

NZ MARINE SCIENCES SOCIETY CONFERENCE



3 - 5 JULY 2018 | NAPIER CONFERENCE CENTRE

WEAVING THE STRANDS

DAY ONE: TUESDAY 3 JULY					
8:00	Registration Desk Opens				
9:00	Welcome and Conference Opening Rex Graham, HBRC Chair / Hilke Giles, NZMSS President / Ngahiwi Tomoana, Ngāti Kahungunu Chair				
10:00	MORNING TEA BREAK				
Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two		
Session	Special Session: Sustainable Seas	Special Session: Novel Technologies in Aquaculture. Kindly Sponsored by Auckland University of Technology	Fishing for the future		
Chair	Conrad Pilditch & Carolyn Lundquist	Ali Seyfoddin	Pamela Mace		
10:30	Sustainable Seas National Science Challenge: Where has the waka taken us? Julie Hall Sustainable Seas NSC, NIWA	Characterisation of New Zealand King Salmon Whole Blood for Immunological Assays Ronald Lulijwa Auckland University of Technology	A whole genome-level analysis of New Zealand tarakihi stock structure (Nemadactylus macropterus) Yvan Papa Victoria University of Wellington		
10:45	Tackling cumulative effects in Aotearoa New Zealand: a collaborative approach Kate Davies NIWA	Elevated CO2 impacts growth and respiratory performance in yellowtail kingfish (Seriola lalandi) aquaculture Hsiao-Heng (Tony) Pan University of Auckland	Changes in demersal fish assemblages along the East Coast of the South Island over the years Leonardo Durante University of Otago		
11:00	Biodiversity-Ecosystem function relationships and how tipping points transform ecosystems and inform sustainable management. Simon Thrush University of Auckland	Encapsulation technology: A tool to reduce feed wastage in aquaculture Seyedehsara Masoomi Dezfooli Auckland University of Technology	Maternal investment in the viviparous temperate reef fish H. percoides Stina Kolodzey University of Otago, Department of Marine Science		
11:15	Living through the Haze: How changes in light energy budgets determine depth distribution of habitat forming seaweeds Mareike Babuder University of Canterbury	Omics in aquaculture Tim Young Aquaculture Biotechnology Research Group	Modelling coastal fisheries under clima change Alice Rogers Victoria University of Wellington		
11:30	Ocean Physical Processes: A Foundation- Stone for Ecosystem Based Management Craig Stevens NIWA/UoA	Showcases of Metabolomics Applications in Studies of Bivalve Immunity Thao V. Nguyen Auckland University of Technology	The paradox of the Hauraki Gulf snapp population: does the nursery habitat concept apply? Darren Parsons NIWA		
11:45	Example of a decision-matrix approach for Tasman Bay and Golden Bay scallop ecosystem management using Bayes-Decision-Nets (BDNs) Jeremy McKenzie NIWA		The risk of commercial fishing risk to NZ sharks: how have we progressed ou understanding? Rich Ford Ministry for Primary Industries		
12:00	LUNCH Kindly Sponsored by Cawthron Institute				

Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two
Session	Special Session: Sustainable Seas (cont'd)	Biosecurity	Fishing for the future (cont'd)
Chair	Conrad Pilditch & Carolyn Lundquist	Kathy Walls	Martin Cryer
1:00	Using Gradient Forests to summarise patterns in species turnover across large spatial scales and inform conservation planning Fabrice Stephenson NIWA	Marine biosecurity, from conception to application Andrew Bell Ministry for Primary Industries	Understanding and predicting trawl codend selectivity in the New Zealand inshore fishery. Emma Jones NIWA
1:15	Bundles of ecosystem services provided by infaunal shellfish beds Vera Rullens <i>University of Waikato</i>	Marine biosecurity, from conception to application – Part 2 Andrew Bell Kathy Walls Ministry for Primary Industries	
1:30	Tāhuhu Matatau mo Te Ao o Tangaroa Regan Fairlie <i>Manaaki Te Awanui</i>	Bonamia ostreae in the New Zealand flat oyster Ostrea chilensis: details of a marine biosecurity response (Part 1) Henry Lane Ministry for Primary Industries	Why flux matters: marine snow, climate change and fisheries in the New Zealand region Matt Pinkerton NIWA
1:45	Transformational participatory processes in multi-use/r marine spaces: Is Aotearoa New Zealand (ANZ) leading the world? Richard Le Heron School of Environment, University Of Auckland	Bonamia ostreae in the New Zealand flat oyster Ostrea chilensis: details of a marine biosecurity response (Part 2) Anjali Pande Ministry for Primary Industries	Weaving the threads of climate change into the management of fisheries Mary Livingston Ministry for Primary Industries
2:00	PANEL DISCUSSION "Where is the waka going?"	Epibiotic pressure contributes to biofouling invader success. Kaeden Leonard University of Waikato	What can Fisheries New Zealand data and research do for you? Shelton Harley Fisheries New Zealand
2:15	Carolyn Lundquist / Conrad Pilditch	Modelling the spread of invasive species in New Zealand waters Samik Datta NIWA	
2:30	AFTERNOON TEA BREAK Kindly Spo	nsored by Boffa Miskell	
Session	Special Session: Metagenetics for improved monitoring Kindly Sponsored by Cawthron Institute	Special Session: Marine Biosecurity on the Frontline	Special Session: Biogeochemical- physical interactions in a changing climate
Chair	Anastasija Zaiko, Susie Wood, Xavier Pochon	Samantha Happy	Stephen Chiswell & Joanne O'Callaghan
3:00	Molecular detection of the mediterranean fanworm and club tunicate: comparing sampling methods and assessing the of persistence of environmental DNA Susie Wood Cawthron Institute	Invasive species vector management: The Northland Regional Marine Pathway Management Plan Sophia Clark Northland Regional Council	"Let's get bio-geochemico-physical": Decade scale monitoring in the Firth of Thames. Mark Gall NIWA
3:15	Molecular tools for implementing international ballast water regulations – insights from a cross-latitudinal en-route study Anastasija Zaiko Cawthron Institute	Marine Biosecurity in the Bay of Plenty "The Journey" Hamish Lass Bay of Plenty Regional Council	Biophysical characterisation of two sub- mesoscale eddies in Greater Cook Strait using underwater gliders Khush Jhugroo NIWA / University of Auckland

Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two	
3:30	Morpho-taxonomy and metabarcoding provide complementary data for surveillance of non-indigenous marine biofouling species Ulla von Ammon Cawthron Institute & University of Auckland	Marine Pest Management in Hawke's Bay Alice McNatty Hawke's Bay Regional Council	Oceanic extent of buoyant plumes from small rivers revealed by underwater gliders Joe O'Callaghan NIWA	
3:45	Plankton Planet: a citizen-based monitoring program of open-ocean plankton Xavier Pochon Cawthron Institute	Marine sentinels: update on the national Marine High-Risk Site Surveillance (MHRSS) programme for 2017–18 Chris Woods NIWA	Multi-Scale Ocean Physical and Biogeochemical Modelling: Trying to Get from the Shelf to the``Farm'' and Back Again Graham Rickard NIWA	
4:00		Risk profiling and compliance under the Craft Risk Management Standard for Biofouling Katie Lubarsky Ministry for Primary Industries	NZROCS: an ocean climatology of primary production in the NZ region. Pt 1: Model Setup Helen Macdonald NIWA	
4:15	Application of molecular assays for rapid diagnosis of paralytic shellfish toxin producing micro-algae in seawater and sediments Lincoln Mackenzie Cawthron Institute	Ships and partnership in the Prow Peter Lawless Top of The South Marine Biosecurity Partnership	NZROCS: an ocean climatology of primary production in the NZ region. Pt 2: Observations and model validation from Bio-Argo Stephen Chiswell NIWA	
4:30	Using genomics and transcriptomics to assess the impact of estuarine macroalgae on microbial communities and their roles in biogeochemical cycling Katie Worrallo University of Auckland	The invasive Mediterranean fanworm, Sabella spallanzanii, in the context of mussel farms in the Coromandel Sarah Brand University of Auckland	Plankton process and export fluxes in subtropical waters northeast of New Zealand Moira Décima NIWA	
4:45	Multispecies analysis of genetic diversity: emergent patterns across the Indo-Pacific Ocean and initiating a collaborative research network in New Zealand Libby Liggins Massey University Auckland	Understanding the spread of non- indigenous species Brett Beamsley Metocean Solutions		
5:45 - 8.00	Icebreaker at the Aquarium, kindly sponsored by Napier City Council and The National Aquarium			
8:00	Day One Concludes			

DAY TWO: WEDNESDAY 4 JULY				
8.45am Housekeeping				
9:00	Plenary 1: Paula Blackett, NIWA			
9:30	Plenary 2: Karin Bryan, University of Waikato			
10:00	MORNING TEA BREAK			
Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two	
Session	Special Session: Participation in the marine environment	Understanding Structure and Function	Changing coasts and oceans	
Chair	Paula Blackett and Oliver Wade	Judi Hewitt	Shane Kelly	
10.30	Collaboration and co-design in marine ecosystem recovery: The Ōngātoro/Maketū Estuary case Patrick Barrett University of Waikato	Biophysical feedbacks between eutrophication and sediment erodibility demonstrate cumulative effects of multiple stressors in estuaries Rebecca Gladstone-Gallagher University of Waikato	A biogeographic baseline of Taranaki sponge communities: assessing the effects of catchment runoff and reviewing stability of species assemblages. Samuel Mc Cormack University of Waikato	
10.45	Te Korowai o Te Tai ō Marokura Gina Solomon <i>Te Korowai o Te Tai ō Marokura</i>	Does calcium carbonate alter the functional resilience of coastal sediments to eutrophication-induced acidification? Tarn P. Drylie University of Waikato	Ecological and environmental tolerance to sedimentation of the brachiopod Calloria inconspicua in Otago Harbour Uru-Manuka Ming-Cheung Williams University of Otago	
11:00	The time is now! The Hawke's Bay Marine and Coastal Group. Oliver Wade Hawke's Bay Regional Council	Impact of long-term near future ocean acidification on the physiology of adult evechinus chloroticus Emily Joy Frost University of Auckland	Feeding on the fringe! The implications of mangrove removal for eagle rays. Helen Cadwallader University of Waikato	
11:15	Toka-tū-moana: navigating shellfish degradation, recovery promotion and uncertainty, a story of place-based participatory practice, policy and management. Kura Paul-Burke NIWA	Invertebrates, Indicators and the Integration of Marine Conservation and Management Jack O'Carroll EPA	Investigating the seasonal abundance of sperm whales at Kaikōura using robust design models. Tamlyn Somerford University of Otago	
11.30	Community leadership in coastal management Peter Lawless Top of The South Marine Biosecurity Partnership	Quantifying fish functional trait variation across depth and latitude. Elisabeth Myers Massey University	Long-term changes in reef fish assemblages in New Zealand's oldest marine reserve Harry Allard University of Auckland	
11.45	Panel Discussion – Participation in the Marine Environment wrap up	Ancient aquaculture and the translocation of toheroa — it's not just bull kelp! Vanessa Taikato University of Waikato	Mesozooplankton grazing and selectivity on natural prey communities during the 2017 CARIM mesocosm experiment Morgan Meyers University of Otago	
12:00	LUNCH Kindly Sponsored by	MetOcean / AGM (1 hour a	nd 30 mins)	

Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two	Breakout Room One	
Session	Science in Society	Understanding Structure and Function (cont'd)	Changing coasts and oceans (cont'd)	Managing the risk of Emerging Organic Contaminants (EOCs) in marine ecosystems	
Chair	Kate Davies	Simon Thrush	Chris Cornelisen	Virginia (Jinny) Baker	
1:30	Stakeholder processes to support spatial planning in the South Pacific high seas Martin Cryer <i>MPI</i>	Tetrodotoxin concentrations and its micro-distribution in the New Zealand clam Paphies australis Laura Biessy Cawthron Institute	Monitoring the disappearing Hauraki Gulf Lobster: Preliminary surveys across the Cape Rodney to Okakari point and Tawharanui Marine Reserves. Benn Hanns Institute of Marine Science, University Of Auckland	Workshop 1.30pm – 5.00pm Transdisciplinary science approaches for complex environmental problems. Drawing on the 'Emerging Contaminants' and proposed 'Microplastics' research programmes, this session introduces transdiciplinary approaches to explore the role of science in influencing complex social change. This is a 3 hour interactive session involving a series of short presentations and audience discussion. Workshop presenters include:	
1:45	The use of decision support tools to inform spatial planning of the South Pacific High Seas Carolyn Lundquist NIWA And University of Auckland	ROCKY REEF COMMUNITY ECOLOGY: Is there a Paradigm for the paradigms explaining pattern? Insight from Poor Knights Islands' marine caves. Christopher Battershill University of Waikato	Phylogeography of the New Zealand whelks Cominella maculosa and C. virgata (Gastropoda: Buccinidae) Kerry Walton Victoria University of Wellington		
2:00	Identifying emerging issues and priorities for the future of New Zealand marine science. Rebecca Jarvis Auckland University of Technology	The importance of macrofauna functional trait interaction for biogeochemical fluxes in marine sediments Stefano Schenone The University of Auckland	Pipi vs. the dredge! Tracking the recovery of Paphies australis following the Tauranga Harbour Capital edging Campaign. David Culliford University of Waikato		
				Louis Tremblay, Jamie Ataria, Virginia Baker, Grant Northcott, Graham Sevicke-Jones (Cawthron Institute, ESR, Environment Southland, Northcott Research Associates) Olga Pantos (ESR)	
2:15		Elevated turbidity and the nutrient removal capacity of seagrass Richard Bulmer NIWA	Rapid responses of Antarctic coastal benthic communities to recent sea ice breakouts Drew Lohrer NIWA	A research project to manage emerging organic contaminants Louis Tremblay Cawthron Institute/ University of Auckland	
2:30	Factors Underlying Community Support of Different Decommissioning Options for Offshore Oil and Gas Structures Carmen Lau Victoria University of Wellington	Long tongues and wet patches – when is moist wet enough for toheroa? Phil Ross University of Waikato	The impact of increased mud sedimentation in Waiwera Estuary on whole and nitrogen cycling microbial communities. Jian Sheng Boey University of Auckland	Microplastics in Wellington Harbour Olga Pantos Institute of Environmental Science and Research	
2:45			Tracking the movements of tuna and sharks around New Zealand and the South Pacific. Brittany Graham NIWA		

3:00	AFTERNOON TEA BREAK				
Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two	Breakout Room One	
Session	Science in Society	Understanding Structure and Function (cont'd)	Unravelling Biology	Managing the risk of EOCs in marine ecosystems – cont'd	
Chair	Richard Le Heron	Drew Lohrer	Jeff Shima		
3:30	Don't forget the Toheroa Eaters — the importance of incorporating humans into ecosystem thinking Phil Ross University of Waikato	Establishing new marine reserves: Using species presence data to increase conservation of biodiversity India Merrick University of Auckland	The midget octopus, Octopus huttoni, a victim of parasitism Erica Donlon University of Otago		
3:45	A symbiotic relationship: An ethnographic account of a Northland community and their toheroa Jacinta Forde University of Waikato	Increasing turbidity and tipping points in New Zealand kelp forests Nick Shears University of Auckland	Colours of octopus studied using spectrometry and digital photography Yusuf Hussain Qureshi University of Auckland		
4:00	Eyes in the water: expanding our knowledge of rare and subtropical fishes in North East New Zealand using citizen science. Irene Middleton Massey University	What's underneath the water?" Helen Neil <i>NIWA</i>	Effects of moonlight on larval fish growth, dispersal, and connectivity Jeff Shima Victoria University of Wellington		
4:15	Water Sensitive Design and Community Science Cat Davis Morphum Environmental	Latitudinal isotopic variability in suspended particulate organic matter validates Southern Ocean isoscapes and informs megafaunal trophic ecology Sarah Bury NIWA	Sweepstake reproductive success in the grey mullet (Mugil cephalus), and temporal fractioned genetic diversity between adults and juveniles Balam Jimenez Victoria University of Wellington		
4:30	The Earth Summit 25 years on: why is biodiversity continuing to decline? Steve Urlich Marlborough District Council	Speed Talk Session *Steph Mangan – Sustainable Seas *Elisabeth Slooten – Fishing for the Future *Sarah Bury – Innovating through Technology	The Big Old Fat Fecund Female Fish (BOFFFF) hypothesis; are big old female snapper (Chrysophrys auratus) actually fat? Armagan Sabetian Auckland University of Technology		
4:45		Environmental drivers of the fine-scale foraging distribution of sperm whales Marta Guerra University of Otago	What can octopus see? A behavioural study of visual acuity. Luis Nahmad-Rohen University of Auckland, Institute of Marine Science		
5:00-5:30	John Morton Award Presentation				
5:45		Young Professionals Function at the Emporium, kindly sponsored by Dragonfly			
8:00	Day Two Concludes				

	DAY TH	REE: THURSDAY 5 JULY		
8.45	Housekeeping			
9:00	Plenary 3: Melissa Foley: Auckland Council			
9:30	Plenary 4: Gabby O'Connor: NIWA			
10:00	MORNING TEA BREAK			
Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two	
Session	Examining ecosystems	Special Session: The State of the Marine Environment	Special Session: Kaikoura earthquake	
Chair	Chris Batershill	Hannah Jones & Michael Townsend	David Schiel	
10:30	Use of mangrove habitat by Threatened or At-Risk birds in New Zealand Jacqui Bell Boffa Miskell Ltd	The challenges with choosing a magic number Pete Wilson Waikato Regional Council	Massive changes to form and function of rocky reef communities following the Kaikoura earthquakes: an overview David Schiel University of Canterbury	
10:45	Are trait-based functional groups better predictors of benthic ecosystem functioning than constituent species? Grady Petersen NIWA	WFD OMBT, NZ: WTF? Michael Townsend NIWA	What lies beneath subtidal habitats along the Kaikoura coastline postearthquake Robyn Dunmore Cawthron Institute	
11:00	Population demographics of sevengill sharks (Notorynchus cepedianus) in Sawdust Bay, Stewart Island. Robert Lewis University of Otago	The use of sedimentation rate as a practical indicator of estuary ecosystem health Stephen Hunt Waikato Regional Council	Paua population biomass estimates and monitoring following the Kaikoura earthquake Tom McCowan Paua Industry Council Ltd.	
11:15	Quantifying the transfer of terrestrial organic matter into the Kaikōura and Hokitika submarine canyons using bulk and compound-specific stable isotopes Daniel Leduc NIWA	Assessing ecosystem health in a multi- indicator world Judi Hewitt NIWA	The effects of the Kaikōura Earthquake on sperm whales Marta Guerra <i>University of Otago</i>	
11:30	The habitat use of a resident population of bottlenose dolphin in Doubtful Sound: implications for the design of MPAs Stephanie Bennington Otago University	State of the Hauraki Gulf / Tīkapa Moana / Te Moana-nui-a-Toi Shane Kelly Coast and Catchment	A trifecta of earthquakes, marine heatwaves and weedy competitors threatens bull kelp (Durvillea) along the South Island of New Zealand Mads Thomsen University of Canterbury	
11:45	Poster Session followed by Lunch, K	Cindly Sponsored by Coast and Catchr	ment	
Session	Examining ecosystems (cont'd)	State of the Marine Environment (cont'd)	Special Session: Kaikoura earthquake (cont'd)	
Chair	Darren Parsons	Hannah Jones & Michael Townsend	David Schiel	
1:15	Developing fish based indicators for Ecosystem Based Fishery Management: A Chatham Rise case study Rikki Taylor University of Auckland	Coastal water quality states and trends in Hawke Bay: a review of 15 years of satellite data. Ben Knight Cawthron Institute	Assessing the recovery of juvenile black- footed abalone (pāua) and habitat following the uplift and reconfiguration of the Kaikōura coastline Shawn Gerrity Marine Ecology Research Group - Univ. Of Canterbury	
1:30	Discovering and analysing the diversity and distribution of coralline algae in southern New Zealand Brenton Twist University of Auckland	Habitat mapping for the Waikato Region Coastal Marine Area: Bathymetry and substrate type Sarah Gardiner Metocean Solutions	Compromised ecological engineering across uplift gradients along the Kaikōura coast Leigh Tait NIWA	
1:45	Modelling the movement and behaviour of a marine top predator in a remote ecosystem Leena Riekkola University of Auckland	100% of the World Ocean floor mapped by 2030 Contribution of the South and West Pacific Regional Data Assembly and Coordination Centre to the Nippon Foundation-GEBCO Helen Neil NIWA	Co-seismic seafloor landslides and canyon change associated with the 2016 Kaikōura Canyon flushing event Joshu J. Mountjoy NIWA	

Location	Large Exhibition Hall	Small Exhibition Hall	Breakout Room Two	
2:00	Does size matter? The effect of bivalves on ecosystem functioning in sandflats Sam Thomas University of Otago	The multivariate Benthic Health Model: a standardised and sensitive approach to assessing estuary health across New Zealand Dana Clark Cawthron Institute and University of Waikato	Co-seismic turbidites along the southern Hikurangi margin triggered by the Kaikōura earthquake Alan Orpin NIWA	
2:15	Behavioural ecology of Bryde's whales Sahar Izadi <i>University of Auckland</i>	Tracking waste from aquaculture into infauna communities in the Marlborough Sounds; combining community and biochemical data in a quantitative analysis Rebecca McMullin University of Otago	Mapping change - Kaikōura to Cape Campbell Rachel Gabara Land Information New Zealand	
2:30	Benthic and pelagic copepod bioassays show ecotoxicity of urban estuarine sediment Louis Tremblay Cawthron Institute/University of Auckland		Organic carbon transfer to the deep ocean by a co-seismic turbidity current event during the Kaikōura earthquake Scott Nodder NIWA Wellington	
2:45	AFTERNOON TEA BREAK			
Session	Examining ecosystems (cont'd)	Innovating through Technology	Special Session: Kaikoura earthquake (cont'd)	
Chair	Joe O'Callaghan	Ben Knight	Richard Ford / David Schiel	
3:15	Passive acoustic monitoring reveals unknown beaked whales' echolocation signals and sperm whales' foraging off eastern New Zealand. Giacomo Giorli NIWA	Neural Networks Trained with Known Algal Blooms Events and Satellite Images for Bloom Detection K. L. Eddie Law The Open University of Hong Kong	Recovery of rocky intertidal invertebrates following earthquake disturbances Islay Marsden University of Canterbury	
3:30	Seasonal variation in diversity and distribution of pelagic seabirds over the Otago shelf and canyons Will Rayment University of Otago	Near real-time forecasting of contamination risks to shellfish harvests and beaches Brett Beamsley Metocean Solutions	Structural changes in intertidal rocky reefs following the 2016 Kaikoura earthquake Tommaso Alestra University Of Canterbury	
3:45	Tipping points in ecosystem function: microbial enzyme activities in estuarine sediments identify thresholds in nutrient cycling Candida Savage University of Otago / University of Cape Town		The deep-sea fauna of Kaikoura Canyon: impacts of the November 2016 earthquake and evidence for trophic subsidies from river catchments Daniel Leduc NIWA	
4:00	Characterisation of particulate organic matter cycling during a summer North Atlantic phytoplankton bloom using amino acids stable isotopes Amandine Sabadel University of Otago		Impacts of the 2016 Kaikōura earthquake on breeding habitat and population of the Hutton's shearwater (Puffinus huttoni). Lorna Deppe Hutton's Shearwater Charitable Trust	
4:15			Distribution and extent of rocky reef habitats, Kaikoura Helen Neil (presenter TBC) NIWA	
4:30	NZMSS Award Presentation			
5:15-5:30	Conference Closing			
6:30	Conference Dinner and Awards Ceremony at the Conference Centre			





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