



Our objective is to enhance the value of New Zealand's marine resources, while providing a healthy marine environment for future generations.

News

Sustainable Seas community comes together at inaugural conference

More than 90 researchers came together in Wellington last week (2–3 May) for our first annual conference. They were joined for a special session by 56 Māori and Stakeholders who have engaged with Sustainable Seas.

Updates from the Challenge's 30 research projects, which involve scientists, economists, social scientists, policy experts, lawyers and mātauranga Māori, were given over two days. A main aim of the conference was to provide an opportunity for researchers to meet one another and have conversations about integrating their research.

Sir Rob Fenwick, Chair of the Board, noted that Sustainable Seas is unique for the sheer breadth of stakeholders exploring new ideas around a sustainable ocean.

The conference was the first opportunity for many of those directly involved to come together and get a feel for the big picture of Sustainable Seas.



Hon Paul Goldsmith, Minister of Science and Innovation, opened the special session for Māori and Stakeholders. *Photo: Hamish McCormick, Cine Timore Productions*

Hon Paul Goldsmith

Minister of Science and Innovation Hon Paul Goldsmith opened the special session for Māori and Stakeholders. As well as discussing the benefits of EBM and the 'considerable potential' our coastal and marine environments for helping to sustain jobs and opportunities for many New Zealanders, he thanked the researchers, Māori and Stakeholders.

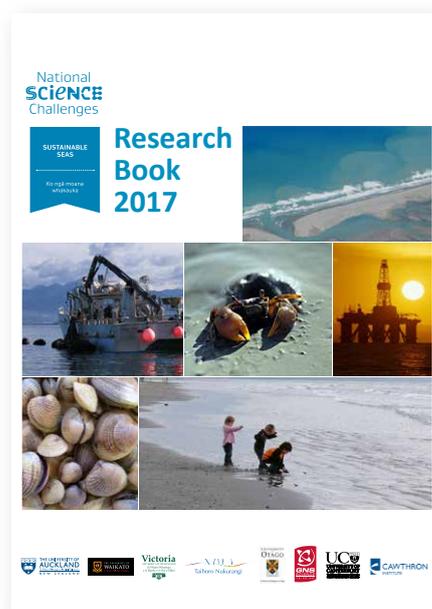
"I thank you all for your involvement with Sustainable Seas and for being here today. The work you do is important, and I encourage you to learn about the science on display here, and to engage with each other, to ensure that the Challenge fulfills its mandate."

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Research Book now available

With around 150 researchers from 26 organisations working on 30 projects there is a lot going on. Our new Research Book gives a plain English summary of each project.

The book is freely available to download from our website at sustainableseaschallenge.co.nz/resources-and-information – please feel free to share it.



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Ecosystem-based management

At the heart of Sustainable Seas is a concept called ecosystem-based management (EBM) – a holistic and inclusive way to manage the competing uses for, demands on, and ways New Zealanders value our marine environment. Addressing delegates, Sir Rob described how collaboration, guardianship and sustainability are central to EBM.

“EBM relies on great science and involves a high level of collaborative decision-making. It doesn't work unless everyone involved in the ocean is in the room having a say about their expectations and what they value in the ocean.

“It's important that there's enough of the ecosystem left behind that is healthy and robust and will continue into future generations,” he said.

Practical outcomes

Director Julie Hall noted Sustainable Seas is focused on producing practical tools, frameworks and knowledge that decision-makers can use to better manage marine resources. To achieve this, our research is interdisciplinary, collaborative and involves a high level of Māori and Stakeholder involvement from the start.



Blake Hornblow. Photo: Dave Allen, NIWA

New member for the Stakeholder Panel

We're pleased to welcome Blake Hornblow, who has joined our Stakeholder Panel as the youth representative.

Nelson native Blake has a long standing interest in all things marine. He's just finished a degree in Aquaculture and Fisheries at the University of Otago, and plans to do an MSc in marine conservation in 2018. As a Blake NIWA Ambassador he joined a 6-week oceanographic voyage in 2015 to the Ross Sea on RV Tangaroa, which was a “life-changing experience”.

Blake attended his first panel meeting on 6 April.

“Traveling to the pristine and rich biodiversity of the Ross Sea ignited my passion for the concept of sustainable and valuable oceans. I am excited to be involved in Sustainable Seas as I think it will make a real difference in assessing, valuing and managing our marine ecosystems for today and into the future.

“Until the meeting, I didn't realise how many sectors are involved – it was great to see so many voices represented, discussing and influencing the research that's happening, and trying to find a better way forward together.”

Nelson workshop for Māori and stakeholders

On 1 March, we held a workshop in Nelson for regional stakeholders and Māori. Their input was extremely valuable, and is helping guide us in developing tools to support ecosystem-based management (EBM).

The workshop was a chance for participants to:

- Share issues or concerns in Tasman and Golden Bays
- Learn about tools that can help to manage our marine environment
- Help identify scenarios that the tools we are developing will need to address

One of the comments perfectly summed up what the workshop – and the Challenge – is about: ‘If we're going to move forward, everyone needs to work together’.

There were representatives from Ngāti Tama, Te Ātiawa, Tiakina te Taiao, Te Rūnanga o Toa Rāngatira, Tiakina te Taiao Ltd, Tasman District Council, Nelson City Council, Marlborough District Council, MPI Aquaculture Unit, MPI Fisheries, Department of Conservation, Marine Farming Association, Sanford Limited, Forest and Bird, Friends of Nelson Haven & Tasman Bay, Nelson Forests, and the tourism/recreation industry.

A follow up workshop is planned later in the year. If you have an interest in marine resource management in Tasman and Golden Bays and your group/organisation was not represented but you would like to be involved, please contact sustainableseas@niwa.co.nz.



Connecting with our communities

As well as our workshop on 1 March and the special conference session for Māori and Stakeholders, we've been busy engaging in other ways.

Tiakina Te Taiao

Chris Cornelisen met with the Board on 28 February to discuss the tools we are developing, and extend an invitation to the Nelson workshop (see p2). Dana Clark also presented the Tipping Points project, and sought guidance in setting up experiments in Waimea and Delaware estuaries.

MPI – Future of our Fisheries

Julie Hall and Judi Hewitt gave the panel a presentation on 1 March, about the Challenge's written submission. They shared what Sustainable Seas is doing and how the tools and knowledge we develop will support the move to effective ecosystem-based management in New Zealand.

MPI – Science and Stakeholder workshops

On 30 March, Chris Cornelisen and Ian Tuck – along with representatives from NIWA, Cawthron Institute, Nelson City Council, Tasman District Council, and industry – attended a science workshop about factors affecting the scallop fishery in the Top of the South.

Ian Tuck attended a follow up workshop on 10 April for stakeholders (Māori, regional councils and industry) to share the science around the scallop fishery and health of Tasman and Golden Bays, and identify stakeholders' key research questions and aims. Some of these questions will likely align with Sustainable Seas.

Marlborough District Council – Environment and Planning Committee

On 16 March Julie Hall met with the Councillors to discuss the Challenge's research programmes, the work being done in Marlborough Sounds, and how research outside this area will be applicable to the region.

Ngāti Rārua, Ngāti Tama and Tiakina Te Taiao

On 4–5 April, Linda Faulkner, Dr Shaun Awatere, Dr Robert Joseph met with Ngāti Rārua and Ngāti Tama representatives as well as members of the Tiakina Te Taiao project team. Linda gave a research update and shared information about the upcoming conference. Shaun and Robert introduced their research projects, and there was a discussion on potential project links and collaborations.

Nelson Biodiversity Forum – Marine Working Group

Following a presentation to the Forum in December, Chris Cornelisen met with its Marine Working Group on 5 April, to discuss their marine strategy for Tasman and Golden Bays. The discussion identified synergies between the Forum and Sustainable Seas activities, where efforts can be aligned to benefit the region.

Research highlights

What do Kiwis value about our seas?

New Zealanders in Nelson, Golden Bay and Tauranga have told us what they appreciate most about our coastal and marine spaces.

In December and January, Dr Kate Davies and the Mauri Moana research team visited local events and markets in Nelson, Golden Bay, Tauranga and Waihi to ask New Zealanders what they value most about our coastal and marine spaces. They spoke to 308 people; 157 in Tauranga and Waihi, and 151 in Nelson and Golden Bay.

Dr Davies says: "We interviewed people from a wide range of ages and backgrounds, which was important because having a good representation of New Zealanders gives us a better idea of what the high priority social and cultural values are.

"Identifying these often intangible values is important because they are hard to measure – but the impact on society and people's wellbeing and quality of life when they're gone is massive. Knowing what's important to Kiwis means that we can develop ways to include these values when we're making decisions about how to protect and use marine resources."

Incorporating social and cultural values as well as economic factors into decision making is an important element of ecosystem-based management (EBM).

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Research highlights



Field work has begun for the Tipping Points project.

National estuary experiment gets off the (muddy) ground

Field work has begun for a national study assessing the potential risks and consequences of nutrient and sediment runoff on marine ecosystems.

Evidence from around the world shows that subtle but cumulative effects can suddenly and profoundly alter the way marine ecosystems function, and their ability to cope with changing conditions. These sudden changes are called 'tipping points', and they are almost always negative – for example a loss in a valuable resource such as fish or ecosystem services such as water purification.

Our tipping points experiment is assessing the potential for rapid changes in marine ecosystems, identifying what activities are likely to cause such changes, and identifying what parts of the ecosystem are likely to be most affected. This knowledge will help New Zealand's coastal management.

There are more than 20 sites in estuaries and harbours from Northland to Southland, including Whangarei, Whangateau, Mahurangi, Manukau, Raglan, Whitianga, Tauranga, Delaware Inlet, Nelson Haven, Banks Peninsula, Waimea Inlet, Blueskin Bay, and Jacobs River.

First national experiment

"This research is particularly exciting because it's the first marine experiment focusing on estuaries and harbours across the whole country," says Prof Simon Thrush, project leader and Director of the Institute of Marine Science at the University of Auckland.

"We're studying the two most influential factors affecting our coasts: nutrient and sediment runoff. We've selected sites with varying levels of sedimentation and are burying slow release fertiliser at each site to mimic increasing levels of terrestrial nutrients entering the estuary or harbour. Over the next 1–2 years we're monitoring the effect on the numbers of worms and shellfish and how the sediments get rid of these excess nutrients."

Worms and shellfish affect estuary health because they influence the ability of microbes to process nutrients.

The project involves researchers from NIWA and the universities of Auckland, Waikato, Canterbury and Otago.

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Unique Kiwi culture?

The team is still analysing the data, but say it's already clear that they have got important insights about how Kiwi culture and values are unique compared with other countries. For both Tauranga/Waihi and Nelson/Golden Bay, 'peace' was the top value.

"People used a variety of words and phrases, but the majority said they went to the beach or the sea to revitalise, reflect and get away from it all," says Dr Davies. "I've never seen a study where peace was the top value associated with an environment or public space – or even in the top five! This seems to be a unique Kiwi attitude."

Why does it matter?

There is already interest in the study from planners, policy makers and others because it confirms that there are important values that need to be identified and/or better understood so they can be incorporated into decisions about using and protecting marine resources.

Dr Davies presented the preliminary findings at the American Association of Geographers Annual Meeting on 8 April, in Boston.



The research team visited local events and markets in Nelson, Golden Bay, Tauranga and Waihi.

If you have feedback, news to share, or media enquiries please contact:
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