May

2019

The PIER Review

Welcome to the May 2019 issue of the PIER Review, the monthly GOA-ON Pier2Peer newsletter. The Review highlights accomplishments, provides updates for our members, highlights open-access research on ocean acidification, and shares funding or job opportunities. Please send all of your ideas for the newsletter to Alicia Cheripka (alicia.cheripka@noaa.gov) and we will be sure to incorporate your feedback into future editions of The PIER Review.

P2P FEATURE

Pier2Peer at the GOA-ON meeting

GOA-ON recently held its 4th International Workshop in Hangzhou, China, where over 250 participants from more than 60 countries gathered. Participants with a range of ocean acidification research interests [from monitoring to modeling to societal impacts], participated in the GOA-ON workshop, which also included an exciting networking opportunity for early career researchers through the Pier2Peer Program (P2P). A total of 38 members, mentors and mentees, of the Pier2Peer Program presented their research and participated in engaging discussions about the future of ocean acidification science and impacts to society. A number of new Pier2Peer Program members and mentor-mentee pairs also came out of this meeting. We are looking forward to seeing these collaborations grow!

A Pier2Peer Program mentee, Patricia Castillo-Briceno from Ecuador, was selected to give a plenary talk at this years GOA-ON Workshop. Her talk, titled “International Technical Support is a Key Factor to Develop Ocean Acidification in Developing Countries- Ecuador Experience”, explored issues that can arise when a country is focused on more visible problems (like plastic pollution) rather than hard to see environmental challenges such as ocean acidification. The main goals of Patricia’s work are to establish an integrative research program in equatorial ecosystems and fill in knowledge gaps, while incorporating outreach to decision makers and other relevant stakeholders (aquaculture managers, scientists, public). International events and trainings have had a big impact and highlighted ocean acidification in the national scientific and political agenda for her region. Patricia shared her research group’s experiences and factors that helped them to create an ocean acidification research emphasis in a developing tropical country such as Ecuador.

Patricia Castillo-Brienco giving her plenary talk on April 16, 2019 at the GOA-ON Workshop in Hangzhou, China. Photo credits: Made by 4th

Do you have an exciting accomplishment or experience with the Pier2Peer program you would like to share? Send it to Alicia Cheripka (alicia.cheripka@noaa.gov) and you could be featured!

BECOME A Pier2Peer RECRUITER

We are recruiting senior and experienced OA observing experts to serve as mentors. If you know someone who would be a good mentor, direct them to the Pier2Peer website or put them in contact with Alicia Cheripka (alicia.cheripka@noaa.gov).

If you are attending a meeting or event, are interested in sharing a few slides on the program and disseminating sign-up information, please email Alicia and we will send you communication materials and sign-up sheets for your upcoming event. And thanks!

JOIN THE OA INFO EXCHANGE

The OA Information Exchange (OAIE) is a place to swap ideas, share resources, and interact with people in a variety of disciplines across many regions. This includes your mentor or mentee!
Members can:
-post updates and comments with questions, answers or announcements
-share papers, media files, presentations and links
-add events and host webinars
-join teams based on regions and topics of interest
-meet new people from a variety of fields

Scientists, citizen scientists, educators, NGO and government employees, resource managers, fishers, aquaculturists, concerned citizens, and others are all welcome to take part in the OA Information Exchange community! You can join here.

UPCOMING EVENTS and CONFERENCES

International Alliance to Combat Ocean Acidification OA Alliance Webinars

May 8, 12pm PST- Bronte Tilbrook, Libby Jewett, Jesse Vance, and Caren Braby will be discussing (1) Tools and methodology for ocean acidification monitoring; establishing SDG 14.3.1 indicator to ensure average marine acidity (pH) is measured consistently (2) Report out from the recent Global Ocean Acidification Observing Network (GOA-ON) annual workshop; shaping GOA-ON to better meet the information needs of global and local decision makers (3) Leveraging observing networks to better understand terrestrial coastal interactions and (4) Building a regional inventory of federal and local monitoring assets; uses for decision makers. You can register for this webinar by emailing the organizer here.

May 20, 10am PST- Join the OA Alliance as they discuss the OA issues affecting a wide range of (1) Natural Resources Defense Council: Describing ocean acidification impacts on economies and communities, focus on state and local decision makers. (2) Alaska Ocean Acidification Network: Assessing key species vulnerability and describing potential impacts, focus on commercial and local fishing communities (3) Plymouth Marine Laboratory: Showing ocean acidification in a multi-stressor environment, focus on international decision makers.(4) Suquamish Tribe: Ocean acidification curriculum collection, focus on public and tribal school curriculum.(5) New Zealand Marine Studies Centre: Ocean acidification and the marine world, focus on secondary school curriculum. You can register for this webinar by emailing the organizer here.

The Eleventh Western Indian Ocean Marine Science Association (WIOMSA) Scientific Symposium will be held at the University of Mauritius from **1-6 July 2019**. The Symposium will bring together practitioners, academics, researchers and students to share knowledge, experience and solutions to the challenges experienced in our coastal and marine environment. The specific objectives of the symposium are to: Present current knowledge, provide a forum for discussion, exchange of information and experiences on coastal and marine science issues in the Western Indian Ocean region, promote interaction among social and natural scientists in order to strengthen multi and trans-disciplinary research for sustainable management of the coastal and marine environment and to identify gaps and priority research areas for improved management of the coastal and marine environment of the Western Indian Ocean region.

27th International Union of Geodesy and Geophysics (IUGG) General Assembly will be held in Montreal, Canada from **8-18 July 2019**. Section **P08-Coastal Ocean Acidification**, along with various other sessions, are relevant to ocean acidification. This symposium will highlight new research in coastal acidification, including changes in biogeochemistry; complexities associated with other ocean processes (e.g., freshwater mixing; hypoxia; multiple stressors); impacts on ecosystems and economies; and modeling and projection of future OA.

OceanObs'19 is part of a decadal conference series on setting ocean observation priorities to be held on **16-20 September 2019** in Honolulu, Hawaii, U.S.A. On-site registration will be

available and the poster deadline has been extended to **27 June 2019**. The OceanObs'19 conference will celebrate tremendous progress across regional, national, and global ocean observation networks and strengthen user connections to enhance these systems over the coming decade. Strategic working sessions and network functions during the conference will enable oceanographic researchers, technology operators, data experts, early career scientists, policy-makers, and end-users to chart the future of ocean observing.

CERF 25th Biennial Conference will be held from **3-7 November 2019** in Mobile, Alabama USA. The theme of the conference this year is Responsive, Ready, Relevant. Taken from the website: "With this year's conference theme, we endeavor to connect science and society in the collective goals of preserving the coastal and estuarine habitats, resources, and heritage. Through the conference, we will discuss the nature of research agendas that are directed at finding and solving problems, and how to engage stakeholders in that process. Our goal is to balance a natural and social scientific agenda with the food, music, and art emblematic of the Gulf Coast. In keeping with tradition, we hope to create a seriously fun and memorable 25th Biennial CERF Conference." There is an OA session: Ocean acidification in a multiple climate change stressors context: science-based tools for management at the 2019 CERF Biennial Conference. Early Registration deadline: **May 15, 2019**.

The Santiago Climate Change Conference (COP25) - the Blue COP. This is the 25th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCC) and this year the meeting is taking place from **2-13 Dec 2019** in Santiago, Chile. The meeting will focus on highlighting the response to climate change, including a need to consider how the ocean mitigates climate change and how marine ecosystems are in turn impacted by ocean acidification and other stressors such as warming and deoxygenation. The pre-sessional period will run from **26 November-1 December 2019.**

5th International Symposium on the Ocean in a High-CO2 World (Lima, Peru)
The SOLAS-IMBER Working Group on Ocean Acidification (SIOA) is pleased to announce that the 5th International Symposium on the Ocean in a High-CO_2 World will be held in Lima, Peru, from **7-10 September 2020**. The lead organizers are Drs. Wilmer Carbajal (Pedro Ruiz Gallo National University, Peru) and Michelle Graco (Institute of the Sea of Peru, IMARPE) together with their colleagues, based on their successful bid that was submitted to the SIOA.
The previous symposia in this series were held in Paris in 2004, Monaco in 2008, Monterey in 2012, and Hobart in 2016, each proving to be essential for the international and multidisciplinary community of researchers studying ocean acidification. The same is expected for this 5th symposium, the first to be held in South America. Please save the dates!
More detailed information will soon be available from the organizers.

FUNDING and JOB OPPORTUNITIES

The Ocean Foundation Pier2Peer Scholarships
Organization: The Ocean Foundation

Description: Small grant program providing funds to Pier2Peer matches to collaborate on a project, conduct training visits, collect data for GOA-ON submission, etc.
Requirements: Applicants must be in a Pier2Peer partnership and applying to use funds to support this collaboration.
Amount: USD 5,000
Application Deadline: Current quarter deadline: 31 May 2019; Applications are accepted on a continuing basis; submit to Alicia Cheripka (alicia.cheripka@noaa.gov) and Alexis Valauri-Orton (avalauriorton@oceanfdn.org).
Application Details: Funding Announcement attached to email

Postdoctoral Opportunities: OA coral reef science

Organization: University of Miami CIMAS
Description: The Cooperative Institute for Marine and Atmospheric Studies (CIMAS) at the University of Miami invites applications for a postdoctoral associate specializing in coral reef carbonate chemistry to work closely with scientists at RSMAS and NOAA's Atlantic Oceanographic and Meteorological Laboratory's Ocean Chemistry and Ecosystem Division (AOML/OCED).
The position is for one year and does not require the applicant to relocate to Miami. Duties can be fulfilled remotely. The position is within the Acidification, Climate, and Coral Reef Ecosystems Team (ACCRETE, http://www.coral.noaa.gov/research/accrete.html), a subunit of the Coral Health and Monitoring Program (CHAMP, http://www.coral.noaa.gov/). The successful candidate's duties will include, but are not limited to the following: 1) Focusing on synthesis and analysis of the NCRMP Ocean Acidification Enterprise datasets, i.e. baseline carbonate, diurnal suite, and census-based carbonate budgeting., 2) developing foundational models to link oceanic carbonate projection models with coastal biogeochemistry in focal island area within the NCRMP framework, and 3) Co-authors manuscripts describing the research for publication in peer-reviewed scientific journals and outreach materials for a general audience.
The successful applicant must possess a doctorate degree in marine science or a related field from an accredited university. They must be highly motivated, organized, and have the ability to adapt to a dynamic lab environment. Strong analytical and laboratory skills are required..
Preference will be given to candidates with: 1) an exemplary track record of peer-reviewed publications, 2) experience working in biogeochemistry and the ecology of ocean acidification, 3) Knowledge of ocean acidification processes and impacts to coral ecosystems, 4) Knowledge of ocean acidification modeling, and 5) Demonstrated competence in data analysis for large data sets and development of analytical scripts (e.g., R, Matlab).
Curriculum Vitae, a letter of interest, and the contact information for 2 persons who can provide letters of recommendation are required.For more information, please contact both Derek Manzello (derek.manzello@noaa.gov) and Tom Oliver (thomas.oliver@noaa.gov)
Apply online at: www.miami.edu/careers.

Other Postdoc and Research assistant positions are available at CIMAS as well and can be found on the Miami University Careers page.

POGO Shipboard Fellows
Organization: The Partnership for Observation of the Global Ocean (POGO)

Description: POGO offers a number of shipboard fellowship opportunities on ocean research vessels. Normally, specific calls for fellows working in certain sub-disciplines are issued six months before a cruise begins. However, POGO also fills available berths with qualified applicants on shorter notice. They have issued an open call for early career scientists, technicians, postgraduate students, and post-doctoral fellows involved in oceanographic work at centers in developing countries and countries with economies in transition. Qualified applicants will be contacted if an appropriate shipboard fellowship becomes available.
Requirements: Applicants must be involved in oceanographic work in a developing country or a country with an economy in transition. They must provide a fellowship proposal, intentions to build capacity for ocean observing, and a summary CV.
Amount: Round-trip ticket from home institute to the host institution; up to two months' stay at home institution to train prior to cruise; accommodation at ship port; ship messing fee; seafaring medical and sea survival course.
Application Deadline: Open call with no stated closure.
Application Details

Western Indian Ocean Marine Science Association Marine Research Grant Programme
Organization: Western Indian Ocean Marine Science Associated (WIOMSA)
Description: The award is designed to enhance the capacity of scientists in the Western Indian Ocean region to conduct marine research. There are three tiers (MARG I, II, III) that vary in duration and amount. MARG I and II applications are closed.
MARG-III: Intended to provide opportunities for individual researchers to travel to attend scientific meetings and conferences for the purpose of presenting their work and learning from others. The maximum amount offered is US$ 3,000. Proposals for MARG III Grants are reviewed continuously through the year subject to availability of funds. MARG III grants are provided for the purchase of return tickets, accommodation or daily subsistence allowance.
Requirements: Applicants should be young scientists studying the Western Indian Ocean region
Amount: USD 3,000 (MARG III)
Application Deadline: No deadline for MARG III
Application Details

EMBO Short-Term Travel Fellowships
Organization: European Molecular Biology Organization
Description: The fellowship funds research exchanges of up to three months between laboratories in eligible member countries and cooperation partners.
Requirements: Applicants must be from one of the member or cooperation countries and traveling to a lab in another member or cooperation country. Research must be related to life sciences. The travel must be associated with a larger project and not just limited to training in a technique, though it can include that type of training.
Amount: Travel and living costs of the traveling fellow
Application Deadline: Three months before proposed starting date of travel
Application Details

Jobs Lists:

The Global Marine Community Newsletter & Jobs List

Ocean Opportunities
Josh's Water Jobs List
International Ocean Carbon Coordination Project Jobs
OA-ICC Job News Stream

Links to new OPEN ACCESS ARTICLES on OA

Armstrong, C. W., Vondolia, G. K., Foley, N. S., Henry, L. A., Needham, K., & Ressurreicao, A. M. (2019). Expert assessment of risks posed by climate change and anthropogenic activities to ecosystem services in the deep North Atlantic. *Frontiers in Marine Science*, *6*, 158.

Bange, H. W., Arévalo-Martínez, D. L., De La Paz, M., Farias, L., Kaiser, J., Kock, A., ... & Upstill-Goddard, R. C. (2019). A harmonized nitrous oxide (N2O) ocean observation network for the 21st century. *Frontiers in Marine Science*, *6*, Art-Nr.

Beckwith, S. T., Byrne, R. H., & Hallock, P. (2019). Riverine calcium end-members improve coastal saturation state calculations and reveal regionally variable calcification potential. *Frontiers in Marine Science*, *6*, 169.

Chuard, P. J., Johnson, M. D., & Guichard, F. (2019). Ocean acidification causes mortality in the medusa stage of the cubozoan Carybdea xaymacana. *Scientific reports*, *9*(1), 5622.

Cummings, V. J., Barr, N. G., Budd, R. G., Marriott, P. M., Safi, K. A., & Lohrer, A. M. (2019). In situ response of Antarctic under-ice primary producers to experimentally altered pH. *Scientific reports*, *9*(1), 6069.

Enochs, I. C., Manzello, D. P., Jones, P. J., Stamates, J., & Carsey, T. (2019). Seasonal carbonate chemistry dynamics on southeast Florida coral reefs: localized acidification hotspots from navigational inlets. *Frontiers in Marine Science*, *6*, 160.

Hall-Spencer, J. M., & Harvey, B. P. (2019). Ocean acidification impacts on coastal ecosystem services due to habitat degradation. *Emerging Topics in Life Sciences*, ETLS20180117.

Ketzer, M., Praeg, D., Pivel, M. A., Augustin, A. H., Rodrigues, L. F., Viana, A. R., & Cupertino, J. A. (2019). Gas Seeps at the Edge of the Gas Hydrate Stability Zone on Brazil's Continental Margin.

Luo, Y. W., Shi, D., Kranz, S. A., Hopkinson, B. M., Hong, H., Shen, R., & Zhang, F. (2019). Reduced nitrogenase efficiency dominates response of the globally important nitrogen fixer Trichodesmium to ocean acidification. *Nature communications*, *10*(1), 1521.

Rankin, A., Seo, K., Graeve, O. A., & Taylor, J. R. (2019). No compromise between metabolism and behavior of decorator crabs in reduced pH conditions. *Scientific reports*, *9*(1), 6262.

Steiner, N. S., Cheung, W. W., Cisneros-Montemayor, A. M., Drost, H., Hayashida, H., Hoover, C., ... & Tai, T. (2019). Impacts of the changing ocean-sea ice system on the key forage fish Arctic cod (Boreogadus Saida) and subsistence fisheries in the Western Canadian Arctic-Evaluating linked climate, ecosystem and economic (CEE) models. *Frontiers in Marine Science*, *6*, 179.

For more new publications & articles relevant to ocean acidification, visit the OA-ICC News Stream.