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AOTEAROA NEW ZEALAND  
SEAWEED ASSOCIATION

**ANZSA**



# SEAWEED SUMMIT PROGRAMME 2023

October  
**13<sup>th</sup>**  
2023

**The Rutherford Hotel, Nelson**

SUMMIT THEME:  
GROWING WITH SEAWEED /  
TE WHAKATIPU RIMURIMU

## ANZSA Seaweed Summit 2023

### Purpose

Growing a nature-positive Aotearoa New Zealand seaweed community.

An opportunity to come together to learn from each other, and participate in the industry's development, whilst enhancing and protecting our natural environment and international reputation.



# Nau mai, haere mai

Welcome to the second Aotearoa NZ Seaweed Summit, a gathering of shining minds who will share with you their perspectives and insights into the wonderful world of Seaweed. Many of you have travelled from across the motu to be here - we welcome you and look forward to spending time with you.

The summit theme “*Growing with Seaweed / Te Whakatipu Rimurimu*” and those of the sessions, acknowledge the areas identified by ANZSA members as being important to the growth and development of our sector, and align with the vision of a high value, nature positive seaweed sector for Aotearoa NZ. Sessions include regulation, high value market opportunities, Māori leadership, biosecurity and international perspectives. Underpinning these themes are the values of ANZSA that guide our behaviours, decisions and sector strategies to build intergenerational health and prosperity.

In the last year, ANZSA has been establishing meaningful relationships with MPI, government agencies, international expertise and local ITP's to ensure seaweed is firmly "on the agenda" and to encourage strategic investment into the sector. We have seen the release of the Seaweed Farming factsheet from MPI and ANZSA have held our first 'Member Meets' webinars to celebrate the work of our members who are forging ahead with seafood safety, market development, innovation, environmental restoration, and seaweed farming trials. We are working collectively to rise the tide for all.

We hope you thoroughly enjoy the 2023 Seaweed Summit. We hope that you gain knowledge from new and perhaps different perspectives, and we thank you for attending.



## Clare Bradley

### Chair of ANZSA

Clare has been the Chair of ANZSA since its inception in 2021. She has guided the organisation through the setup phase and is focussed on ensuring it continues to deliver value for its members.

Clare is CEO of AgriSea New Zealand an award winning, family owned seaweed company at the forefront of the biostimulant industry in NZ – they are a significant investor in research for the sector and have been working with farmers and growers for over 22 years. *AgriSea are sponsoring seaweed infused cocktails at the end of the Summit.*

# About The Summit

ANZSA are proud to bring you the second installment of the Aotearoa NZ Seaweed Summit in 2023. The first NZ Seaweed Summit was held in 2022, and had over 150 attendees.

The Summit is an opportunity to come together and learn from each other, and participate in the industry's development, whilst enhancing and protecting our natural environment and international reputation. As we navigate the way forward, we are extremely grateful to our Summit Sponsors, Southern Seaweeds, CH4 Global, and Sustainable Seas National Science Challenge. With an exciting list of speakers, this year's Summit is set to be even better.



## Jill Bradley Memorial Award

Jill Bradley was the founder of AgriSea NZ Seaweed Limited. A true leader in the field, she had a passion for the ocean and loved to share her knowledge, inspiring and encouraging the entrepreneurial pursuits of all she met. The Jill Bradley Memorial Award provides \$1,000 for the winner of the student poster session and \$500 for the runner up (total \$1,500 donated).

## Student Poster Session

A new and greatly anticipated addition to the Seaweed Summit in 2023, the Student Poster Session allows young researchers to display their work and get direct feedback from attendees.

Posters are eligible for the Jill Bradley Memorial Award, the winners of which will be presented by ANZSA Chair Clare Bradley.

## Summit Sponsors

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# How To Register

1

Go to our website  
[www.anzsa.org.nz](http://www.anzsa.org.nz)

2

Choose the conference event  
[2023 Seaweed Summit | ANZSA | Aotearoa New Zealand Seaweed Association](#)

3

Hit REGISTER NOW →  
Select Ticket type, Check out

4

Enter your details, pay, and  
receive booking confirmation



# Our Speakers



## Peter Green

Co-founder of Paxtier

Peter Green is the author of The Paxtier Report, a popular seaweed newsletter which delivers regular market updates to readers. Peter has been advising and building start-ups in the space for multiple years, and recently developed The World Bank's "Global Seaweed New and Emerging Markets Report 2023" alongside the Hatch Innovation Services team.



## Rebecca Lawton

Marine Ecologist – Waikato University

Dr Rebecca Lawton is a marine ecologist at the University of Waikato with broad interests and experience in applied environmental science. Rebecca works on multiple projects researching macroalgal cultivation and nutrient bioremediation. A particular focus of current research is the development of seeding and hatchery protocols for the kelp *Ecklonia radiata* and at-sea cultivation trials of hatchery seeded lines.



## Hsiao-Heng (Tony) Pan

Aquaculture Analyst - MPI

Tony is an aquaculture analyst for Fisheries New Zealand / MPI who works to help deliver on the aquaculture strategy.



## Marshall Bell

New Zealand Food Innovation Network

Marshall has supported business growth in food innovation and strategic consulting for over 10 years with micro-entrepreneurs to large multinationals. Trained in food science, culinary arts, design, and systems innovation, his focus is shaping the future of food in Aotearoa through effective partnerships and amazing products. Marshall currently works at the New Zealand Food Innovation Network to provide innovative solutions to customers and drive a strong innovation ecosystem to accelerate the growth of impactful food businesses.



## John Walsh

Director Readiness & Response Services - MPI Biosecurity NZ

John Walsh is responsible for overseeing the preparedness for and operational management of biosecurity responses in New Zealand. His team is currently running several large responses for exotic *Caulerpa*, plus a range of other long-term pest management programmes.



## Cecilia Biancacci

Seaweed Aquaculture Scientist –  
Cawthron Institute

Cecilia has completed research projects on aquaculture of sea urchins, red alga species, and Australian kelp cultivated alongside existing mussel and salmon farms. She is experienced in invertebrates, microalgae and macroalgae cultivation, particularly in phenology, biochemical composition, hatchery and field culture, processing, and novel techniques to scale-up production for a range of commercially important species.



## Karlotta Rieve

Project Manager – Hatch Blue

Karlotta is a project manager for Hatch Blue – a global accelerator, investment, and consultancy company that promotes aquaculture innovation. Her focus is to support the growing seaweed sector with industry insight gleaned from on-the-ground research. In the last 3 years she was able to visit over 100 seaweed operations around the world. She is the author behind the comprehensive Seaweed Insights website and lead a recent project for the World Bank Group on new and emerging market opportunities for seaweed.



## David Wilson

MPI Sector Acceleration Unit  
Programme Lead

David believes that the seaweed sector will play an important role in the development of aquaculture in Aotearoa. The Sector Acceleration unit operates within the Sustainable Food & Fibre Futures fund (SFFF) and utilises a strategic approach to identify the industry's most promising opportunities in achieving the goals of the government's Aquaculture Strategy. To date SFFF has invested \$5.4 million into seaweed projects around the country.



## Johan Svenson

Group Manager of Algal Research and  
Bioactives – Cawthron Institute

Johan joined Cawthron in 2019 as the Science Leader / Group Manager of Algal Research and Bioactives. His main areas of interest are marine natural products, marine biotechnology, medicinal chemistry, biomaterials, and anything algal. Johan co-leads Cawthron's development of an NZ algae sector by exploring collaborative R&D programmes to generate algal based products and novel bioactives for commercial applications.



**Laine Fisher** (Kāi Tahu, Moriori)  
Policy Manager at Te Puni Kōkiri

Laine is a Policy Manager at Te Puni Kōkiri overseeing the work on mātauranga Māori as a taonga and cultural and intellectual property. His team also coordinates the cross-government work programme on mātauranga Māori - Te Pae Tawhiti. He has a background in regulatory design and stewardship, working in several policy shops across government.



**Zoe Qu**  
Seaweed Aquaculture Scientist –  
Cawthron Institute

Zoe is a social-economic scientist with a strong commitment to bridging the divide between human activities and the natural environment, with particular focus on promoting nature-based solutions to combat climate change and mitigate biodiversity loss. She is committed to fostering understanding of the advantages nature confers upon humanity and devising effective strategies for safeguarding nature while simultaneously enhancing human well-being. Her fervour lies in actively engaging with communities, stakeholders, and government bodies to collectively shape a sustainable, enduring, and holistic vision for the future of Aotearoa.



**Tom Wheeler**  
Biochemist – Cawthron Institute

Tom is a protein biochemist working on algae as high-value foods characterising compositional attributes including the nutritional profiles, food safety, and health-promoting bioactivities of NZ endemic karengo species. He is investigating their potential as high-value food ingredients, including characterising their composition, physicochemical properties, digestibility, protein quality, and effects on post-prandial glucose uptake. He is also investigating the conditions for optimal growth and reproduction for farming of karengo and is working with iwi to support their priorities regarding karengo.



**Rob Major**  
Marine Ecologist – Cawthron Institute

Rob is passionate about improving the sustainability of, and adding value to, New Zealand's marine industries. His research focuses on sustainable fisheries technology, aquaculture spatial planning and using bioeconomic or statistical modelling to assess feasibility of innovative technology. This research has spanned a range of industries and applications including fisheries, aquaculture, biosecurity, and tidal energy. Rob has gained experience working stakeholders across worldviews (Mātauranga Māori, commercial and scientific) to achieve shared goals.



# Special Guest



**Wendy Nelson**  
Professor

Professor Wendy Nelson is a Senior Research Fellow at Tāmaki Paenga Hira Auckland Museum, and an honorary academic in the School of Biological Sciences at the University of Auckland. She specialises in marine phycology, particularly the discovery and documentation of New Zealand's algal biodiversity, with research on floristics, evolution and phylogeny, as well as ecology and life history studies.

Rimurimu – seaweed – is prized by Māori who use various species for food as well as rimurapa (bull kelp – *Durvillaea*) for storage. The first European explorers to collect and describe New Zealand seaweeds visited the region in the late 18th century. It was a further century until there were resident botanists working on macroalgae. The New Zealand archipelago extends from Rangitāhua (Kermadec Islands) at 29° in the north, to Motu Ihupuki (Campbell Island) at 52.32°, the southern of our subantarctic islands. This latitudinal range, the water masses in the region, and our long isolation from other land masses, all have contributed to a diverse and intriguing flora. In the past two decades there has been a very significant increase in the discovery and documentation of New Zealand rimurimu. But much remains to be done – when assessed in 2019 for the New Zealand Threat Classification System, fully 65% of the macroalgal flora was categorised as being data deficient.



Aotearoa has unique rimurimu flora



Long history of use by Māori



Deficient data

# Morning Agenda

7:30 - 8:30	<b>Student posters</b> Tea / coffee provided from 8:00am	
8:30 - 9:00	<b>Karakia/ Mihi Whakatau</b> Housekeeping – ANZSA opening address and update	Archdeacon Harvey Ruru Clare Bradley ( <i>Chair of ANZSA</i> )
9:00 - 09:35	<b>Global Update</b> <ul style="list-style-type: none"><li>• International research</li><li>• Global Review</li><li>• Q&amp;A (5 min)</li></ul>	Cecilia Biancacci ( <i>Cawthron</i> ) Karlotta Rieve ( <i>Hatch</i> ) Blair Wolfgram ( <i>Bluff NZ / ANZSA</i> ) - Facilitator
9:35 - 10:20	<b>Provenance &amp; Markets</b> <ul style="list-style-type: none"><li>• Global markets developments</li><li>• Provenance</li><li>• Q&amp;A (15min)</li></ul>	Peter Green ( <i>The Paxtier Report</i> ) Wendy Nelson ( <i>Auckland Museum</i> ) Hayley Fraser-Mackenzie ( <i>Pacific Harvest / ANZSA</i> ) - Facilitator
10:20-11:00	<b>Morning Tea</b>	
11:10-11:50	<b>Māori hautūtanga</b> <ul style="list-style-type: none"><li>• Māori-led industry research</li><li>• Active Protection of Mātauranga Māori throughout the value chain</li><li>• Q&amp;A (20min)</li></ul>	Clare Bradley ( <i>AgriSea / ANZSA Chair</i> ) Laine Fisher ( <i>Te Puni Kōkiri</i> ) Richard Laverty ( <i>Te Puni Kōkiri / ANZSA</i> ) - Facilitator
11:50-12:10	<b>Biosecurity</b> <ul style="list-style-type: none"><li>• Invasive Caulerpa Species – Update</li></ul>	John Walsh ( <i>MPI – Biosecurity NZ</i> )
12:10-1:30pm	<b>Lunch and Student posters</b>	

# Afternoon Agenda

1:30-2:30	<b>Aquaculture update</b> <ul style="list-style-type: none"><li>• GreenWave NZ update</li><li>• Farming Karengo in Aotearoa</li><li>• Reducing consenting barriers</li><li>• Q&amp;A (15 min)</li></ul>	Rebecca Lawton ( <i>University of Waikato</i> ) Tom Wheeler ( <i>Cawthron</i> ) Rob Major ( <i>Sustainable Seas / Cawthron</i> ) Dave Taylor (AQNZ / ANZSA) - Facilitator
2:30-3:00	<b>Regulatory &amp; Funding Impact</b> <ul style="list-style-type: none"><li>• MPI Regulatory update</li><li>• SFFF</li><li>• Q&amp;A (5 min)</li></ul>	Hsiao-Heng Pan [Tony] (MPI FNZ) David Wilson ( <i>Sustainable Food Fibre Futures</i> ) Richard Furneaux (Victoria University / ANZSA) - Facilitator
3:00-3:30	<b>Afternoon tea</b>	
3:30-4:30	<b>Future &amp; Tech</b> <ul style="list-style-type: none"><li>• Carbon Capture</li><li>• Marine Natural Products / Biotech</li><li>• Food Technology</li><li>• Panel Q&amp;A (20 min)</li><li>• Student Poster Award (10 min)</li><li>• Summit Close</li></ul>	Zoe Qu ( <i>University of Auckland</i> ) Johan Svenson ( <i>Cawthron</i> ) Marshall Bell ( <i>The Food Bowl</i> ) Volker Kuntzsch ( <i>Cawthron</i> ) – Facilitator Richard Furneaux & Clare Bradley Clare Bradley (Chair ANZSA)
4:30-5:00	<b>ANZSA AGM</b> <ul style="list-style-type: none"><li>• Constitution</li><li>• Finance</li><li>• Wrap up</li></ul>	Richard Laverty Blair Wolfgram Alex Pressman Clare Bradley
5:00-6:30	<b>Networking and Drinks</b>	Seaweed Vodka and Gin - Southward Distillery ( <i>sponsored by AgriSea</i> )

# Student Posters

## Decellularised seaweed as a novel biomaterial for treatment of skin wounds

[Caitlin Berry-Kilgour et al.](#)

Non-healing or large-scale wounds and their associated complications continue to present a large clinical burden. Scaffolds and skin substitutes have been engineered, but not all provide the physical, mechanical, and biochemical features necessary for skin repair. Decellularisation methods enable isolation of native extracellular matrix (ECM) from animal tissue, providing biocompatible scaffolds, but at high costs. Decellularised plants provide cellulose matrices with similarities to ECM, representing an abundant, ethical, low-cost alternative. This study aims to evaluate decellularize seaweed as scaffolds for skin repair.

## Investigating the ecophysiological services provided by *Ecklonia radiata*, in the face of coastal darkening and nutrient pollution

[Josie Mason & Caitlin Blain](#)

Ecophysiology: how the functioning of an organism is modified by its immediate environment — but additionally, how this modified functioning shapes the local ecosystem and environment in turn. Interest in the ecophysiology of kelp forests is growing, with global recognition of their high primary productivity and function as foundation species. This swell of interest has been accompanied by an eagerness to restore, conserve, and ultimately capitalise on the ecosystem services they provide. However, there are large knowledge deficits regarding how these vital habitats contribute to three regulatory services: 1) pH modulation, 2) carbon sequestration and 3) nutrient cycling. Furthermore, even less is known about how the anthropogenic stressors of coastal darkening and eutrophication may impact the efficacy of service provision.

## Creating opportunities for Bull Kelp aquaculture

[Jessica Roach et al.](#)

The Blue Economy Co-operative Research Centre is driving innovation in offshore developments to enhance renewable energy output, seafood production, and job creation, thereby transforming traditional blue economy sectors. This study focuses on the potential of large brown algae, specifically *Durvillaea poha* and *D. antarctica*, for offshore seaweed cultivation due to their wave energy tolerance and rich content of alginates and fucoidan. These polysaccharides, crucial in various brown algae, are especially abundant in this genus.

# F.A.Q.

Every question you ever wanted to ask about ANZSA and more.



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## Where do I find more information about ANZSA?

Visit our website and become a member: [www.anzsa.org.nz](http://www.anzsa.org.nz)  
We are also on LinkedIn: [www.linkedin.com/company/anzsa/](http://www.linkedin.com/company/anzsa/)

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## Who is the ANZSA Board?

ANZSA is currently run on a voluntary basis by a hard-working group of Board Members. Our current Board Members can be found here: <https://anzsa.org.nz/membership/>

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## Is it too late to submit a student poster?

Yes, the 2023 deadline for poster submission has closed but keep an eye out on the ANZSA website for details on how to submit a poster next year and be in to win your share of the Jill Bradley Memorial student prize award.

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## Why Seaweed?

We believe we have something special here in Aotearoa New Zealand – a vast, unique ocean environment which supports incredible biodiversity. We have many seaweed species, many of which are unique to our shores.

Seaweed has a growing number of applications across different industries and as the world begins to really understand the various benefits seaweeds have to offer, Aotearoa New Zealand is well placed to fill those needs.

We can grow seaweeds, in clean water, with a light touch on the environment, we are innovators, and guardians of our marine environment.

<https://anzsa.org.nz/why-seaweed/>



# Thank you!

If you have any questions, please get in touch with us.

ANZSA is currently run on a voluntary basis by a hard-working group of Board Members. If you or your organisation would like to help support these efforts, we welcome all the financial support you can offer.

For more information on sponsorship of ANZSA, please contact: [chair@anzsa.org.nz](mailto:chair@anzsa.org.nz)

## Contact Us

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