

# The PIER Review

Welcome to the May 2020 issue of the PIER Review, the monthly [GOA-ON Pier2Peer](#) newsletter! This edition features a description of the new and improved Pier2Peer matching process. Additionally, this issue contains relevant OA-related news, updates, funding and job opportunities, and recently published open-access publications. Please send ideas and feedback for future issues of the *Pier Review* to **Mike Acquafredda, the Pier2Peer Program Coordinator** ([Michael.Acquafredda@noaa.gov](mailto:Michael.Acquafredda@noaa.gov)).

## Pier2Peer Program Assessment 2020

Please take a few moments (<5 minutes) to complete a survey about your experience in the Pier2Peer Program. These surveys will be used to determine the effectiveness of the Pier2Peer Program. We will use this information to improve the program, to grow the program's membership, and to explore additional funding opportunities for active mentor/mentee pairs. Your answers will not be seen by your mentors or mentees.

Mentees, access your survey [here](#).

Mentors, access your survey [here](#), and please complete one survey for each of your mentees.

## P2P FEATURE

### The New Pier2Peer Matching Process

Beginning this month, we are rolling out a new and improved Pier2Peer matching process. This new process gives new mentees a greater role in choosing their mentors. We believe this method will help the Program create more fruitful and longer lasting mentor-mentee partnerships. Here's how it works:

When new mentors register for the Pier2Peer Program, their information will be used to generate mentor profiles. A mentor profile will consist of biographical data, information about a mentor's research focus and expertise, links to a mentor's ResearchGate profile and/or lab website, and a photo. Each month, a compilation of profiles from all newly registered mentors will be uploaded to this website. Mentors who are already in the P2P Program and have indicated their willingness to accept additional mentees will also be added to this list. When

mentors are successfully paired, their information will be removed from the list. The “Mentor Profiles” document for May 2020 is now available on the [Pier2Peer webpage](#).

When new mentees register for the Pier2Peer Program, they will be directed to the list of available mentors and asked to rank up to three possible mentors with whom they would like to work. By giving new mentees the opportunity to browse the profiles of available mentors, they can identify individuals whose interests, skills, and expertise are most aligned with their specific needs.

The P2P Coordinator will then use all of the information gathered from the mentors and mentees to suggest new pairs. Participants will be notified of their match via an email containing the name, contact information, and country of their partner. Mentors and mentees are always welcome to request an alternate or additional partner. Furthermore, when mentees feel that they have gained enough experience, they are encouraged to become mentors themselves and continue growing the network of Pier2Peer partnerships.

**Do you have an exciting accomplishment or experience with the Pier2Peer program that you would like to share? Send a short summary and some photos to Mike Acquafredda ([Michael.Acquafredda@noaa.gov](mailto:Michael.Acquafredda@noaa.gov)) and you could be featured!**

## NETWORKS

### [Become a Pier2Peer recruiter](#)

Many early career OA scientists need a mentor! Please help us recruit senior and experienced OA observing experts to serve as Pier2Peer mentors. If you know someone who would be a good mentor, direct them to the [Pier2Peer website](#) or put them in contact with Mike Acquafredda ([Michael.Acquafredda@noaa.gov](mailto:Michael.Acquafredda@noaa.gov)).

Additionally, if you are attending a meeting or event, and you are interested in sharing a few slides on the program and disseminating sign-up information, then please email Mike. He will send you communication materials and sign-up sheets for your upcoming event.

### [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](#).

### [Join the Interdisciplinary Marine Early Career Network \(IMCaN\)](#)

Officially launched at the IMBeR Future Oceans2 Open Science Conference in Brest, France in 2019, IMECaN aims to:

- Provide a networking platform for early career marine researchers to develop collaborations;
- Provide training and development in areas not traditionally provided through formal education and training programmes; and
- Provide leadership opportunities for ECR marine researchers, particularly from developing nations.

Join the IMCaN and learn about upcoming activities [HERE](#)

## NEWS

**Due to the outbreak of the novel coronavirus, COVID-19, the following international conferences have been cancelled or postponed:**

[A Changing Arctic Conference](#) (Norway, June 2-5 2020, TBD)

[UN Ocean Conference](#) (Portugal, 2-6 June 2020, TBD)

[5th International Symposium on the Ocean in a High-CO2 World](#) (Peru, 7-10 Sept 2020, TBD)

[World Aquaculture Society Meeting](#) (Singapore, 8-12 June 2020, 14-18 December 2020)

**Special issue of the Journal of Marine Science and Engineering:**

**"Drivers and Consequences of Ocean Acidification on Different Temporal and Spatial Scales"**

*Description:* Ocean acidification (OA) has been identified as a major threat to ocean ecosystems because of the unprecedented rate of change in ocean CO<sub>2</sub> chemistry since the start of anthropogenic activity.

This change has unknown consequences for marine chemistry, life, and resources. This Special Issue is open for manuscript submissions on different topics dealing with OA, including:

- Changing carbonate chemistry from coastal to open ocean
- Organism to ecosystem responses and consequences of OA
- Natural analogs to OA
- Methods to study OA and data integration and analysis, capacity building
- Societal consequences of OA, regional policies, mitigation, and adaptation

**Learn more about this special issue and how to submit your manuscript [here](#).**

Journal of  
*Marine Science  
and Engineering*  
an Open Access Journal by MDPI

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1.732

Drivers and Consequences of Ocean  
Acidification on Different Temporal and  
Spatial Scales

Guest Editor  
Dr. Marta Álvarez

Deadline  
15 July 2020

mdpi.com/si/40454

Special Issue  
Invitation to submit

## UPCOMING EVENTS & CONFERENCES

### [5th International Symposium on the Ocean in a High-CO2 World \(Lima, Peru\)](#)

~~7-10 September 2020~~/ **New dates TBD**

The 5th Symposium on the Ocean in a High-CO2 World is the place to share cutting-edge science in a rapidly developing frontier of research dealing with the science of ocean acidification and related stressors. The Symposium will feature keynote talks by some of the leading experts in the field, as well as special events on ocean acidification and aquaculture, carbonate chemistry and the Latin American Ocean Acidification Network (LAOCA). As with past symposia in this series, we anticipate GOA-ON to play an important role in presenting advancements in OA research.

**Postponement information:** Although the Symposium has been postponed due to the COVID-19 pandemic, the meeting venue remains the same. Workshops associated with the symposium should also be rescheduled. Abstract submissions will remain open until 15 March 2021. Senior authors of abstracts already submitted will be contacted to provide an opportunity to modify or update the abstract and the type of presentation (oral or poster). The new meeting dates will be between late August and mid-September 2021. Exact dates will be posted on the Symposium website soon.

**For more information on the Symposium themes and meeting details**, please visit the Symposium website at <http://www.highco2-lima.org>.

### [2020 UN Ocean Conference](#)

~~2-6 June 2020~~/ **New dates TBD**

*Description:* The Ocean Conference, co-hosted by the Governments of Kenya and Portugal, comes at a critical time as the world is strengthening its efforts to mobilize, create and drive solutions to realize the 17 Sustainable Development Goals (SDGs) by 2030. The UN Ocean Conference will propel much needed science-based innovative solutions aimed at starting a new chapter of global ocean action towards advancing [SDG 14: Life Below Water](#)

**Location:** Lisbon, Portugal

### [World Aquaculture 2020](#)

**New Dates: 14-18 December 2020**

The annual meeting of the World Aquaculture Society will be held in Singapore this year. The Asian-Pacific region has dominated aquaculture production for decades. However, aquaculture continues to expand broadly across the region. Within Singapore, aquaculture is becoming increasingly integrated into its food system, making 2020 the perfect time for the world aquaculture community to focus on this island city-state. A major international trade show will also take place at the meeting. The trade show is a place to learn about the latest aquaculture technologies presented by exhibitors from around the world.

**Location:** Singapore EXPO Convention & Exhibition Centre and MAX Atria, Singapore

**[Registration](#) is open now!**

### [The American Geophysical Union's Fall Meeting](#)

**7 – 11 December 2020**

AGU's Fall Meeting is the largest international Earth and space science meeting in the world. The meeting will be hosted in San Francisco, California. Fall Meeting 2020 aims to bring a diverse and relevant set of topics to help move Earth and space science forward. It all starts with the innovative and dynamic session proposals from AGU's community. Session submissions are open now. We encourage sessions with diverse groups of conveners who can work together to broaden participation. For more information about sessions, town halls, workshops, and innovative sessions, click [here](#).

**Key dates:**

~~15 April 2020 – deadline for session, town hall, and workshop proposal~~ [submissions](#)

June 2020 - abstract submissions open

29 July 2020 - deadline for abstract submissions

August 2020 - housing and registration open

7 December 2020 - Fall Meeting begins

## FUNDING & JOB OPPORTUNITIES

### [The Ocean Foundation Pier2Peer Scholarships](#)

*Description:* Small grant program providing funds to Pier2Peer matches to collaborate on a project, conduct training visits, collect data for GOA-ON submission, etc. Scholarships are given out on a quarterly basis. Applications can be submitted to Mike Acquafredda ([Michael.Acquafredda@noaa.gov](mailto:Michael.Acquafredda@noaa.gov)) and Alexis Valauri-Orton ([avalauriorton@oceanfdn.org](mailto:avalauriorton@oceanfdn.org)).

*Requirements:* Applicants must be in an active Pier2Peer partnership and applying to use funds to support this collaboration.

*Amount:* \$5000 USD

***Deadline:* Current quarter deadline: 31 July 2020**

### [The Ocean Acidification Information Exchange Microgrants](#)

*Description:* The mission of the Ocean Acidification Information Exchange is to respond and adapt to ocean and coastal acidification by fostering an online environment built on trust, where our members, regardless of background, feel empowered to ask, answer, and learn from one another. To that end, OAIE offers grants for members who propose innovative strategies for leveraging the OA Information Exchange's collaboration tools to advance the community's mission, facilitate their own work related to ocean and coastal acidification and expand the reach/utility of the OAIE. Submit proposals using this [Google form](#). More information and criteria can be found on the [OAIE](#) or the [RFP](#).

*Requirements:* Must be a member of the OAIE

*Amount:* Between \$200USD and \$5000 USD.

***Deadline:* Rolling Basis**

### REV Ocean Cruises in 2022

*Description:* REV Ocean will be opening its first call for proposals for research and innovation projects on board RV REV Ocean in April 2020. We are looking for the best marine scientists and innovators globally, to focus on solutions to three of the most important challenges facing the ocean today: (1) plastic pollution, (2) climate change / ocean acidification, and (3) overfishing and destructive fishing impacts. To ensure research proposals are of the highest quality and match with REV Ocean selection criteria, all projects will be evaluated in a thorough and transparent international peer-reviewed process. The successful proposals will have access to the vessel and its equipment for cruises in 2022.

***Deadline: TBD - The date of announcement and closing for this call will be relatively short; follow their social media and check their [website](#) to be alerted when the call opens.***

### Western Indian Ocean Marine Science Association Marine Research Grant Programme

With support from the Swedish Government and the Western Indian Ocean Marine Science Association (WIOMSA), the Marine Research Grant (MARG) Programme seeks to enhance research capacity and increase our understanding of various aspects of marine sciences in the western Indian Ocean (WIO).

#### **MARG-I: *No longer accepting proposals***

**MARG-II:** Intended to provide opportunities to individual research scientists to share their work, or gain technical experience by working in a specific laboratory. (Continued on next page) MARG II grants are also available for data analysis and manuscript write-up within the WIO region or where necessary, outside the region. The maximum duration of MARG-II is 3 months, and the maximum amount offered is \$6,000 USD. ***Proposals for MARG II Grants are reviewed continuously through the year as long as funds are available.***

**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 \$3,000 USD. MARG III grants are provided for the purchase of return tickets, accommodation or daily subsistence allowance. ***Proposals for MARG III Grants are reviewed continuously through the year subject to availability of funds.***

For detailed instructions for applying for these grants, download the call for proposals and to apply visit <http://proposals.wiomsa.org>

**For more information contact the WIOMSA secretariat: [secretary@wiomsa.org](mailto:secretary@wiomsa.org)**

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

*Description:* POGO offers shipboard fellowship opportunities on ocean research vessels. Normally, calls for fellows are issued six months before a cruise begins, but 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.

*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. Click here for [Application Details](#).

*Amount:* Round-trip transportation; up to two months' stay at home institution to train prior to cruise; accommodation at ship port; ship messing fee; seafaring medical/survival course.

***Deadline: Open call with no stated closure.***

### **EMBO (European Molecular Biology Organization) Short-Term Travel Fellowships**

*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. Click here for [Application Details](#).

*Amount:* Travel and living costs of the traveling fellow

***Deadline: Three months before proposed starting date of travel***

### **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](#)

[Ocean Carbon & Biogeochemistry Jobs and Post-docs List](#)

[NOAA OAP Job List](#)

## **THE LATEST LITERATURE**

### **OA-ICC bibliographic database**

The OA-ICC bibliographic database currently contains more than 6,050 references related to ocean acidification, and includes citations, abstracts and assigned keywords. In addition to being available in [Mendeley](#), this bibliographic database is now freely available on the platform [Zotero](#). In order to access this database, go to either of these citations management websites and create a free account. Click on the Groups tab, search for "OA-ICC", and join this group. **To receive daily notifications of new ocean acidification literature, news, and opportunities, subscribe to the [OA-ICC News Stream](#).**

### **Here are some of the latest OPEN ACCESS OA-related articles**

Akam, S. A., Coffin, R. B., Abdulla, H. A., & Lyons, T. W. (2020). Dissolved Inorganic Carbon Pump in Methane-Charged Shallow Marine Sediments: State of the Art and New Model Perspectives. *Frontiers in Marine Science*, 7: 206. DOI [10.3389/fmars.2020.00206](https://doi.org/10.3389/fmars.2020.00206)

Bresnahan, P. J., Wirth, T., Martz, T., Shipley, K., Rowley, V., Anderson, C., & Grimm, T. (2020). Equipping smart coasts with marine water quality IoT sensors. *Results in Engineering*, 5: 100087. DOI <https://doi.org/10.1016/j.rineng.2019.100087>

Camacho, C., Maulvault, A. L., Santos, M. T., Barbosa, V., Fogaça, F. H., Pousão-Ferreira, P., et al (2020). Mercury in Juvenile *Solea senegalensis*: Linking Bioaccumulation, Seafood Safety, and Neuro-Oxidative

Responses under Climate Change-Related Stressors. *Applied Sciences*, 10(6): 1993. DOI [10.3390/app10061993](https://doi.org/10.3390/app10061993)

Chu, S. N., Sutton, A. J., Alin, S. R., Lawrence-Slavas, N., Atamanchuk, D., Mickett, J. B., Newton, J. A., Meinig, C., Stalin, S. & Tengberg (2020). A. Field evaluation of a low-powered, profiling p CO<sub>2</sub> system in coastal Washington. *Limnology and Oceanography: Methods*. DOI <https://doi.org/10.1002/lom3.10354>

Gallo, A., Boni, R., & Tosti, E. (2020). Gamete quality in a multistressor environment. *Environment International*, 138: 105627. DOI <https://doi.org/10.1016/j.envint.2020.105627>

Horwitz, R., Norin, T., Watson, S. *et al.* (2020). Near-future ocean warming and acidification alter foraging behaviour, locomotion, and metabolic rate in a keystone marine mollusc. *Sci Rep*, 10: 5461. DOI <https://doi.org/10.1038/s41598-020-62304-4>

Jackson, R. L. Gabric, A. J., Cropp, R., Woodhouse, M. T. (2020). Dimethylsulfide (DMS), marine biogenic aerosols and the ecophysiology of coral reefs. *Biogeosciences*, 17: 2181-2204 DOI <https://doi.org/10.5194/bg-17-2181-2020>

Li, Y., Zhang, L., Xue, L., Fan, W., Liu, F., & Yang, H. (2020). Spatial variation in aragonite saturation state and the influencing factors in Jiaozhou Bay, China. *Water*, 12(3): 825. DOI [10.3390/w12030825](https://doi.org/10.3390/w12030825)

Liu, Z., Zhang, Y., Zhou, Z. *et al.* (2020). Metabolomic and transcriptomic profiling reveals the alteration of energy metabolism in oyster larvae during initial shell formation and under experimental ocean acidification. *Sci Rep*, 10: 6111. DOI <https://doi.org/10.1038/s41598-020-62963-3>

Ng, C.A., Micheli, F. (2020). Short-term effects of hypoxia are more important than effects of ocean acidification on grazing interactions with juvenile giant kelp (*Macrocystis pyrifera*). *Sci Rep*, 10: 5403. DOI <https://doi.org/10.1038/s41598-020-62294-3>

Oakes, R. L., & Sessa, J. A. (2020). Determining how biotic and abiotic variables affect the shell condition and parameters of *Heliconoides inflatus* pteropods from a sediment trap in the Cariaco Basin. *Biogeosciences*, 17: 1975-1990. DOI [10.5194/bg-17-1975-2020](https://doi.org/10.5194/bg-17-1975-2020)

Oliveira, I.B., Freitas, D.B., Fonseca, J.G. *et al.* (2020). Vulnerability of *Tritia reticulata* (L.) early life stages to ocean acidification and warming. *Sci Rep*, 10: 5325. DOI <https://doi.org/10.1038/s41598-020-62169-7>

Puerta, P., Johnson, C., Carreiro-Silva, M., Henry, L. A., Kenchington, E., Morato, T., *et al.* (2020). Influence of Water Masses on the Biodiversity and Biogeography of Deep-Sea Benthic Ecosystems in the North Atlantic. *Frontiers in Marine Science*, 7: 239. DOI [10.3389/fmars.2020.00239](https://doi.org/10.3389/fmars.2020.00239)

Reid GK, Gurney-Smith HJ, Marcogliese DJ, Knowler D and others (2019) Climate change and aquaculture: considering biological response and resources. *Aquacult Environ Interact*, 11: 569-602. DOI <https://doi.org/10.3354/aei00332>

Reid GK, Gurney-Smith HJ, Flaherty M, Garber AF and others (2019) Climate change and aquaculture: considering adaptation potential. *Aquacult Environ Interact*, 11: 603-624. DOI <https://doi.org/10.3354/aei00333>

Song, G., Zhao, L., Chai, F., Liu, F., Li, M., & Xie, H. (2020). Summertime oxygen depletion and acidification in Bohai Sea, China. *Frontiers in Marine Science*, 7: 252. DOI [10.3389/fmars.2020.00252](https://doi.org/10.3389/fmars.2020.00252)

Stewart-Sinclair, P. J., Last, K. S., Payne, B. L., & Wilding, T. A. (2020). A global assessment of the vulnerability of shellfish aquaculture to climate change and ocean acidification. *Ecology and evolution*, 10: 3518-3534. DOI <https://doi.org/10.1002/ece3.6149>

Venkataraman, Y. R., Downey-Wall, A. M., Ries, J., Westfield, I., White, S. J., Roberts, S. B., & Lotterhos, K. E. (2020). General DNA methylation patterns and environmentally-induced differential methylation in the eastern oyster (*Crassostrea virginica*). *Frontiers in Marine Science*, 7: 225. DOI [10.3389/fmars.2020.00225](https://doi.org/10.3389/fmars.2020.00225)