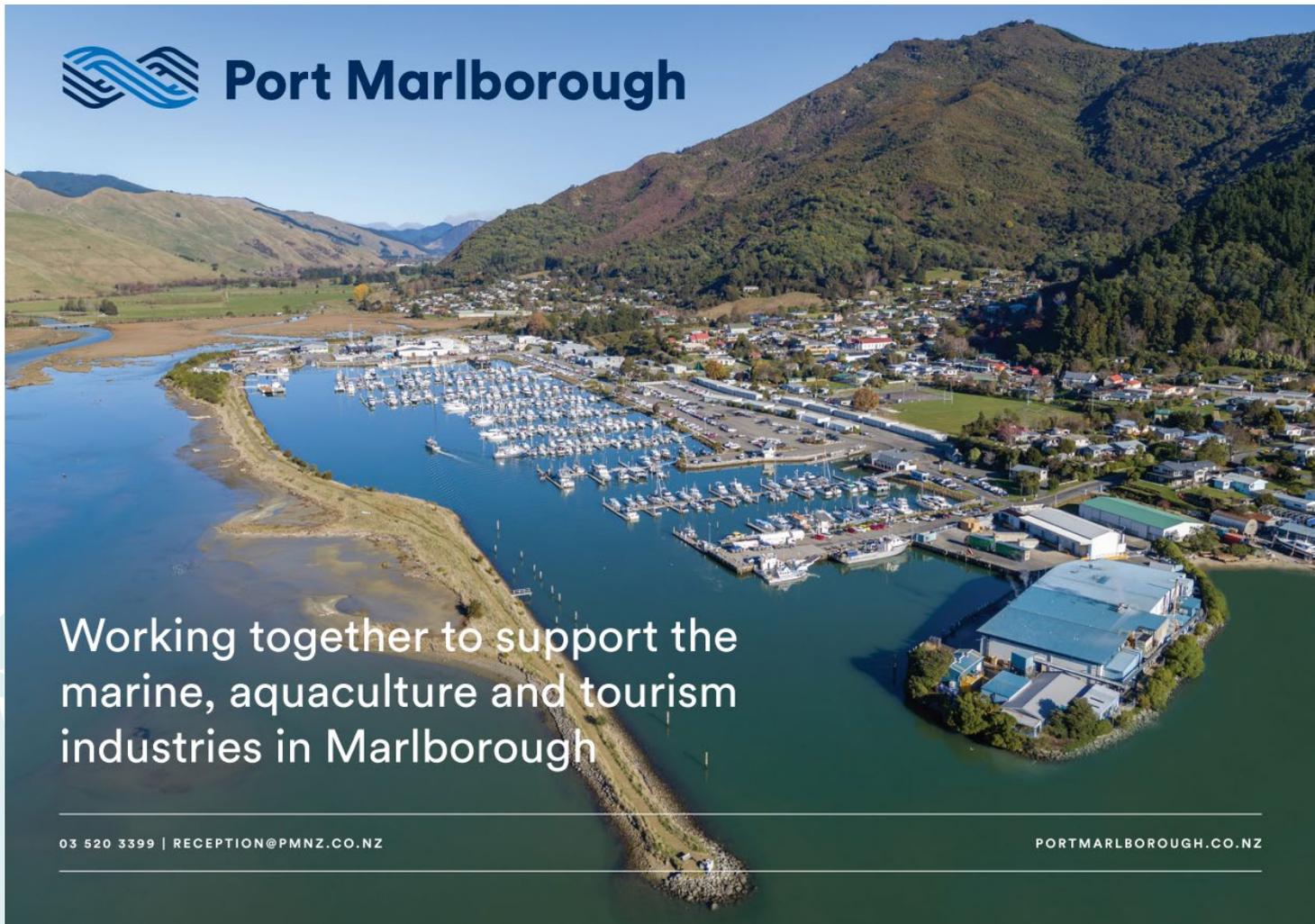
The only law firm in the South Pacific dedicated to the sea



PO Box 921, Nelson 7040 | Freephone 0800 Oceanlaw | www.oceanlaw.co.nz



Port Marlborough



Working together to support the marine, aquaculture and tourism industries in Marlborough

03 520 3399 | RECEPTION@PMNZ.CO.NZ

PORTMARLBOROUGH.CO.NZ

Repurposed to re-loved

In 2018 Mandy received the prestigious MFA Environment Award as well-deserved recognition for her dedicated involvement in numerous beach clean-ups. An added contribution to the nomination was her creation of beach cleanup bags, ingeniously repurposed from unrepairable harvest bags.

After eight years of valuable experience at Sanford's, Mandy found herself grappling with the notion of continuing to work for others. Taking a bold step, she approached Sanford's to become a contractor, enabling her to transition to a work-from-home setup, a decision that brought her immense satisfaction. However, after two successful years of working independently, Sanford's decided to discontinue the repair of their bags.



Fuelled by her passion for crafts and creativity, Mandy began experimentation with mussel lashing, envisioning it sewn together. This led to the crafting of baskets and other unique items using materials collected from her work at the yard.

After successfully crafting beautiful baskets from mussel lashing, Mandy expressed her willingness to incorporate offcuts up to 500mm long from mussel companies, encouraging them to save and contribute their offcuts for repurposing.

Opportunities for growth unfolded when a workshop became available following the relocation of the Rai Valley Fire Brigade. Mandy seized the chance to acquire the vacant building for her workshop, emphasizing the community benefits. Operating on donations to establish and run the workshop, she welcomed contributions from companies and invited them to get in touch.

Operating out of her distinctive workshop, MBM Unique Design, Mandy continues to express her passion for the environment. Her unwavering goal is to demonstrate that with a bit of imagination, anything is possible, and waste doesn't have to be discarded.

Mandy invites interested individuals to explore more photos of her work on the MBM Unique Designs Facebook page:

<https://www.facebook.com/search/top?q=mbm%20unique%20designs>



wk⁺

WK is proud to support the
Marine Farming Association



Talk to WK today about
supporting your business

03 578 0180
www.wk.co.nz

ADVERTISING RATES



1 / 4 Page Advert

Vertical - 87mm x 130mm

Ordinary Members \$25 +GST

Associate / Non Members \$50 +GST



1 / 2 Page Advert

Horizontal - 180mm x 130mm

Ordinary Members \$50 +GST

Associate / Non Members \$100 +GST



Full Page Advert

No boarder - 210mm x 297mm

With boarder - 180mm x 267mm

Ordinary Members \$100 +GST

Associate / Non Members \$200 +GST

Smart+Connected 2.0 taking shape

An update of the Smart+Connected programme is underway at Marlborough District Council of which Aquaculture has been a part since 2016.

At the October meeting of S+C Aquaculture, Council's Economic Development staff Mark Unwin and Dorien Vermaas said Council approval is being sought for a revised model to help different industry groups and collaborations.

They said a lot is happening in the aquaculture sector and the Smart+Connected groups (we are one of five industry groups) have always been a tool for bringing industries, communities, and government together to collaboratively solve issues. Mark is now leading the new Circular Wine Smart+Connected Group so Dorien returns to working with the S+C Aquaculture group – welcome back Dorien.

MDC has already provided substantial support to our group with the engagement of facilitator Melissa Macfarlane last year to run the annual S+C Aquaculture forum. This continued through this year with her supporting several S+C Aquaculture progression workshops which picked up ideas generated at the forum.

At the October S+C Aquaculture group meeting Melissa reported what had come from these workshops.

Superpowder and Superfood Status

The opportunity seen was to lift awareness around health benefits of GSM. There was uncertainty around being able to call GSM a superfood, along with making health claims and what can and cannot be said. The group landed on developing documents for GSM marketing teams and new starters in organisations to clarify health benefits. These have now been distributed and the feedback is very positive.

FLUPSY

Upwelling systems have been historically used with oysters. A large amount of work is being done in this space out of Auckland University and it was decided we wanted to get a FLUPSY in a convenient Marlborough site to develop the learnings. After engagement with local iwi and with stakeholders including Port Marlborough and Marlborough District Council, a pilot site is being located in Waikawa Marina. A berth has been donated by the Port. Water tests have been completed and spat has been sent for trials with Auckland University. Sanford and SpatNZ are building the local FLUPSY and will aim to have the first cohort of spat in the marina for trials early 2024.

December meeting

We will have our final bi-monthly meeting of the year on Wednesday December 13 via Zoom 11am-noon.

Already we've lined up Emilee Benjamin to provide an update on the work she is leading on mussel restoration and an MBIE staffer will join us to give an overview of the various Government funding streams available for aquaculture.

Our group wants to be in a position to land some of this funding and Council is indicating it will help. *All we need are more marine farmers to spend one hour every two months by Zooming in.*

Please join the December 13 11am [Zoom](#) – even better, email MDC and get on the list – sarah.leighton@marlborough.govt.nz

Brendon Burns

Chair - Smart+Connected Aquaculture



msnz
Marine Services NZ Limited

Screw Anchoring for accurate positioning & strong holding power

Block positioning to ensure compliance

Commercial Diving for inspections and maintenance

Moorings, Fixed Jetties and Pontoons

Barging for logistical support

11 Auckland Street, Picton 7220 - 03 573 8045 - info@marineservicesnz.com

www.marineservicesnz.com

Barbie's role in the mussel seeding socking revolution

The current hit film *Barbie* reminds us of the star power of the curvy blonde doll but did you know she played a critical role in the development of the mussel industry?



PHOTO: COURTESY WARNER BROS.

In the early years of the marine farming industry farmers tried all manner of techniques to seed spat onto lines. Christchurch's Andy Joines entered the scene when he worked as a sales rep for Feltex Cordage, selling their Lynn Ropes, in the mid-1970's.

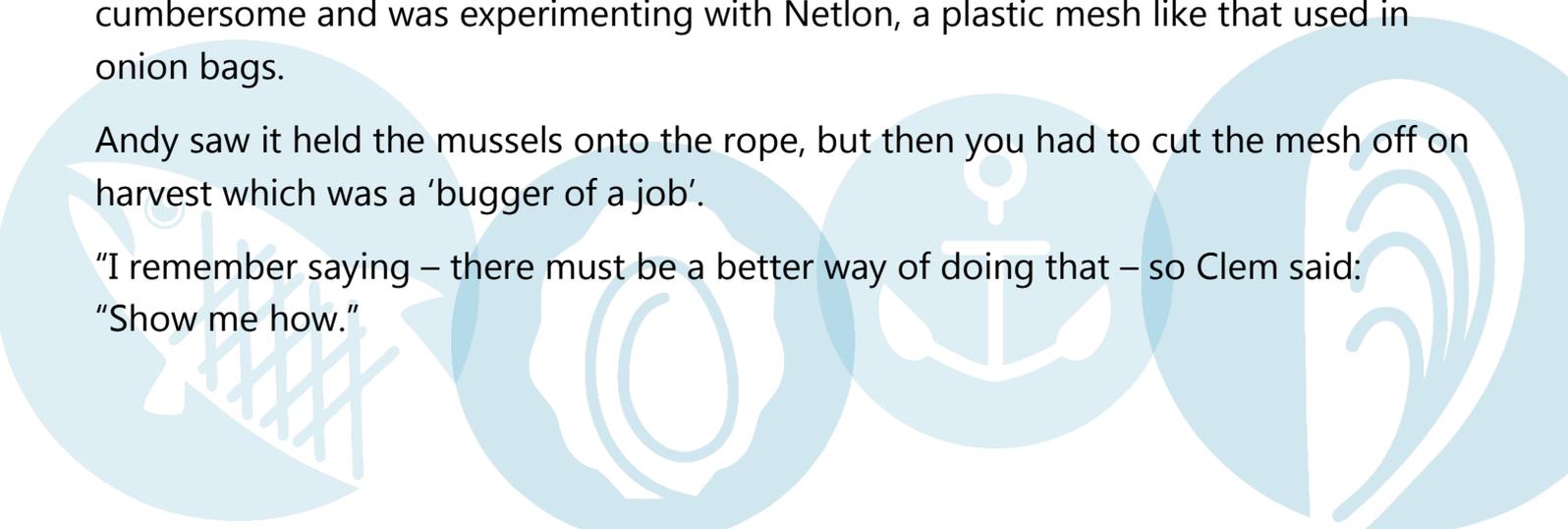
During this time, a Marlborough car and boat dealer asked him if Feltex made carbon black rope – as used by his mussel farmer clients. Andy obtained a sample and promptly sent it to the Auckland Feltex factory, which was soon producing kilometres of it.

This brought him into contact with Clem Mellish who'd secured the third mussel farm licence in Nydia Bay. Clem recalls he met Andy outside the Singer Sewing Shop in Blenheim, which might have been a sign of their future.

Andy says Clem invited him out on the *Arawa* which he'd built, to see mussel farming first hand. At that time, a type of nylon bandage known as 'Spanish Lace' was wound around spat on short lines. Clem, however, thought that too cumbersome and was experimenting with Netlon, a plastic mesh like that used in onion bags.

Andy saw it held the mussels onto the rope, but then you had to cut the mesh off on harvest which was a 'bugger of a job'.

"I remember saying – there must be a better way of doing that – so Clem said: "Show me how."



Andy's daughter Angelique was 8 at the time and, like most girls of her age, adored her Mattel-made Barbie doll. Her grandmother had bought her a Mattel add-on for Christmas which allowed you to make clothes for Barbie.



"You wound a handle and it made a tube of wool or cotton."

Andy borrowed it and laboriously made 10 metres of cotton socking which he sent to Clem. "He said that's amazing – make me 100 metres."



Clem with the funnel he made for seeding mussels.

Andy adapted a knitting machine to an electric drill and made 100m – the first of his many inventions and developments.

Clem says he had Sanford's factory manager Don Mitchell come to harvest the line seeded with Andy's socking.

"He couldn't believe it. All the rope was seeded."



An early Mussock machine

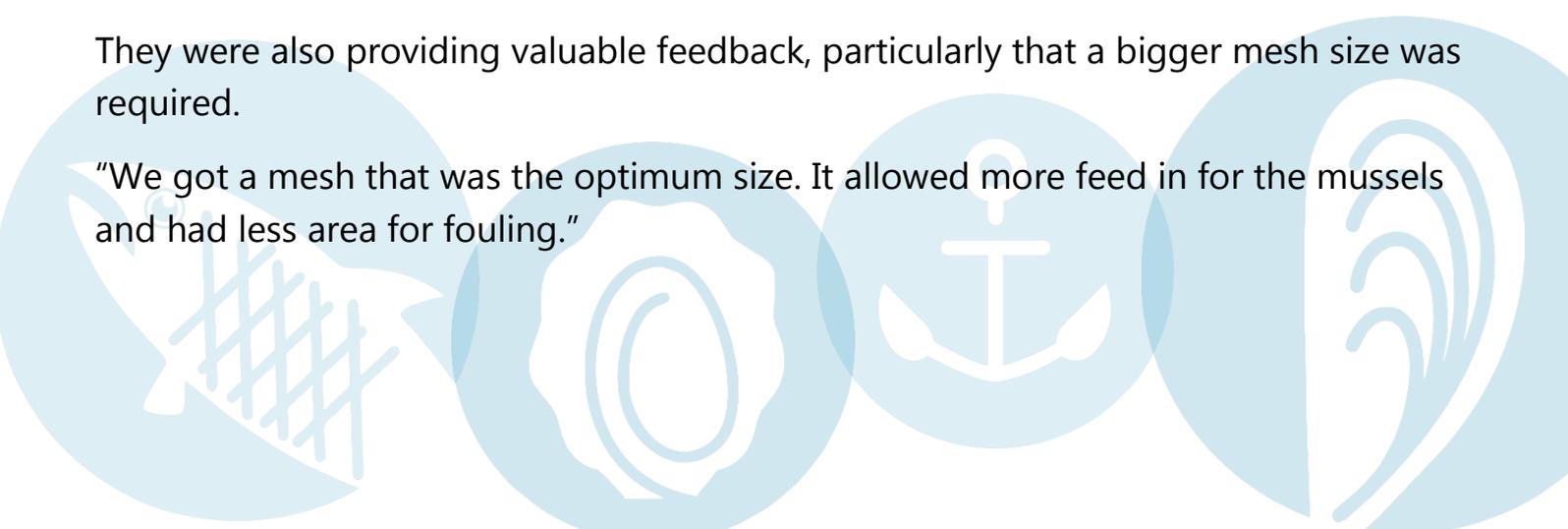
Andy found a knitwear factory in Richmond which had a flatbed knitting machine capable of making circular cotton tubes which was then put on a Newmans bus and sent to him in Christchurch. On weekends, he would use his father-in-law's factory to measure, cut the socking to order. Next, he found some old flatbed single feed machines from a carpet factory which was closing. He bought these and turned his large garage into a factory to start producing socking.

He called it Mussock – Mussel Seeding Socking – though Andy says everyone wrongly calls it stocking. "A stocking is something you put on your leg. A socking is a continuous mesh you put over things like irrigation pipe."

By 1978, Andy had found machines with four feeders which could produce four times the amount of a single feed. He soon leased a small factory in Christchurch and was supplying customers including Clem, Bruce Hearn, John Young, Graeme Clark, Jim Jenkins and others with 1000m cartons of socking.

They were also providing valuable feedback, particularly that a bigger mesh size was required.

"We got a mesh that was the optimum size. It allowed more feed in for the mussels and had less area for fouling."



Others were already making socking. Andy worked with engineer Stu Brock to develop a machine from scratch.

"I said it needed to run 24/7." Over the years they produced around 70 socking machines for sale.

"My machines are the only ones in the world makes the mesh that's needed."



Mussock on a dropper on Clem Mellish's farm

He also imported cotton and sold that with the machines. Andy, who is now 82 and feeling his age, sold the business last year though he's still working on a socking for seaweed.



The last socking machine that Andy made

He says he couldn't have achieved what he did without the support of his wife Lorraine and his family, including son Mark, who helped run the 20 machines in the factory.

Andy was honoured at the MFA Awards in August, receiving the Merit Award for his distinguished service to the industry for *'making a significant and beneficial difference to the marine farming industry over a sustained period.'*

Footnote: Andy also ran a shop in Christchurch for 30+ years selling hand-knitted jerseys. When he started Mussock, he asked his knitters to make some of the hats.

"We used to pop them in the bags of Mussock from time to time. Graeme Clark got one of the original ones – he treasures it. "

Andy has still got a few left and has offered to put them up for auction at the next MFA conference, with proceeds going to a good cause of the marine farming industry's choice.



Andy Joines was supported by his wife Lorraine and daughter Tiffany in receiving the Merit Award from Jono Large in 2023.

Rob Pooley was wearing one of Andy's free Mussock hats.

MFA Newsletter Stories

Do you have a story you would like to see published in our newsletter?

For consideration, please forward it to:

office@marinefarming.co.nz

Our newsletter comes out quarterly – March, June, September, and December





You are welcome to tie up to a mussel farm to fish
(many say it is the best spot)

When navigating near mussel farms you need to know the following:

- Always keep a good lookout
- Never exceed 5 knots when navigating around mussel farms
- Avoid entering mussel farms at night
- Orange floats mark the ends of each mussel line
- At night, mussel farms are marked with yellow flashing lights. The light sequence is a group of 5 flashes every 20 seconds. FI (5) 20s
- Please loop a rope through the handle of a black or orange float (not lights / navigational aids)
- Don't tie onto the backbone or growing ropes as you will chafe them
- Don't fish through the lines between the floats
- Keep propellers well away from the lines, propellers are like knives

If you find a float - it's a marine farmers property.
 Please call **03 578 5044** to alert us.

Boaties - Please ensure your hull is free from unwanted organisms before entering Sounds waters.

If you have any concerns about environmental issues at a Marine Farm call the **MFA** on **03 578 5044**



Global award for video on mussel restoration project

A short film on the Greenshell mussel bed restoration project, supported by MFA and industry, working with the University of Auckland, has won an award at an international festival for ecology films.

PhD student Trevyn Toone and postdoctoral research fellow Emilee Benjamin secured victory in the amateur category of the first-ever competition organized by the Society for Ecological Restoration.

The prestigious award, including \$1000 and the “golden cockatoo”, was presented to them during the society's September conference in Darwin.



The video, [Mussel Mania](#), which runs for just under 5 minutes, starts with an hilarious clip of American chef Julia Childs talking about cooking mussels. It then goes into animation about the history of how Greenshell mussel beds were depleted, the start of mussel farming and the current project to restore the beds. Trevyn Toone created the animation and provided the voice-over. “I developed a bit of an animation hobby during Covid as a way to share my research at virtual conferences,” he says.

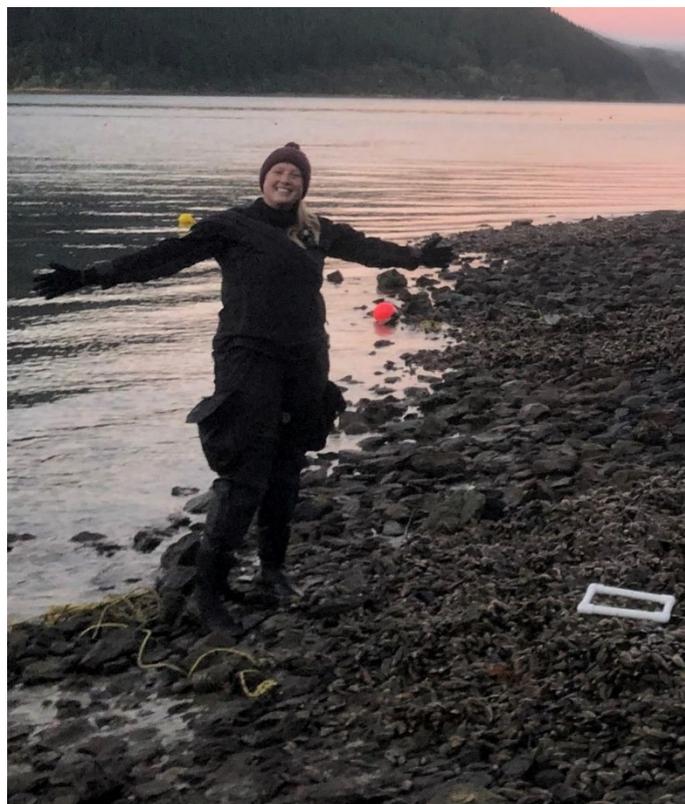
“When I saw that the Society for Ecological Restoration was having a film festival it seemed like a really natural fit and a cool opportunity to have a capstone project for both my research and my animation skills since my thesis was almost finished at the time,” says Trevyn.

He and Emilee relay their involvement in the multi-year GSM restoration project, collaborating with aquaculture farmers, residents, and iwi to add donated mussels to the sea floor with a goal to rebuild reefs.

Emilee tells the video audience that when she started on the project she didn't know if Greenshell mussels would survive particularly given all the environmental changes in Pelorus Sound. "Mussel reefs have been decimated worldwide from climate change, overharvesting and invasive species, resulting in estimated losses of half of the world's mussel reefs," Trevyn says in the video.

"Conserving our remaining reefs is vital but restoration is also an essential tool to fully recover these incredible ecosystems."

Brendon Burns



We're interested in buying your mussel farm

Thinking of selling? If your mussel farm is located at the Top of the South we are interested in purchasing your farm at a very competitive price.

Contact Scott Gillanders / scott.gillanders@maclab.co.nz / 027 649 0239



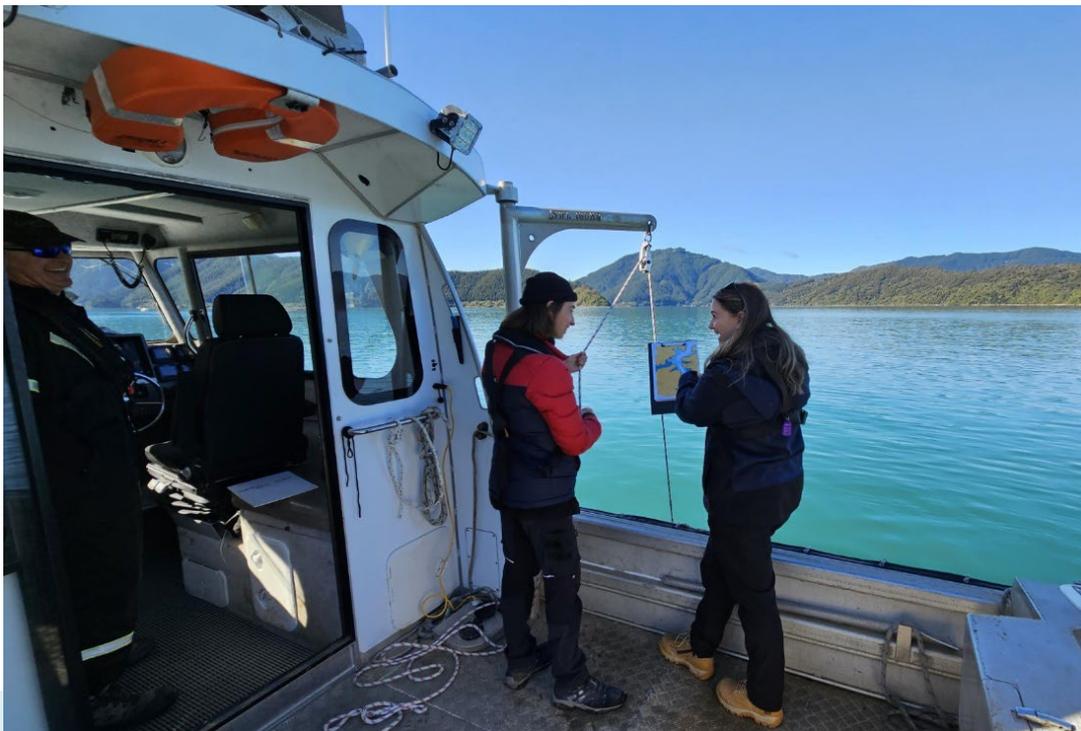
MacLab

Mussel Reef Restoration update

Site selection for new mussel restoration locations in Te Tau Ihu (Top of the South Island)

Site selection is an exciting time in our mussel restoration process. In Te Tau Ihu we partnered with Marlborough District Council in Te Hoiere, DOC in Wakapuaka, and the Mohua Marine Trust in Mohua, to go out on the water and evaluate the benthic habitat. This helps us to choose our next restoration locations in each of these areas. When we evaluate locations for restoration, we are looking to make sure there is no already existing habitat, that the locations are relatively flat without steep slopes, and previously had mussels living there prior to overharvesting.

It's been great to partner with so many organizations that not only want to restore the mussels but also the ecosystems they bring with them!



If you have any questions or want to get involved with this work, please reach out to Emilee Benjamin via email at Emilee.benjamin@auckland.ac.nz

REID TECHNOLOGY

leaders in solar power

Sealite SL15 1-2nm

Sealite Advantage

- User adjustable flash code
- User replaceable battery
- NiMH battery for long service life
- Completely sealed and self-contained
- IP68 water-proof
- Advanced LED compact lamp



"Trusted by more than 200 government agencies worldwide..."

Marine Navigation Aids



Manufacturing the widest range of LED lanterns, including solar marine lights, heavy duty marine lanterns, navigation buoys, barge lights, leading lights and monitoring systems.



Full range of Marker, Navigation and Ocean Buoys up to 3mt in diameter



RF Synchronised Solar LED Lanterns



Poseidon Safe Water Mark, Australia



Sealite's Nautilus 2.2m diameter ocean buoy with SLC420 solar marine lantern, Australia

REID TECHNOLOGY
leaders in solar power

Supplied by: Reid Technology Limited
Tel: + 64 9 489 8100
Web: www.reidtechnology.co.nz

Product enquiries to sales@reidtechnology.co.nz

FirstMate – helping those in need

As you will know, FirstMate NZ is a charity set up to help and support those that work in the commercial seafood sector, including marine farmers and their whanau, with their mental health and wellbeing.

In the last few months, we've been focusing on supporting those that were seriously impacted by the storms at the beginning of the year. The fact that we have marine farmers still impacted all these months later, really shows the level of devastation and how important it is for us to be on the ground to support them.

Part of our work has also been to raise awareness of the impacts these events have on our communities, and you may have seen one of several stories in the media recently.

FirstMate started in 2021 when we were provided funding by the Ministry for Primary Industries to support the mental health and wellbeing of those in our sector.

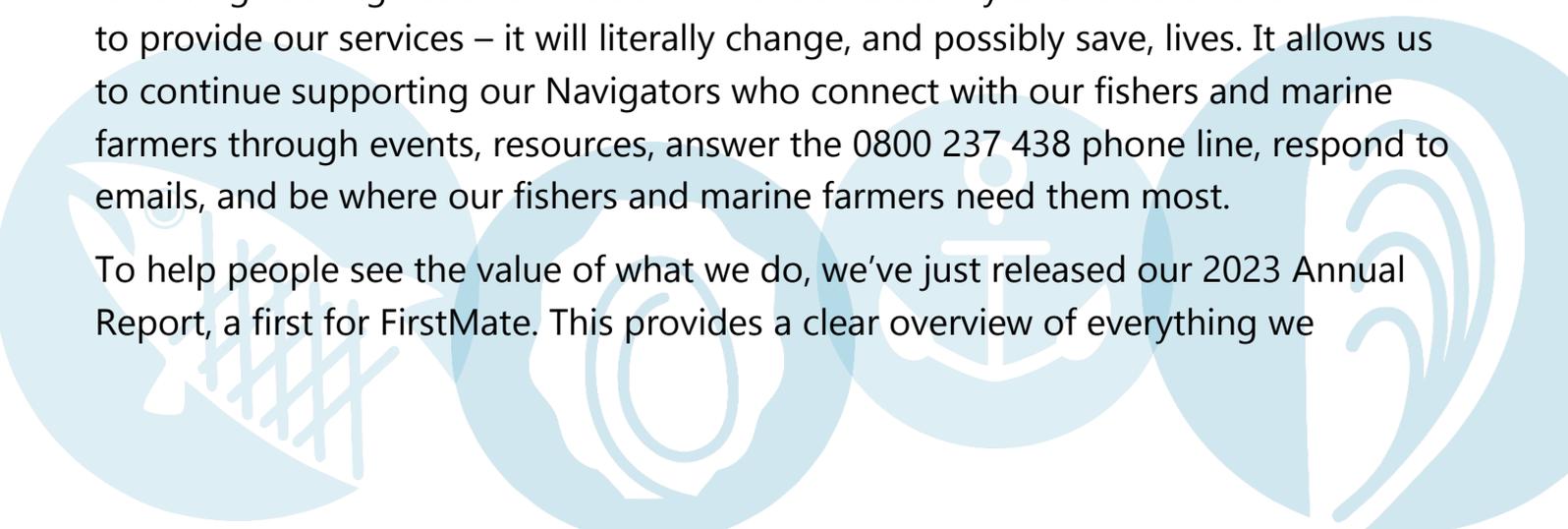
We're very excited to share that we've generously been provided funds that will enable us to continue to provide our important services to June 2024.

Kiwis working in the seafood sector will now have more mental health and wellbeing support thanks to the generous contribution of industry groups.

The donations total \$135,000, including \$20,000 from Aquaculture New Zealand, \$100,000 from Seafood New Zealand and \$15,000 from the Rock Lobster Industry Council. The ShipWreck Relief Fund has generously donated \$30,000 to FirstMate. This organisation, dedicated to providing relief to families who have lost members at sea, is actively supporting the mental health and well-being focus that FirstMate brings to the sector.

Receiving funding has been crucial for our sustainability and to be able to continue to provide our services – it will literally change, and possibly save, lives. It allows us to continue supporting our Navigators who connect with our fishers and marine farmers through events, resources, answer the 0800 237 438 phone line, respond to emails, and be where our fishers and marine farmers need them most.

To help people see the value of what we do, we've just released our 2023 Annual Report, a first for FirstMate. This provides a clear overview of everything we



delivered from July 2022 to June 2023. This means there is total transparency for anyone who wants to see how we function as a charity and the value we offer.

And finally, check out some of the other ways that we're sharing powerful stories about those working in the seafood sector.

Newstalk ZB: Zak Olsen shares his own mental health journey as a commercial fisherman and his work with FirstMate. He talks depression, burn out, shift work, fishing and finding a way back to joy with special guest host Mick Andrews psychotherapist Kyle MacDonald. [LISTEN HERE](#)



Hawke's Bay Today: Commercial fishers say their catches are down and there's still debris and sediment heaped on the ocean floor of Hawke's Bay, as the impacts of Cyclone Gabrielle linger seven months on. [READ HERE](#)



TV3 6pm News: The challenges the seafood community faced in the wake of the recent cyclone. Tune in to catch commercial fisher and FirstMate Navigator Rick Burch's first-hand account of the community's struggles, and to gain a deeper understanding of the impact adverse weather events can have on local fishers and their livelihood. [WATCH HERE](#)

ACC Video & Story: Health and safety advocate Darren Guard has lost many mates to the sea and has also come close to losing his own life. So, he's used funding from ACC to set up MarineSAFE – an online training programme to help fishers stay safe at sea. [VIEW HERE](#)



Hook, Line & Sinker: Check out the first episode of the Primary Matters podcast series featuring Darren Guard. 'Hook, Line & Sinker' is all about FirstMate and the guidance and support we offer to people in the seafood sector and their whānau. [VIEW HERE](#)



RadioNZ: FirstMate Adverse Event Navigator for Northland Zak Olsen shared his journey of receiving crucial support from FirstMate when he needed it most and spoke about his desire to give back to the seafood industry and support the wellbeing and mental health of fellow fishers. Check out the recording starting 2:13 minutes. [LISTEN HERE](#)

FirstMate Co-Chair, Justine Inns



**SABIK
MARINE**



Aquaculture Light Applications.

SPECIAL MARK

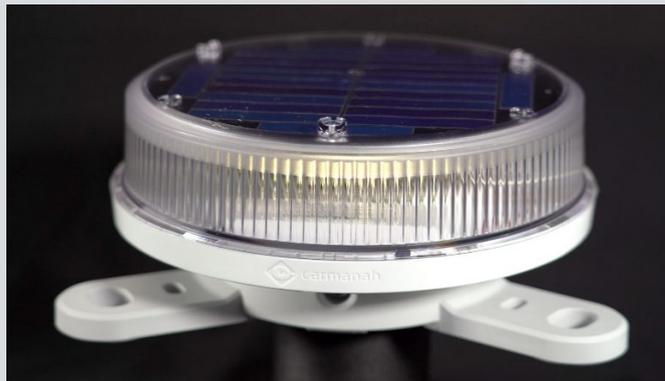
Solar 1-3NM Sabik M550 Lantern



- Fully Self-contained, Programmable, IP68, up to 3 NMs
- Weighs just 400gms.
- 15 Year design life & 3 Year warranty. Made in USA

CARDINAL MARK

Solar 4NM Sabik M660 Lantern



- Fully Self-contained, Weighs 800gms, IP68, up to 4 NMs
- Bluetooth Programming using Smartphone up to 50 Mtrs away
- 7 Year battery. All colours. Bird Spikes incl as standard
- 15 Year design life & 3 Year warranty. Made in USA

**SABIK
MARINE**



SENSOR SYSTEMS (NZ) LTD

Ph: (09) 275-4578 Email: mark@sensorsystems.co.nz

www.sensorsystems.co.nz

Could marine pollutants and climate change be responsible for the decline in mussel settlement in the Marlborough Sounds?

Summer die-offs of spat and a severe decline in wild spat settlement have been reported in Greenshell™ mussel/kūtai (*Perna canaliculus*) in the Marlborough Sounds over the last decades, impacting both seed-supply and the industry's ability to grow.

The causes of these effects are unknown, but our latest research provides preliminary evidence that deteriorating water quality - particularly the presence of trace metals, biotoxins, and organic contaminants (e.g., pesticides) originating from land use activities - are contributing factors to the lack of settling larvae and unusual mortalities of spat.

At the same time, rising temperatures along with an intensification of climate drivers (El Niño Southern Oscillations, Southern Annular Mode) and storm events, are causing rapid and extreme changes to coastal environments. These climate-associated stressors (marine heatwaves, pH changes, and high sedimentation load and freshwater inputs) may exacerbate the effects from contaminant inputs.

A better understanding of these complex interactions in the Marlborough Sounds is essential to understand how we can prevent or mitigate these effects, and to help create knowledge that may help us prevent recruitment declines occurring in other regions like Northland which provides the vast majority of NZ's kūtai spat.



Figure 1. Greenshell™ mussel/kūtai (*Perna canaliculus*) newly settled spat on ropes.

Within the Shellfish Aquaculture Research Platform (ShARP) at Cawthron, we are using a three-pronged approach to tackle this issue.

1. Water quality monitoring in the Pelorus Sound

Supported by industry (MFA, Sanford, Clearwater Mussel Ltd) and academic collaborators (University of Waikato, University of Auckland, Plant & Food Research), a water quality monitoring scheme has been in place since November 2021. Based on 40 years of mussel settlement data provided by the MFA, we selected three sites in the Pelorus Sound with contrasted levels of wild spat settlement: Garnes Bay, Beatrix Bay, and Skiddaw (Fig. 2).

We used a passive sampling approach to characterize pollution levels in the actual surface waters at these three sites over several months during the spawning/recruitment seasons of 2022 and 2023. Specifically, three different passive sampling devices (PSDs), including Diffusive Gradient Thin-Films (DGT), Chemcatchers™ and Solid Phase Adsorption Toxin Tracking (SPATT) samplers, which measure bioavailable metals, organic contaminants (e.g., pesticides) and biotoxins respectively, were deployed across the three study sites. In addition, both tissue (from resident mussels) and sediment samples, were periodically collected from each site to quantify the accumulation of contaminants in mussels or sediments.



Figure 2. Study area: Pelorus Sound

Early findings indicated elevated levels of certain heavy metals (notably Zinc) during the mussels' recruitment peak, which appear to coincide with heavy rain events. Furthermore, a cocktail of biotoxins and organic contaminants, including herbicides, were extracted from the rest of the field-deployed PSDs. Variation over time and season were observed, with some key toxins predominantly present during late summer and overlapping with the spawning and recruitment season.

2. Development of bioassays using early life stages

In marine shellfish, early life stages such as sperm, eggs, embryos and larvae, which are released into the seawater to undergo their development, are generally more sensitive to stressors and pollutants than adult stages. As a result, embryos are valuable tools in ecotoxicological assessments. Despite the commercial and ecological importance of Greenshell™ mussels, currently, in NZ, most studies that look at the effects of contaminants are carried out using embryos of the blue mussel (*Mytilus galloprovincialis*), which although being an international standard, may not respond in the same way as Greenshell™ mussel early life stages. Our previous lab and hatchery research has indicated that indeed the developing Greenshell™ mussel embryos and larvae may be particularly sensitive to changes in water chemistry.

We have now developed and validated three important new assays to enable us to measure the effects of contaminants on early life stages of Greenshell™ mussels and compare their sensitivity to the results obtained from the standard blue mussel assays. The first is a 'spermiotoxicity' assay which characterises the health of the sperm, the fertilization success, and the subsequent survival of embryos and larvae. The second is an 'embryotoxicity' assay which measures potential toxic effects on embryos (Fig. 3 A), and the third is a larval settlement assay, exposing competent larvae of Greenshell™ mussels (Fig. 3B) to contaminants, and measuring subsequent settlement success and survival.

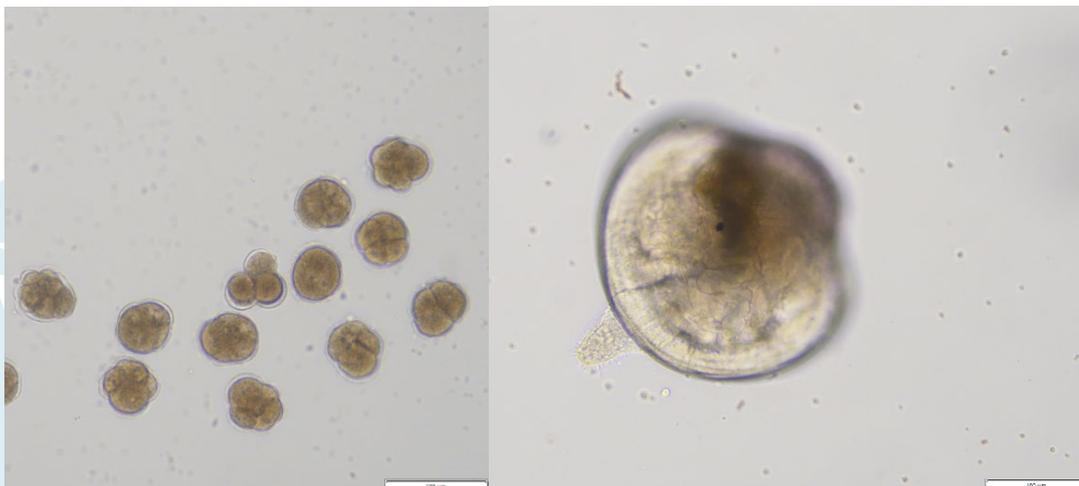


Figure 3. (A) *Kūtai/Greenshell™* mussel (*Perna canaliculus*) fertilised eggs and (B) competent 20-day old larva before settlement.

We used these new bioassays, to test the effects of a range of different contaminants, heavy metals and/or mixes extracted directly from the samplers (Fig. 4). The spermotoxicity assays showed that the endemic Greenshell™ mussel has similar sensitivity to contaminants as blue mussels, and that Greenshell™ mussel sperm can be successfully used to rapidly assess the toxicity of a range of chemicals. We found some extracts obtained from the PSDs were non-toxic, but some were highly toxic to sperm cells.

We also found that levels of bioavailable Zinc that were occasionally reached in the field and in our hatchery water supply were high enough to be detrimental to Greenshell™ mussel settlement, whereas toxic thresholds for Lead were not detected in the field.



Figure 4. *Biotoxin extract (Left) collected from the field to be tested on Greenshell™ mussel sperm (spermotoxicity assay). Guava flow-cytometer used for high-throughput assessments (Right).*

3. Assessing the toxicity of environmentally relevant contaminants in a climate change scenario

This pioneering approach in water quality monitoring, combined with the new bioassay testing described above, are providing valuable environmental data, and helping us better understand potential drivers behind declines in wild spat recruitment and mortalities in the region. Our hope is that this information will assist marine farmers by providing decision support tools.

Additional funding from MPI (Sustainable Land Management and Climate Change) has enabled us to strongly leverage this research and further investigate how climate change can exacerbate the impacts of marine pollution on Greenshell™ mussels. This

new grant is allowing us to continue our environmental monitoring scheme in the Sounds and expand our lab-based investigations into the combined effects of temperature, contaminants, and field-collected sediments on Greenshell™ mussel fitness.

For more information on this research, contact Julien Vignier at Cawthron (Julien.vignier@cawthron.org.nz). If you'd like to receive updates about tools and resources, sign up to the Sh.A.R.P mailing list.



**World-class
science for a
better future.**



USEFUL IN THE RIGHT PLACE



NOT ON THE BEACHES



NOT IN THE WATER

CONTROL YOUR WASTE

The Better Beaches Project -1 year on

Darren Clarke needs little introduction to the marine farming community of the top of the South. Having grown up in Golden Bay, Darren and his wife Jackie became known through their previous company TNL Takaka (now Move) which transported shellfish out of Golden Bay and around the country. Mainly transporting Mussels, and Scallops back in the day, Darren became familiar to many of the local farmers and companies.



Growing up on and around the water and then immersing himself into the aquaculture industry has given Darren a lifetime of insight into the issues that our coastlines face both from recreational and commercial pressures. Following the sale of TNL Takaka and observing the challenges arising from staff shortages amid the COVID pandemic, Darren, driven by his restless nature and vibrant personality, launched an environmental initiative known as "The Better Beaches Project.

If this rings a bell, it might be because you've trailed behind one of the two Solly's trucks proudly displaying Better Beaches advertisements.

This cleanup effort wasn't just established to assist aquaculture companies grappling with staff shortages, but also to provide other affiliated businesses an opportunity to promote sustainability and environmental awareness, even if they can't physically engage in beach cleans themselves.

Celebrating its first anniversary, the Better Beaches Project has had a fantastic beginning.



As of November 2023 there are 14 companies sponsoring the cleaning of 28 Marlborough Sounds beaches.

Funds are used to support Darren and his team to get out in the sounds via boat, quad or car and clean specific areas that are known to accumulate debris. Sponsor's beaches are cleaned at least twice a year alongside the regular industry cleans. To date the Better Beaches Project has cleaned around 200kg of rubbish from our beaches and shorelines.



If you're interested in becoming a sponsor, please visit: www.marinefarming.co.nz/the-better-beaches-project/ or contact Darren Clarke on 027 566 1444

- Kiah Holdaway



Sponsorship Levels		
Diamond	\$10,000	5 Beaches
Platinum	\$8,000	4 Beaches
Gold	\$4,000	3 Beaches
Silver	\$2,000	2 Beaches
Bronze	\$1,000	1 Beach

A huge thank you to our 2023 Better Beach Project Sponsors. We couldn't do it without you!

GOLD



SILVER



MAARA MOANA



BRONZE



Skipper Training NZ courses are now funded!

Starting in 2024, the courses offered by Skipper Training NZ will have the same funding as other schools, significantly lowering the cost for students.

Skipper Training NZ founder Milo Coldren says, "It's incredibly humbling to read our students' amazing reviews on Google and Facebook while recognising they paid more than if they had gone to another school".

The organization takes pride in its contribution to industry-specific training, encompassing safety protocols for those working around docks and ships, customized training for government agencies and commercial operators, assistance with MOSS and Part 35 requirements, and the development of flexible courses for shipping and deep-sea fishing companies.

Milo developed the practical SRL course after teaching at a Polytech and seeing how many students struggled to complete their Training Record Books, along with months of online learning, prior to attending the traditional classroom-based block course.

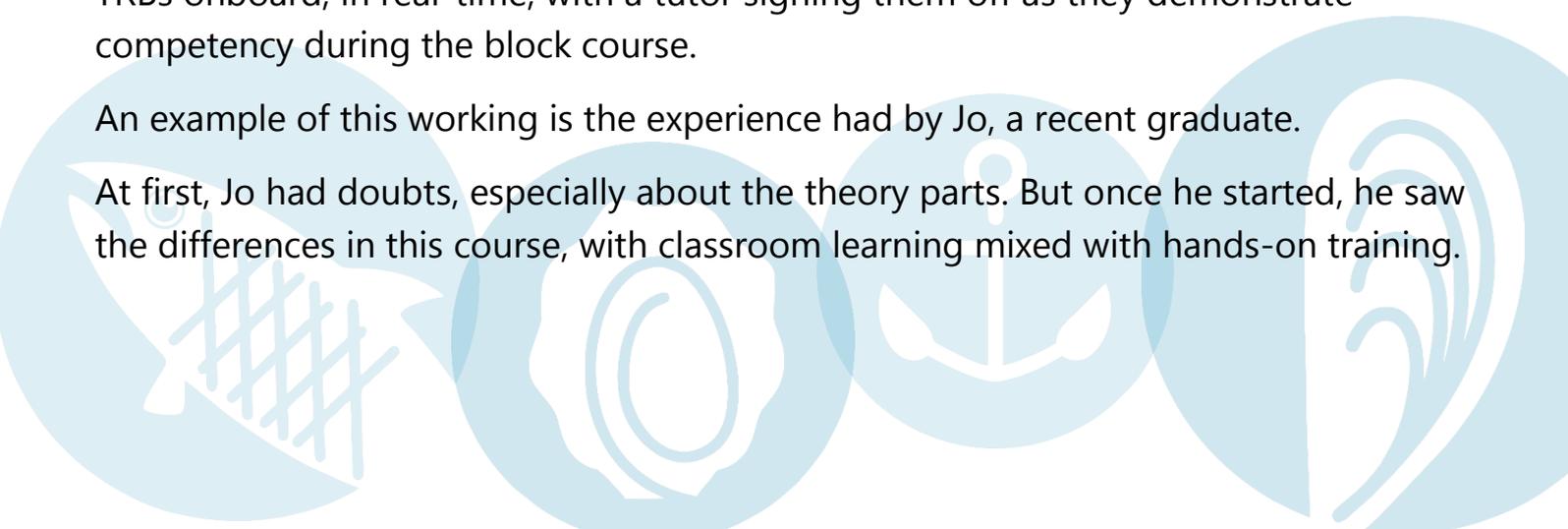


He believed in his concept so strongly that he bought a rugged 16m training vessel with a pair of 500hp Cats and outfitted it with modern electronics.

Now, as part of a Skipper Training NZ practical course students can complete their TRBs onboard, in real-time, with a tutor signing them off as they demonstrate competency during the block course.

An example of this working is the experience had by Jo, a recent graduate.

At first, Jo had doubts, especially about the theory parts. But once he started, he saw the differences in this course, with classroom learning mixed with hands-on training.



This helps make it relevant and easy to understand. As Jo mentioned, "doing theory and then jumping on the boat and doing it... it made the theory make sense."

As Milo, says, "If you put in the effort, you won't fail here."



The team at Skipper Training NZ has gone beyond the initial concept, incorporating the Basic Radar Observer micro-credential into every SRL course. This enhancement not only boosts the confidence of students but also benefits their employers.

One of Jo's highlights was learning about traditional chartwork. It started with developing a basic passage plan in the classroom, then executing it aboard the school's dedicated training vessel "52- 18".

During the passage that involved several short legs, his team worked from a cabin without any windows or electronics and would use the intercom to pass on course changes to the helm station based on their calculation and chart work. They were amazed to see how accurate they were.

After finishing the course, Jo said, "I just passed, and it feels great!"

Isabella Merschdorf



Training to meet the needs of industry and students



- ✓ Qualified Deck Crew (QDC)
- ✓ Emergency Vessel Handler
- ✓ Skipper Restricted Limits (SRL)
- ✓ Training Record Book Completion
- ✓ 500 GT SRL Endorsement
- ✓ Mates Fishing & Deck Watch Rating
- ✓ Recognition of Prior Learning
- ✓ Short Courses and micro credentials
- ✓ Training Tailored to Industry Needs

Look around
our dedicated
training vessel



Check out our website for course dates and details
or get in touch anytime - we'd love to hear from you!



SKIPPER TRAINING NZ
- PRACTICAL MARITIME TRAINING -

www.skippertraining.ac.nz

info@skippertraining.ac.nz

0800 546 9700

Wizard Waste Ltd

SKIP HIRE - SUPPORT LOCAL BUSINESS

(Based in Havelock and Blenheim)

Ashley (Jono) Johnson

Mobile: 022 6877 147

Are you looking to save costs on the disposal of your commercial waste? Wizard Waste Ltd is keen to help.

This business, previously owned by Brian Clark, is now owned and operated by Ashley Johnson. Ash grew up in Havelock, started his working life there and is now looking to improve the waste management services available to the Havelock and wider Pelorus area, as well as to the rest of Marlborough.

We offer:

- Skips available at competitive rates
- Friendly and personal service
- Quick turnaround time as business is locally based in both Havelock and Blenheim
- Servicing your needs anywhere in Marlborough
- Special hire rates for repeat commercial customers
- Terms are 20th month following invoice

Ash is more than happy to discuss your needs and offer a service and skip type that suits your situation, as well as a competitive price. We are currently refurbishing the stock of skips with several already repainted in a fresh green colour. Looks great.

GIVE ASH A CALL TODAY - 022 6877 147



**KEEP THEM
ON BOARD**

CONTROL YOUR WASTE

NOT IN THE WATER

CONTROL YOUR WASTE



MARLBOROUGH SOUNDS ICONIC KING SHAG

HOW TO IDENTIFY THEM – HOW TO HELP PROTECT THEM

	Description	How to identify which species
	<p>KING SHAGS King Shags are a rare seabird, which is endemic to Marlborough they are generally located in the Outer Sounds. Colonies nest on rocky outcrop and roost on other rocky points & on mussel floats. The King Shag does not nest or roost in trees, they are very wary & rarely seen in close proximity to boats.</p>	<ul style="list-style-type: none"> • Black & white plumage which is browner in juvenile birds • White wing patch, especially noticeable when in flight • Black feathers on head reaching below bill giving the appearance of a darker head compared to a Pied Shag • Pink legs & feet • Tends to swim away from you flicking its head from side to side
	<p>PIED SHAG Pied Shags are found throughout the sounds. Their nesting colonies are typically found in trees close to or overhanging the sea. The Pied Shag roosts in other trees or on rocky points & on mussel floats. They are relatively approachable. Birds readily follow boats especially when fishing or harvesting mussels.</p>	<ul style="list-style-type: none"> • Black & white plumage, brown in juvenile birds • No white wing-patch • Back completely black or brown • Black feathers only on upper head making birds appear more pale-headed than King Shag • Black legs & feet
	<p>SPOTTED SHAG Spotted Shags are found throughout the Sounds. Higher numbers are found in the Outer Sounds. The Spotted Shag nests in small colonies and in small pockets & caves in the steep cliffs. Quiet & approachable bird. Does not usually approach boats.</p>	<ul style="list-style-type: none"> • Grey plumage • Yellow legs & feet
	<p>LITTLE SHAG Small Shags are found throughout the Sounds in small numbers. Little Shags nest in trees, often in Colonies with Pied Shags. Relatively flighty, and does not usually approach boats. Commonly seen within mussel farms.</p>	<ul style="list-style-type: none"> • Small Size • Variable amount of white on breast of birds, ranging from birds with full white breast to those with just a white chin • Short yellow bill • Black legs & feet
	<p>BLACK SHAG The Black Shags are found throughout the Sounds in small numbers, they are common in the Inner Sounds & around the harbours of D'Urville Island. The Black Shag nests in small colonies in trees. Often in lagoons or lakes back from the sea.</p>	<ul style="list-style-type: none"> • Large size (Similar size to King & Pied Shag) • Fully black plumage • Browner in Juvenile birds • Black legs & feet

**IF YOU ARE APPROACHING A KING SHAG OR A KING SHAG COLONY – YOU SHOULD
REDUCE SPEED, REDUCE NOISE & KEEP YOUR DISTANCE (at least 200 metres)**

CLIMATE ACTION WEEK MARLBOROUGH

Activating a Climate Positive Future

Supported by



To Promote & Nurture Sustainable Marine Farming

*Tickets
Available
Now!*



2024

