



NZOAC December Newsletter

The wide range of ocean-related COP26 side events in November brought attention to the urgency of addressing OA. We would like to highlight New Zealand and Tokelau's contribution to three events that shared this message: [Inclusive Ocean Acidification Action – Science to Society](#), [Raising Ambition at COP26 to Deliver SDG14.3](#), and [Building resilience of ecosystems and communities to ocean acidification: The Tokelau Experience](#).

Closer to home, NZOAC members Sally Carson and Hanna Ravn (New Zealand Marine Studies Centre) were part of a recent [collaborative project](#) that developed activities and experiments to support science education for Pacific students in New Zealand and the Pacific Islands. After a successful trial at Otago, seven project kits have been shared with schools in Tonga, where [educators are using the kits](#) to engage Pacific students in conversations about climate change and OA.

The newsletter team will be enjoying a beautiful southern hemisphere summer, so we'll see you again for the February newsletter.

Ocean acidification in New Zealand

- Karen Scott discusses COP26 and OA in The Conversation ([COP26's ocean acidification failure: States must protect the world's oceans](#)).
- Applications are now open for the postponed [Integrating Environmental, Organismal and Community Complexity into Ocean Global Change Research](#) Gordon Research Conference (17 - 22 July), which is co-organised by NZOAC member Mary Sewell. The 2-day pre-conference seminar ([Synthesizing Approaches to Predict Species Responses to Global Change](#)) is an opportunity for ECOPs to present and exchange new data and ideas.
- Check out the [Jobs](#) section below to learn about two new OA-related PhD opportunities in New Zealand.

Acidification, fisheries, and aquaculture

- NZOAC member Norman Ragg (Cawthron) contributed to a recent paper examining the [impact of Covid-19 on the aquaculture supply chain](#). The paper includes suggested strategies to address future disaster-driven responses and mitigation measures.
- NOAA recently highlighted the Skokomish Tribe's aquaculture efforts in support of [economic diversity, climate resilience, and the maintenance of cultural roots](#).

Resources

- The shallow coral reef coverage of the [Allen Coral Atlas](#) includes 2 million satellite images. This freely available resource is already being used by 14 countries to develop 48 new marine planning projects.
- [The Ocean Decade at COP26](#) report highlights ocean challenges, Decade Actions (including [OARS](#)), and ECOP opportunities.
- The [Research Handbook on Ocean Acidification Law and Policy](#) is a guide to addressing OA under national, regional and global governance frameworks. Watch the book launch [here](#).

Upcoming webinars

- [Thinking pink: Investigating the impacts of ocean acidification and warming on larval Oregon pink shrimp](#), Michelle Baotran Nguyen, University of Oregon (Young Scientist Webinar Series), **15 December 2021**.

Recent webinars (now available for streaming)

- The [UN Ocean Decade Regional Kick-off for the Western Pacific](#) is now available to watch.
- **COP26: Inclusive Ocean Acidification Action – Science to Society** (Commonwealth Pavilion), [Polar Oceans: Acidification, Warming and Freshening](#) (Cryosphere Pavilion), [Raising Ambition at COP26 to Deliver SDG14.3](#) (Commonwealth Pavilion), [Expanding ocean acidification observing capacity to take action](#) (SDG Pavilion), and [Building resilience of ecosystems and communities to ocean acidification: The Tokelau Experience](#) (Moana Blue Pacific)

Recent articles from our members

- [The aquaculture supply chain in the time of covid-19 pandemic: Vulnerability, resilience, solutions and priorities at the global scale](#), Mangano, M.C., Berlino, et al, Environmental Science and Policy
- [Southern Ocean contribution to both steps in deglacial atmospheric CO₂ rise](#), Ronge, T.A., Frische, M., Fietzke, J., Stephens, A.L., Bostock, H., Tiedemann, R., Scientific Reports
- [Physiological responses of juvenile New Zealand geoduck \(*Panopea zelandica*\) following emersion and recovery](#), Sharma, S., Venter, L., Alfaro, A.C., Ragg, N.L.C., Delorme, N.J., Zamora, L.N., Comparative Biochemistry and Physiology - Part D: Genomics and Proteomics
- [The effects of live transport on metabolism and stress responses of abalone](#) (*Haliotis iris*), Alfaro, A.C., Nguyen, T.V., Venter, L., Ericson, J.A., Sharma, S., Ragg, N.L.C., Mundy, C., Metabolites
- [Echidnas of the sea: The defensive behavior of juvenile and adult crown-of-thorns sea stars](#), Deaker, D.J., Balogh, R., Dworjanyn, S.A., Mos, B., Byrne, M., Biological Bulletin
- [Identifying phytoplankton using raman spectroscopy](#), Novikova, N.I., Matthews, H., Williams, I., Sewell, M.A., Nieuwoudt, M., Simpson, M.C.S., Broderick, N.G.R., Optics InfoBase Conference Papers
- [Cloning and selfing affect population genetic variation in simulations of outcrossing, sexual sea stars](#), Hart, M.W., Guerra, V.I., Allen, J.D., Byrne, M., Biological Bulletin
- [The waiting stage, prolonged residency in nursery habitats by juveniles of the predatory sea star *marthasterias glacialis*](#), Byrne, M., Minchin, D., Clements, M., Deaker, D.J., Biological Bulletin
- [Knowledge gaps in the biology, ecology, and management of the pacific crown-of-thorns sea star, *acanthaster sp.*, on Australia's great barrier reef](#), Pratchett, M.S., Caballes, C.F., et. al, Biological Bulletin
- [Essential outcomes for COP26](#), Smith, P., Beaumont, L., et. al, Global Change Biology,

ECOPs (early career ocean professionals) and outreach happenings

- Are you curious about the effect of OA on squid brains? NZOAC member **Jodi Thomas** made it to the Asia Pacific 3 Minute Thesis Semi-Finals for her presentation [Rising CO₂ levels affect the 'inkredible' squid brain](#).
- Otago's **Future Ocean Research Theme** welcomed six new research summer students: Alyssa Mohd Sukri (Chemistry), Elouan Hay-Fourmond (Chemistry), Henry Hollis (NIWA), Jack Coakley (Marine Science), Jordan Sparrow (Botany and Marine Science), and Meg Threlfall (Marine Science and Chemistry).
- The Association of Polar Early Career Scientists (APECS) and the Southern Ocean Observing System (SOOS) are searching for three ECOPs to join their community as [APECS representatives](#). (**17 December 2021**).

- Applications for the [Pacific Islands Graduate Fellowship on OA research and resilience](#) are now open for an ECOP in pursuit of a Masters degree in the Pacific Islands (**22 March 2022**).
- ECOPs in USP member countries are eligible to apply for a [Pacific Scholarship for Excellence in Research & Innovation \(PSERI\)](#) for a Masters degree or PhD at USP.

Conferences, events, and workshops

- [International Ocean Data Conference](#) (virtual), **14-16 February 2022**
- [Ocean Sciences Meeting 2022](#) (hybrid), **27 February - 4 Mar 2022**
- [2022 Conference for Shellfish Growers](#), **7 - 8 March 2022**
- [The 8th International Symposium on Gas Transfer at Water Surfaces](#) (hybrid), **17 - 20 May 2022**
- [Integrating Environmental, Organismal and Community Complexity into Ocean Global Change Research \(Gordon Research Conference\)](#), New Hampshire, USA, **17 - 22 July 2022**
- [The 5th International Symposium on the Ocean in a High CO2 World](#) (in person), **13 - 16 September 2022**
- [NZOAC - 15th NZOAC Conference](#), Nelson, New Zealand, **2 - 3 November 2022 (TBC)**

International opportunities

- Call for [2022 SCOR Visiting Scholars](#) is now open (**15 December 2021**).
- Request for proposals for the [Pathways communication grants](#). The grant supports the dissemination of findings via printed or digital publications (policy briefs, factsheets, brochures, white papers, short reports, videos, audios, data visualisation). (**31 January 2022**)
- [JETZON](#), a UN Ocean Decade endorsed Programme, is seeking new members! They act as a focal point for all Twilight Zone (100m-1000m) studies from any perspective, including physics, biogeochemistry, and/or ecology.
- Nominations for members of the [The Ocean Knowledge Action Network \(KAN\)](#) Steering Committee (SC). The Ocean KAN is a modern network-of-networks that was created by a team of scientists, journalists, and stakeholders to promote the co-design and co-creation of ocean science for sustainable development (**15 December 2021**).
- Call for “carbon-relevant” data [cruise submissions](#): GLODAPv2.2022. (**17 January 2021**)

Jobs

- [PhD Opportunity - Quantifying Blue Carbon](#) with Victoria University and NIWA in Wellington, New Zealand. Contacts: Scott Nodder (Scott.Nodder@niwa.co.nz) and Joe Zuccarello (joe.zuccarello@vuw.ac.nz)
- [PhD Opportunity - Geochemistry and Oceanography](#) with the University of Otago and NIWA in Wellington, New Zealand. Closes **31 December 2021**. Contact: Clif Law (cliff.law@niwa.co.nz)
- [Technical Team Leader](#) with the University of Waikato in Tauranga, New Zealand. Closes **7 December 2021**.
- [Ranger Marine Reserves](#) with the Dept. of Conservation in Kaikoura, New Zealand. Closes **7 December 2021**.
- [Postdoc - Coral Resilience & Restoration](#) with the University of Hawaii in Kaneohe, HI, USA. Closes **11 December 2021**.
- [National Sea Simulator Technical Officer](#) with the Australian Institute of Marine Science in Northern Queensland, Australia. Closes **14 December 2021**.
- [Mana Island Ranger](#) with the Dept. of Conservation in Mana Island, New Zealand. Closes **15 December 2021**.
- [Project Manager/Senior Principal Fisheries Management Officer](#) with the Department of Natural Resources and Environment Tasmania in Launceston, Australia. Closes **15 December 2021**.

- [Research Fellow in Coastal Processes & Sedimentology](#) with Victoria University in Wellington, New Zealand. Closes **17 December 2021**.
- [Research Associate - Marine Ecosystems Remote Sensing](#) with the University of Tasmania in Hobart, Australia. Closes **20 December 2021**.
- [Research Associate - Ecological Modelling](#) with the University of Tasmania in Hobart, Australia. Closes **20 December 2021**.
- [Research Associate - Aquatic Design and Bioengineering](#) with Plant & Food Research in Nelson, New Zealand. Closes **22 December 2021**.
- [Research Associate - Antarctic/Southern Ocean Modelling](#) with the University of Tasmania in Hobart, Australia. Closes **4 January 2022**.
- [Fisheries Scientist](#) with the National Institute for Water and Atmospheric Research (NIWA) in Wellington, New Zealand. Closes **20 January 2022**.
- [Teaching Fellow - Marine Sciences](#) with the University of Otago in Dunedin, New Zealand.
- [Hatchery Assistant](#) with the Cawthron Institute in Nelson, New Zealand. Closes **10 January 2022**.
- [Aquaculture Technician](#) with the Cawthron Institute in Nelson, New Zealand.
- [Consultant](#) with JASCO Applied Sciences in Brisbane, Australia.
- [Project Scientist](#) with JASCO Applied Sciences in Brisbane, Australia.
- [Senior Marine Scientist](#) with GHD in Brisbane, Australia.
- [Principal Ecologist](#) with Cardno in Sydney, Australia.
- [Senior Ecologist](#) with Cardno in Sydney, Australia.
- [Shellfish Hatchery Technician](#) with Victorian Shellfish Hatchery in South West Coast Victoria, Australia.
- [Aquaculture Diver](#) with Petuna Aquaculture in Launceston, Australia.
- [Marine & Freshwater Taxonomist](#) with SLR Consulting in Nelson, New Zealand.
- [Associate/Principal - Marine Science Consultant](#) with SLR Consulting in Nelson, New Zealand.
- [Marine & Environment Consultant](#) with RPS in Melbourne, Australia
- [Marine Technician](#) with Australian NAVY in Hobart, Tasmania, Australia.
- [Postdoc - Moana Project](#) with the University of Waikato in Hamilton, New Zealand.
- [Postdoc - Marine Global Change Ecology Lab](#) with the University of Massachusetts Amherst in Amherst, MA, USA.
- [Postdoc - Dept. of Rosenstiel School of Marine and Atmospheric Science](#) with the University of Miami in Miami, FL, USA.
- [Postdoc - MAP Shellfish Stock Assessment](#) with the Virginia Institute of Marine Science in Gloucester, VA, USA.
- [Postdoc - San Francisco Bay River Plume](#) with Rutgers University, Dept. of Marine & Coastal Science in New Brunswick, NJ, USA.
- [Postdoc - Fisheries Conservation](#) with the University of Washington in Seattle, WA, USA.
- [Postdoc - Fisheries Simulation Modelling](#) with Saltwater, Inc. in Anchorage, AK, USA.

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 mailing list, reply with "Subscribe" in the subject line. If you would like to unsubscribe from the NZOAC mailing list, reply with "Unsubscribe" in the subject line.

Cheers,

Christina McGraw, Habibeh Hashemi, Jesse Vance, Rebecca Zitoun, and the NZOAC Council