## New Zealand King Salmon seeks new waters

New Zealand King Salmon has a problem most businesses can only dream of.

That is to decide which of its many customers it cannot supply.

The premium product is in such demand, deliveries have to be rationed.

That is why the company earlier this year took the unusual step of becoming a salmon importer, bringing in the more common Atlantic salmon.

That is a cheaper and less palatable product, but inferior salmon is better than no salmon at all to small businesses reliant on it, as long as the distinction is made clear.

King Salmon is severely constrained by its access to water space.

The company has eight farms covering 17 surface hectares in the Marlborough Sounds, which produce 8000 tonnes of salmon per year.

No other means of protein production is as efficient, or has as little environmental impact.

Agricultural production, with its substantial water and fertiliser and chemical inputs as well as the loss of natural habitat and wildlife when the land was cleared cannot compare.

Despite this, King Salmon faces multiple challenges.

These include objections from environmental groups, bach owners and other aquaculture interests; lack of strong water flow in the inner Sounds; fouling of the seabed from faeces and nutrients; increasing water temperatures that have caused mortalities as high as 50 percent at the height of summer.

King salmon, also known as quinnat or chinook in its native North America, was first farmed here at the famed Te Waikoropupu Springs outflow in Takaka in 1976.

It is the only salmon species farmed in New Zealand and this country has become the world's top producer of a species generally regarded as the premium in terms of taste, nutritional quality, colour, fat, Omega 3 oil content, fillet size and texture.

King Salmon produces just over half the New Zealand total.

Sanford is the next biggest producer, based at Big Glory Bay in Stewart Island, followed by Mount Cook Alpine Salmon, farming in freshwater hydro canals.

King Salmon has sought approval to move several farms to higher flow sites in the outer Sounds and is awaiting a decision from Fisheries Minister Stuart Nash.

But the long-term solution in King Salmon managing director Grant Rosewarne's mind is to look to the open ocean.

He favours submersible pens anchored 6-12 kilometres offshore in the region surrounding the Cook Strait, despite its wild weather.

The frigate Wellington sunk off the Island Bay coast was soon torn apart by southerly storms. A 14-metre wave has been recorded by the fixed beacon at the entrance to Wellington Harbour. Offshore salmon farming is expected to be much further away from land.

Rosewarne is undeterred.

He says the pens would be like underwater silos, submerged 20 metres below the waves, where the water would be much calmer than on the surface.

"There's a very real possibility it could become New Zealand's biggest industry," he said.

"In Norway they've already used aquaculture to replace their $70 billion oil and gas industries."

He sees long-term potential for up to 100 submerged pens holding 1000 tonnes of salmon each, that still leaves plenty of room for marine mammals and sea-based activities in a significantly sized ocean area. This opportunity for low-impact growth over the next few decades could lift revenue to $2.5 billion annually, more than is currently gained from the entire seafood industry's domestic and export sales.

## NZ Seafood Industry Conference

Registrations are now open for 2018 New Zealand Seafood Industry Conference and Technical Day to be held on the 1st and 2nd August at Te Papa.

The programme for the technical day on 1 August and the conference on 2 August has been finalised. We have a packed agenda on both days, including an excellent line up of local and international speakers. View the full programme here.

Minister of Fisheries, Hon Stuart Nash, has been confirmed to open the Conference and Hon Shane Jones will be highlighting the importance of the seafood industry to regional economic growth.

The NIWA technical day will feature topics from ocean acidification and plastics pollution to protecting the safety of our seafood and digital monitoring.

Our Sustainable Seafood session at the conference will feature Volker Kuntzsch, chief executive of Sanford, Grant Rosewarne, chief executive of New Zealand King Salmon, and Doug Paulin, general manager of group operations at Sealord, who will outline their companies' contribution to an innovative and sustainable industry.

We have had a great response to our call for Posters. These will be displayed throughout the technical day and conference and Seafood Innovations will be hosting a Happy Hour Poster Session at the end of the technical day. Posters will also be displayed during the catering breaks in Oceania on 2 August. Tickets are still available.

Keep an eye out for details of our conference app in the coming two weeks.  This will be a great way to connect with other delegates.

Just three weeks to go so register online now.


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## Signs of improvement for Kaikoura marine life

Two years on from the 7.8 magnitude earthquake, marine life devastated by underwater mudslides are showing signs of activity in Kaikoura’s Canyon once more.

The Canyon ran 60 km in length and was estimated to be 1200 metres deep. It was largely recognized as one of the most productive deep-sea ecosystems on Earth and attracted many large and small marine mammals.

Before the 2016 quake, an abundance of sea cucumbers, bristle worms and irregular urchins dwelled in the canyon, but post-quake surveys found most of the invertebrates were gone.

The research project conducted by Niwa studies life in the Kaikōura Canyon, recording details on marine species populations. It is one of several habitat projects funded by the Government's earthquake recovery package.

Seafloor samples and video footage show marine life in Kaikoura is recovering faster than originally thought. Researchers have found baby sea cucumbers, juvenile sea urchins and other marine species in the canyon that are "opportunistically filling niches" created by the quake. There were also high densities of rattail fish swimming above the seabed.

The project has recorded a handful of whales visiting the canyon too and numbers are gradually increasing to pre-quake levels. Remarkably, surveys on blue cod, crayfish and Hector's dolphins show their populations have been unaffected.

Further research by Niwa, University of Canterbury and the Cawthron Institute found large amounts of brown and red algae died in the first six months of the event and 21 percent of blackfoot pāua had been destroyed. PāuaMAC3 reseeded 176,000 hatchery-reared baby pāua between Omihi and Paparoa Point to replenish the population and pāua fishing was banned to allow stocks to recover. Encouragingly, recent surveys have found abundant levels of baby pāua.

Seabird populations are improving too. Aerial and ground surveys deemed 13 percent of the shearwater colony had been devastated; but the Hutton's Shearwater Charitable Trust is now reporting signs of recovery, describing the Kowhai colony as "active" and "vibrant" once again.

Fisheries New Zealand science manager Dr Richard Ford said continued monitoring of the recovery progress will inform future marine management options for when and how the current closure of shellfish and seaweed fisheries may be lifted.

Green algae sea lettuce replaced the red and brown algae that died from the quake uplift. The sea lettuce algae later died, turning white. Photo credit: Reef Uplift Research Consortium

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## New science platforms to enhance our industries

The Ministry of Business, Innovation and Employment (MBIE) has announced that $35.4 million will be distributed to three new strategic science platforms over the course of six years. The platforms will undertake research to improve the performance of New Zealand's seafood, shellfish aquaculture and hide and skin processing industries.

The Strategic Science Investment Fund (SSIF) is set to fund the research platforms. Manager of Strategic Investments Danette Olsen said SSIF supports long-term research in priority areas that are critical to the future of New Zealand's economy, environment and wellbeing.

The SSIF platforms will support a collaborative research approach - bringing scientists, resources, expert knowledge and facilities together to deliver on long-term research goals.

Independent research organisation Cawthron Institute will host both the Seafood Safety Platform and the Shellfish Aquaculture platform. The Leather and Shoe Research Association (LASRA) is set to host the new Hide and Skin Processing platform.

The Seafood Safety Platform will receive $3 million per year over the six-year period for research centred on eliminating product recalls and ensuring market access for New Zealand's seafood.

The Shellfish Aquaculture Platform will receive $2 million per year to undertake research aimed at enhancing, growing and securing New Zealand's shellfish aquaculture industry.

The third SSIF platform will address the quality, performance and sustainability of New Zealand's valuable hide and skin processing industry and has been granted $0.9 million per year for six years.

"All three platforms will improve New Zealand's international competitiveness through local research and innovation, and will ultimately strengthen [the] sustainability of our seafood, aquaculture and hide industries by the creation of higher value products." Olsen said.

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## English joins Mount Cook Alpine Salmon

Former Prime Minister Bill English has been appointed to Mt Cook Alpine Salmon's board. English will join the company's board chairman Jim Bolger, who was also a former Prime Minister.

English brings experience from his time in New Zealand politics and from his ventures with the board of Australian retail giant Wesfarmers.

Bolger said the ongoing success of Mt Cook Alpine Salmon largely depends on the performance of the organisation, not just the product.

"Bill's recent retirement from politics gives him the opportunity to apply his talents and unquestionable belief in New Zealand, helping a fast-growing company like ours realise its potential for the benefit of shareholders and NZ Inc."

English said he is looking forward to joining a southern company producing a world-class product that is doing extremely well in high-value export markets.

His appointment will commence August 1.

Jim Bolger & Bill English

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## Ocean Bounty - Te Ohu Kaimoana

This week on Ocean Bounty, host Graeme Sinclair learns of the Maori perspective on effective fisheries management. As major quota holders, innovators and employers, Maori have traditionally voyaged to sea in search of their own ocean bounty. Watch episode 10 this Sunday on TV3 at 5pm.

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## News

Fisheries New Zealand have announced that Marlborough Sounds, Tasman Bay, Golden Bay and Port Underwood will continue to be closed to scallop fishing from 15 July. Most of the fishery has been closed since 2016. The majority of the submissions received during consultation on the continued closure agreed with that plan of action. Director of fisheries management Stuart Anderson said recent surveys have shown scallop numbers in the area were starting to increase, however levels remain low and the beds cannot sustain harvesting. "This ongoing closure provides an opportunity for the scallop beds to recover to allow a sustainable fishery in the future."

The Ministry for Primary Industries is encouraging the wider community to report anyone illegally selling seafood online through social media sites due to concerns over illegal activity and putting public health at risk. Pāua, crayfish and parengo are just some of the delicacies being sold illegally online. "The important thing is that the law will catch up with them, secondly they could get severely sick because we don't know where that kaimoana has come through and under what kind of conditions it has been kept in." said Richard Ratapu, Chief Compliance Officer of MPI.

More than 100 community members presented a report to Auckland Council in a bid to shut down several housing developments that are harming Long Bay Okura Marine Reserve. Numerous building developments nearby - including major earthworks at Long Bay and Weiti - are causing tonnes of soil and other sediment to pour into the fragile ecosystem. Society spokeswoman Fiona McLaughlin said wetlands have become clogged with a thick layer of sediment, which is thought to have led to the mass death of cockles earlier this year. Environmental consultancy Ecoast specialist Shaw Mead said normal storm water and sediment treatments are not adequate to protect the Long Bay Okura Marine Reserve. The council will be considering the issue again in the next two months.

WWF has welcomed the announcement of a voluntary krill fishery closure along the Antarctic Peninsula to protect marine life. Five fishing companies who make up the Association of Responsible Krill Harvesting have pledged to support the creation of a large-scale network of marine protected areas (MPAs) in the Antarctic - including ones in which they currently operate. Antarctic MPAs can only be created with the agreement from all 25 members of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The commission will make its final decision when it convenes in Hobart, Tasmania, in October.


Aker BioMarine's krill fishing vessel in Antarctic waters.

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