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California Ocean Observing Systems Science Impact and Stakeholder Engagement Meeting

May 23rd - 25th, 2022
Avila Beach, CA

Agenda

After two years of virtual meetings, we look forward to hosting an engaging three-day in-person Science Impact and Stakeholder Engagement meeting!

Arrive Monday afternoon to tour Cal Poly Pier ocean observing sensors followed by dinner at Muligan's Bar and Grill. On May 24th and 25th, we will hear about the state of the science in regards to Climate Variability, Ocean Acidification and Hypoxia, Harmful Algal Blooms, and Biodiversity and Ecosystem Health, with an emphasis on climate impacts, as well as an update on California's New Blue Economy. We will provide a discussion platform following each thematic session to identify knowledge gaps and stakeholder needs and how we can improve strategic alignment among our CalOOS partners. Join us Tuesday evening for a cocktail hour sponsored by Axiom Data Science, a tetra tech company, and CODAR on the Sun Deck overlooking Avila beach with poster visits and technology displays!

For those that are not able to attend in-person, the speaker presentations will be shared on [Zoom](#) for virtual attendance and made available after the meeting. However, the microphone system is not ideal for remote participation, but we will do our best to monitor questions and feedback in the chat window.

If you have not yet [registered](#) for the meeting, please do so now. The event is free, but [please register](#) so we can have an accurate headcount for side events, food, and beverages.

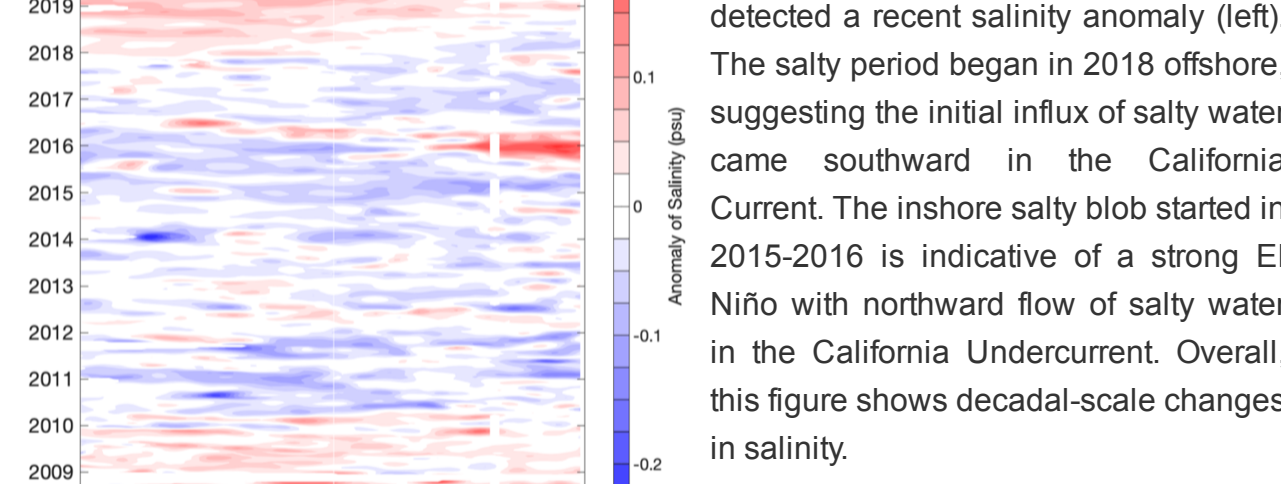
Click [here](#) for the meeting objectives and agenda!



SCCOOS Board of Governors Annual Meeting

The SCCOOS [Board of Governors](#) met in person and virtually on April 14th at the Southern California Coastal Water Research Project in Costa Mesa, CA. We began with presentations from the IOOS office (Director Carl Gouldman) and IOOS Association (Director Josie Quintrell). Dr. Clarissa Anderson provided updates on the SCCOOS subsystems, SCCOOS mission and vision statement, high-level goals, and priority projects. SCCOOS also welcomed new Board of Governor members Dr. Benjamin Ruttenburg, Director of Center for Coastal Marine Sciences at Cal Poly State University SLO and Matt Classen, the new Executive Director of TMA BlueTech. Other sessions included a CeNCOOS update from Dr. Henry Ruhl. Panel discussions were held on the New Blue Economy, Diversity, Equity, Inclusion, and Accessibility (DEIA), Modeling, Water Quality and Biodiversity, and the Coastal Climate Signal.

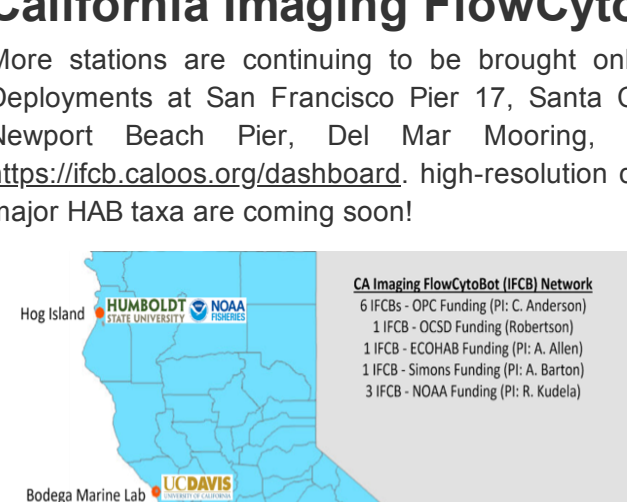
Here is a link to the [meeting agenda and presentations](#).



Dr. Ben Ruttenburg, Cal Poly State University SLO,
Director of Center for Coastal Marine Sciences

Matt Classen, TMA BlueTech, Executive Director

What's New in the Field?



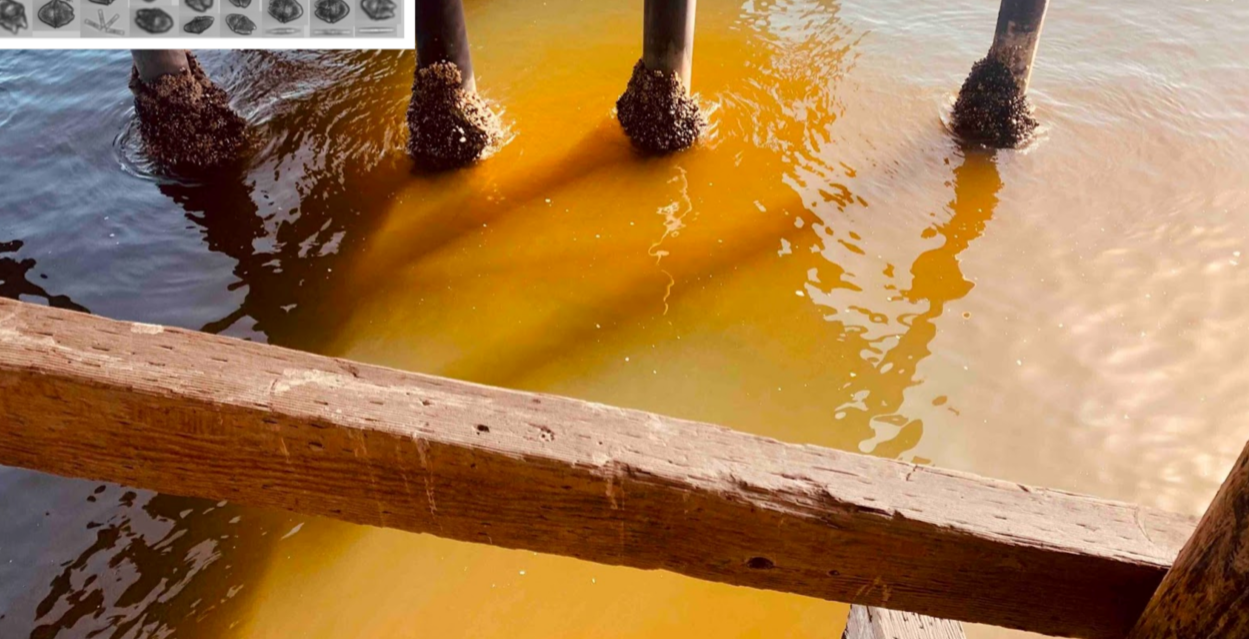
Glider line 90 off Dana Point salinity anomaly (Dan Rudnick, SIO)

CA Underwater Glider Network

Southern California glider missions have detected a recent salinity anomaly (left). The salty period began in 2018 offshore, suggesting the initial influx of salty water came southward in the California Current. The inshore salty blob started in 2015-2016 is indicative of a strong El Niño with northward flow of a salty water in the California Undercurrent. Overall, this figure shows decadal-scale changes in salinity.

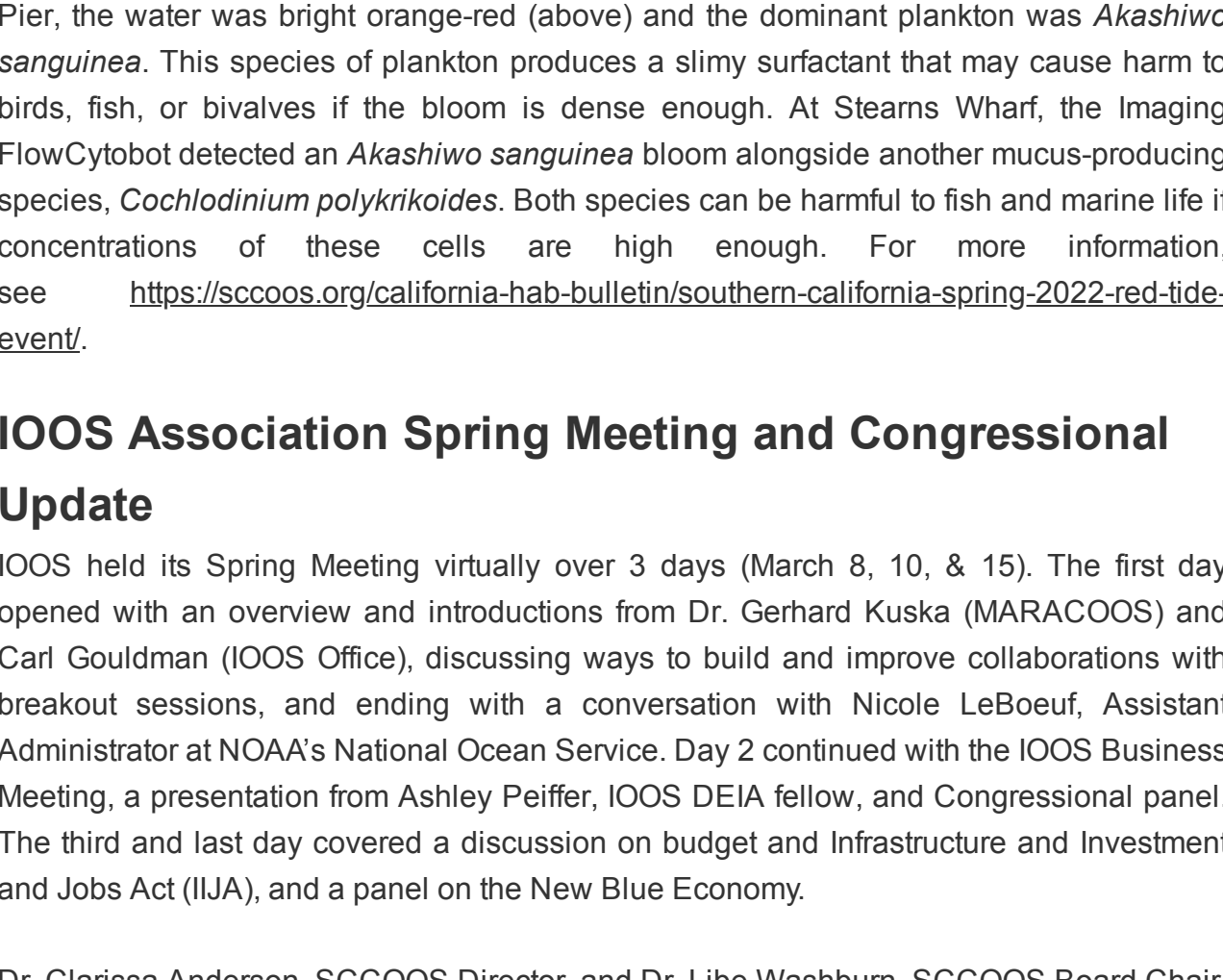
California Imaging FlowCytobot (IFCB) Network

More stations are continuing to be brought online, with about 7 stations running in real-time. Deployments at San Francisco Pier 17, Santa Cruz Wharf, MBARI Power Buoy, Stearns Wharf, Newport Beach Pier, Del Mar Mooring, and Scripps Pier. Data are available at: <https://ifcb.caloos.org/dashboard>. high-resolution data products with quantitative abundances of the major HAB taxa are coming soon!



Left: Locations of IFCB stations. Right: Mosaic from 16 March 2022 illustrates the latitudinal and environmental variation in species, from dinoflagellate blooms to diatom blooms.

Spring 2022 Red Tide Event



A large dinoflagellate bloom discolored water at the Newport Beach Pier in April 2022 (photo credit: Brittany Stewart, USC). Imaging FlowCytobot at Newport Beach Pier analysis indicates the bloom is from *Akashiwo sanguinea* (inset).

A Red Tide occurred throughout Southern California in late April. At Scripps Pier, a very visible red tide moved onshore and spread throughout La Jolla. The species responsible for the dark red water is *Lingulodinium polyedra* (*L. poly*). This is the species known to bloom frequently in the area and produces bioluminescence at night. At Newport Beach Pier, the water was bright orange-red (above) and the dominant plankton was *Akashiwo sanguinea*. This species of plankton produces a slimy surfactant that may cause harm to birds, fish, or bivalves if the bloom is dense enough. At Stearns Wharf, the Imaging FlowCytobot detected an *Akashiwo sanguinea* bloom alongside another mucus-producing species, *Cochlodinium polykrikoides*. Both species can be harmful to fish and marine life if concentrations of these cells are high enough. For more information, see <https://sccoos.org/california-hab-bulletin/southern-california-spring-2022-red-tide-event/>.

IOOS Association Spring Meeting and Congressional Update

IOOS held its Spring Meeting virtually over 3 days (March 8, 10, & 15). The first day opened with an overview and introductions from Dr. Gerhard Kuska (MARACOOSS) and Carl Gouldman (IOOS Office), discussing ways to build and improve collaborations with breakout sessions, and ending with a conversation with Nicole LeBoeuf, Assistant Administrator at NOAA's National Ocean Service. Day 2 continued with the IOOS Business Meeting, a presentation from Ashley Peiffer, IOOS DEIA fellow, and Congressional panel. The third and last day covered a discussion on budget and Infrastructure and Investment and Jobs Act (IIJA), and a panel on the New Blue Economy.

Dr. Clarissa Anderson, SCCOOS Director, and Dr. Libe Washburn, SCCOOS Board Chair, met virtually with state legislators to ask for their continued support of IOOS by signing the FY 23 IOOS Appropriations Request [House Dear Colleague letter](#) led by Representatives Pingree (D-ME), Carbajal (D-CA), and Posey (R-FL) and the [Senate Dear Colleague letter](#) led by Senator Jeanna Shaheen (NH) and Senator Jerry Moran (KS). Thank you to the 21 [California House Representatives](#) and [Senator Dianne Feinstein](#) for showing their support of California's Ocean Observing Systems by signing the Dear Colleague letters!

Funding and Job Opportunities

- [California Ocean Protection Council \(OPC\) Call for Proposals to Build Coastal Resilience in California](#) - Letters of Intent due June 13, 2022
- [U.S. Department of Energy announces \\$26 Million for Research on Next-Generation Data Management and Scientific Data Visualization](#)
- [IOOS Association Executive Director](#)
- [San Diego Canyonlands Restoration Technician](#)
- [Ocean Visions Program Director](#)
- [Smithsonian's Marine Global Earth Observatory \(MarineGEO\) Program Manager](#)
- [OPC Coastal Habitats Program Manager](#) - Deadline May 23, 2022
- [California Sea Grant State Fellowship](#) - Deadline: July 20, 2022

Recent Workshops, Conferences, and Webinars

SCCOOS has co-organized, participated in, and presented at several virtual workshops over the past few months. Meeting programs, notes, and presentations are available by clicking the links below.

- Feb 2: LA/LB Harbor Safety Committee Meeting, virtual
- Feb 9-10: ESON Workshop, virtual - C. Anderson presented
- Feb 18: USCG Commandant Adm Karl Schultz Visited SIO and met with SCCOOS
- Feb 22 & 28: CeNCOOS Governing Council meeting - C. Anderson presented
- Mar 4: [Ocean Sciences Meeting](#) - Climate Session, C. Anderson Chair
- Mar 8 & 15: IOOS Spring Meeting, virtual
- Mar 11: UN Decade of the Ocean - Observing Air Sea Interaction Strategy (OASIS) Program Chairs attended the Ocean Acidification Research for Sustainability (OARS) satellite laboratory - C. Anderson presented on behalf of OASIS
- Mar 11: Climate and Fisheries Virtual Dialogue - C. Anderson presented
- Mar 16: NHABON Webinar #3 - C. Anderson Co-Chair
- Mar 16, 17 & 21 - Congressional Meetings with House staff, virtual - C. Anderson and L. Washburn
- Mar 24-25: NAML Public Policy Meeting, virtual
- Apr 12: US CLIVAR Ecological Forecasting Workshop, WHOI - C. Anderson presented
- Apr 14: SCCOOS Board of Governors Meeting, Costa Mesa, CA - SCCOOS host
- Apr 18: PCMHAB "Harmful Algal Bloom Community Technology Accelerator" Transition Advisory Committee annual meeting - SCCOOS host
- Apr 20: Baja AquaFarms SIO Visit - SCCOOS host
- Apr 26: NOAA West Watch Webinar
- Apr 28: CA IFCB Network Meeting, virtual - SCCOOS led
- May 1: Marine Medicine Conference, La Jolla, CA - C. Anderson presented
- May 6 - TMA BlueTech Event
- May 9-13: [GlobalHAB Modeling Workshop](#), Glasgow, Scotland - C. Anderson co-host
- May 11 and 13: IOOS Federal Advisory Council - [Agenda](#)

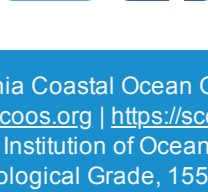
Upcoming Activities

- May 16-19: [National Center for Ecological Analysis and Synthesis \(NCEAS\)](#) MPA Working Group, Santa Barbara, CA
- May 24-25: California Coastal Ocean Observing Systems Science Impact and Stakeholder Engagement Meeting, Avila Beach, CA - [Agenda](#)
- Jun 1: [Observing Air-Sea Interactions Strategy \(OASIS\) Workshop: Air-Sea Observations for Offshore Wind Energy](#), virtual
- Jun 3: [BOEM California Intergovernmental Renewable Energy Task Force](#)
- Jun 10: Scripps Pier Research Symposium, La Jolla, CA - [register](#)
- Jun 14-16: [IOOS DMAC Meeting](#), virtual
- Jun 20-23: [OCB Annual Meeting](#), Woods Hole, MA
- Jun 23: CeNCOOS MPA LTM Brown Bag Webinar
- Jun 28-30: NOAA Fisheries, Biogeochemical (BGC) Argo Workshop
- [MPA Collaborative Network Ask the Researcher MPA Monitoring Series](#)
 - May 26: Rocky Intertidal Habitats
 - Jun 23: Ocean Conditions Observing Systems
 - Jun 24: Sandy Beach and Surf Zone Ecosystems
 - Jul 18: California Collaborative Fisheries Research Program
 - Jul 20: Commercial and CPVF Fisheries
 - Aug 9: Estuary Ecosystems
 - Aug 11: Mid-Depth Rocky Habitats
- Aug 15-19: [OceanHackWeek](#), hybrid
- Sep 12-13: [2nd National Workshop on Marine Environmental DNA](#), Costa Mesa, CA
- Sep 14-17: [Eastern Pacific Ocean Conference](#), Mt Hood, OR
 - Abstract Submission now open!
- Sep 19-22, 2022: [Marine Technology Society \(MTS\) Buoy Workshop](#), Wilmington NC
- Oct 27-29: [UG2 Workshop](#), Seattle, WA
- Nov 8-10: IOOS Fall Meeting & All-Hands Meeting, San Juan, PR
- Nov 14-18: [TMA BlueTech Week](#), San Diego, CA
- Dec 12-16: [AGU Fall Meeting](#), Chicago, IL
- Jan 8-12: [103rd AMS](#), Denver, CO

Recent Publication

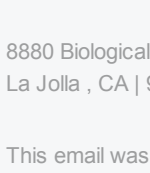
SCCOOS PIs are in bold.

- Kudela, R.M., **C. Anderson**, and H. Ruhl. 2021. The California Harmful Algal Bloom Monitoring and Alert Program: A Success story for coordinated ocean observation. Pp. 84–85 in *Frontiers in Ocean Observing: Documenting Ecosystems, Understanding Environmental Changes, Forecasting Hazards*. E.S. Kappel, S.K. Juniper, S. Seeyave, E. Smith, and M. Visbeck, eds. A Supplement to *Oceanography* 34(4), <https://doi.org/10.5670/oceanog.2021.supplement.02.30>.
- Grigoratou, M., Montes, E., Richardson, A.J., Everett, J.D., Acevedo-Trejos, E., **Anderson, C.**, Chen, B., Guy-Haim, T., Hinners, J., Lindemann, C., Garcia, T.M., Möller, K.O., Monteiro, F.M., Neeley, A.R., O'Brien, T.D., Palacz, A.P., Poulton, A.J., Prowse, A.E.F., Rodriguez-Santiago, A.E., Rousseau, C.S., Runge, J., Saad, J.F., Santi, I., Stern, R., Soccodato, A., Váge, S., Vogt, M., Zervoudaki, S. and Muller-Karger, F.E. (2022), The Marine Biodiversity Observation Network Plankton Workshops: Plankton Ecosystem Function, Biodiversity, and Forecasting—Research Requirements and Applications. *Limnology and Oceanography Bulletin*. <https://doi.org/10.1002/lob.10479>
- Steele, T. S., Brunson, J. K., Maeno, Y., Terada, R., Allen, A. E., Yotsu-Yamashita, M., ... & Moore, B. S. (2022). Domoic acid biosynthesis in the red alga *Chondria armata* suggests a complex evolutionary history for toxin production. *Proceedings of the National Academy of Sciences*, 119(6), <https://doi.org/10.1073/pnas.2117407119>
- U.S. Environmental Protection Agency Region 9. Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response
- Gallo, N. D., Bowlin, N. M., Thompson, A. R., Satterthwaite, E. V., Brady, B., & **Semmens, B. X.** (2022). Fisheries Surveys Are Essential Ocean Observing Programs in a Time of Global Change: A Synthesis of Oceanographic and Ecological Data From US West Coast Fisheries Surveys. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2022.757124>
- Free, C. M., Moore, S. K., & Trainer, V. L. (2022). The value of monitoring in efficiently and adaptively managing biotoxin contamination in marine fisheries. *Harmful Algae*, 114, 102226. <https://doi.org/10.1016/j.hal.2022.102226>
- OSM Poster - Ruhl HA, **Anderson CR**, Edwards CA, Low NHN, **La Valle FF**, LaScala-Gruenewald DL, Drake PT, Bochenek R, Kahru M, Daniel P, and Joxco MG. Integrated ocean observing systems for assessing marine protected areas across California. California Department of Fish and Wildlife Report.
- Southern California Health & Air Quality: Using Remote Sensing to Detect the Frequency and Drivers of Red Tide Blooms in California to Assist in the Management of Human and Marine Exposure to Algal Toxins. NASA DEVELOP National Program California – Ames
- Ren, A. S. and **D. L. Rudnick**. (2022). Across-shore propagation of subthermocline eddies in the California Current System. *Journal of Physical Oceanography*; <https://doi.org/10.1175/JPO-D-21-0137.1>
- **Garcia-Reyes, M.**, Thompson, S. A., Rogers-Bennett, L., & **Sydeman, W. J.** (2022). Winter oceanographic conditions predict summer bull kelp canopy cover in northern California. *PloS one*, 17(5), e0267737. <https://doi.org/10.1371/journal.pone.0267737>
- James, C. C., Barton, A. D., Allen, L. Z., Lampe, R. H., Rabines, A., Schulberg, A., ... & Allen, A. E. (2022). Influence of nutrient supply on plankton microbiome biodiversity and distribution in a coastal upwelling region. *Nature Communications*, 13(1), 1-13. <https://doi.org/10.1038/s41467-022-30139-4>



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