

NZOAC and PI-TOA Newsletter

As part of the 2023 NZOAC Conference Rachel Hale led a discussion to identify potential future NZOAC actions. Of the 16 actions considered, attendees perceived the following three as the most important: re-engage with policy-makers, maintain funding for current observation platforms (NZOA-ON), and focus on solutions during engagement actions. Please contact Rachel Hale (NIWA) if you have questions or would like to contribute to these actions. Thanks to Rachel for leading this exercise, and also to the entire conference organising committee: Joanna Copedo, Jess Ericson, Norman Ragg, Rachel Hale, Vonda Cummings, and Lea Muetzel.

In January, the NZOAC Council will say farewell to the 2023 student members (Mari Deinhart and Tyler Feary) and will welcome the 2024 student members: Lea Muetzel and Ian Dixon-Anderson. The NZOAC Council is looking for 1 or 2 new full members. Contact NZOAC Council Chair Mary Sewell before 15 December if you would like to nominate yourself or someone else.

Ocean acidification in the New Zealand and the Pacific

- New Zealand's three-yearly <u>Our atmosphere and climate</u> report discusses the predicted impacts of OA on New Zealand. This report is complemented by a series of <u>digital</u> <u>StoryMaps</u>, including one on <u>Ocean & Biodiversity</u>.
- Caroline Jackson's recent MSc Thesis presents the use of <u>satellite observations to evaluate</u> OA patterns around Hawai'i.
- <u>SPREP</u> highlighted the signing of the Biodiversity Beyond National Jurisdiction (BBNJ) Treaty
 <u>by seven Pacific Island countries</u>: The Federated States of Micronesia, Fiji, Palau, Republic of
 the Marshall Islands, Samoa, Solomon Islands, and Tuvalu.
- Will Doughty (Kaikōura District Council chief executive) and Dr Tim Davie (Environment Canterbury chief scientist) discussed climate change and earthquake risks for small districts. They highlighted OA as a risk, and the need for councils to work together to address the challenges.
- In their recent Nature Climate Change paper on reproducibility in OA research, Sean Connell (University of Adelaide) and Jonathan Leung (Shantou and Guangdong Ocean Universities) discuss the "decline effect" in new discoveries, including OA. The authors suggest that "scientific novelties can polarize a discipline where researchers fail to distinguish between different motivations for testing a phenomenon, that is, its existence (theory proposal) versus its influence within ever-widening contexts (theory development). Where context dependency is high, the lack of reproducibility may not represent a crisis but a part of theory development and eventual gravitation towards a consensus position." Read a summary of their work in Behind the Paper.

Resources

The MEASO (Marine Ecosystem Assessment for the Southern Ocean) <u>Summary for</u>
 <u>Policymakers</u> has just been released. This report, which summarises the expected impacts of OA and other stressors on the Southern Ocean, is the result of a 5-year effort by 203 scientists to assess the status and trends in Southern Ocean ecosystems.

- The <u>OA Alliance's</u> new <u>Perspective on marine CO₂ removal</u> calls for scientists, experts, resource managers, and policy makers to come together to "outline, prioritize, and conduct the research and evaluation needed to assess the implications of different mCDR strategies for ocean acidification"
- Researchers from XiamenUniversity and Scripps Institution of Oceanography describe the development a smartphone-based pH sensor for citizen science OA monitoring.
- <u>Back to Blue</u> and <u>Commonwealth Blue Charter</u> will host an in-person and live stream OA event on 14 November: <u>Ocean Acidification</u>: a threat to marine ecosystems and economies in the Commonwealth and beyond.
- Consider taking a few minutes to <u>answer a few short questions</u> to help the South Ocean OA
 Hub identify aims, themes, and challenges.
- Streaming: OA Research for Sustainability <u>OARS Commitments Video</u>.
- **Streaming:** Learn about Básico's efforts to create <u>a verification platform for ocean alkalinity</u> enhancement efforts.
- **Streaming:** NIWA's Dr. Kim Currie is featured in The New Zealand Marine Studies Centre created a video for teachers The Ocean of Tomorrow: Episode 1 with Kim Currie.
- Streaming: NOAA's OC Program A Closer Look at Ocean Alkalinity Enhancement

Selected recent articles from our members

- <u>Tolerance of three temperate macroalgal taxa to marine heatwaves of differing durations</u> and intensities is not modulated by irradiance, Krieger E.C.; Sarid-Segal Y.; et al., Phycologia
- Effect of dissolved iron (II) and temperature on growth of the Southern Ocean phytoplankton species Fragilariopsis cylindrus and Phaeocystis antarctica, Aflenzer H.; Hoffmann L.; et al., Polar Biology
- <u>Juvenile waiting stage crown-of-thorns sea stars are resilient in heatwave conditions that</u> bleach and kill corals, Byrne M.; Deaker D.J.; et al., Global Change Biology
- <u>Histopathological changes in the greenshell mussel, Perna canaliculus, in response to chronic thermal stress, Copedo J.S.</u>; Webb S.C.; et al., Journal of Thermal Biology
- Nouméa: A new multi-mission calibration and validation site for past and future altimetry missions?, Chupin C.; Ballu V.; et al., Ocean Science

ECOPs (early career ocean professionals) and outreach happenings

- Join the ECOP Program My Coastline Outreach Campaign, deadline 19 November 2023.
- International Climate Protection <u>Fellowship</u>, deadline **1 February 2024**.
- Listen to the latest Ocean Insight Podcast <u>The value of local and indigenous knowledge for better ocean management</u> by MeerWissen.

Conferences, events, and workshops

- Coastal Futures 2024 (hybrid) 2024, London, UK, 24 -25 January 2024
- Ocean Sciences, New Orleans, 18 23 February 2024
- XI SCAR Open Science Conference (Antarctic Science: Crossroads for a New Hope), Pucón, Chile, 19 - 23 August 2024
- <u>IMBIZO 7</u> (Transitioning towards sustainable ocean governance by 2030: Commitments and Challenges), Rabat, Morocco, **23 26 September 2024**

International opportunities

- The International Association for the Physical Sciences of the Oceans (IAPSO) is <u>inviting</u>
 applications for Best Practice Study Groups in the period 2024-2025. Deadline: 15 November
 2023.
- Launch of <u>calls for posters and presentations at the UN Decade conference in Barcelona</u> 2024. Deadline **1 December 2023**.

- The Commonwealth Blue Charter Secretariat has released an RFQ for a consultant to <u>convert</u> existing OA course material into an e-learning format. Deadline: **15 December 2023**.
- Applications are open for the upcoming <u>Bright Tide</u> Regenerative Farming/Aquaculture Accelerator Programme. Learn more and <u>apply here</u> by **22 December 2023.**
- The Kelp Forest Alliance has just launched the first <u>Kelp Forest Photo Awards</u>. Deadline 14
 February 2024.
- Explorers Club Discovery Expedition Grants, rolling deadlines.
- <u>Inclusivity and Diversity Participation Funding</u> available by FutureEarth, rolling deadlines.

Jobs

- <u>Associate Research Fellow in Marine Predatory Ecology</u> with Deakin University, Melbourne, Australia. Closes 11 November.
- Research Assistant, Marine Predator Ecology with Deakin University, Melbourne, Australia. Closes 11 November.
- <u>Senior Scientific Officer (Marine Fieldwork)</u> with Macquarie University in Sydney, Australia. Closes **12 November**.
- <u>Laboratory Technician</u> with the Australian Institute of Marine Science in Townsville, Australia. Closes 12 November.
- <u>Technical Officer</u> with the Australian Institute of Marine Science in Townsville, Australia. Closes **12 November**.
- <u>Research Team Leader</u> with the Australian Institute of Marine Science in Darwin, Australia.
 Closes 19 November.
- <u>Research Scientist Megafauna and Threatened Species Ecology</u> with the Australian Institute of Marine Science in Darwin, Australia. Closes 19 November.
- <u>Team Leader Aquatic Ecology</u> with the Waikato Regional Council in Hamilton, New Zealand. Closes 19 November.
- <u>Research Scientist Observational Physical Oceanography</u> with the Australian Institute of Marine Science in Townsville, Australia. Closes 19 November.
- Ecologist with Cawthron Institute in Nelson, New Zealand. Closes **22 November**.
- <u>Postdoctoral Research Fellow- Climate Science</u> with the University of Queensland in Brisbane, Australia. Closes **24 November**.
- <u>Lecturer or Senior Lecturer in Coastal Processes</u> with the University of Waikato in Hamilton, New Zealand. Closes **24 November**.
- <u>Climate Change Project Development Specialist</u> with the Pacific Community in Nouméa, New Caledonia. Closes **26 November**.
- Experimental Scientist Fish Ecologist with the Australian Institute of Marine Science in Darwin, Australia. Closes **4 December**.
- <u>Research Scientist Benthic Ecology</u> with the Australian Institute of Marine Science in Darwin, Australia, Closes 4 December.
- <u>PhD Using optical coherence tomography and vibrometry to understand hearing in crustaceans</u> with the University of Auckland in Auckland, New Zealand.
- <u>PhD Developing the aquaculture potential of Queensland microalgal bloom management strategies</u> with Central Queensland University in Queensland, Australia.
- PhD Replenishment of reef fish populations: are adaptive reproductive tactics fit-forpurpose in a changing world? with Victoria University of Wellington in Wellington, New Zealand.
- <u>PhD Dissecting primary production in dark environments</u> with Monash University in Melbourne, Australia.

If you have news, opportunities, resources, or a published article you'd like included in the next newsletter, let us know by replying to this e-mail.

If you would like to subscribe to the NZOAC / PI-TOA newsletter mailing list, reply with "Subscribe" in the subject line. If you would like to unsubscribe from this mailing list, reply with "Unsubscribe" in the subject line.

Cheers,

Christina McGraw (University of Otago), Rebecca Zitoun (IMOS), Kim Currie (NIWA), Lea Muetzel (University of Otago)