

The PIER Review

Welcome to the February 2022 issue of the PIER Review, the [GOA-ON Pier2Peer](#) newsletter!

In this edition we introduce the new Pier2Peer Coordinator, Dr. Gabby Kitch. We relay the obituary of the late Dr. Koffi Marcellin Yao, and also provide you with highlights of his successes with Dr. Kouakou Urbain Koffi and their mentor Dr. Abed Al Rahman Hassoun in the Pier2Peer mentorship program. As always, this issue contains relevant OA-related news, updates, upcoming webinars, funding and job opportunities, and recently published open-access publications.

Please send ideas and feedback for future issues of the *Pier Review* to gabby.kitch@noaa.gov.

Letter from the editor

Pier2Peer members,

The past year has flown by and now my time with NOAA's Ocean Acidification Program is coming to an end. Shortly, I will be moving to North Carolina where I have accepted a postdoctoral position at UNC - Chapel Hill researching cryptic speciation in coralline algae with Dr. Sophie McCoy.

I would like to thank you all for welcoming me into the Pier2Peer community over the past year. I have really enjoyed my time working with you all and hearing about the crucial work you are doing all over the world - you really are the reason that Pier2Peer is such an effective and active program - keep up the great work!

Stepping into the role of Pier2Peer Coordinator and GOA-ON Secretariat member is Dr. Gabby Kitch with NOAA's Ocean Acidification Program. I am confident that Gabby will be an excellent asset for the Pier2Peer program and will bring with her effective leadership and ideas which will serve the community as it continues to grow.

I am hopeful that our paths will cross again in the future. For now, stay safe - - Kerri Dobson



P2P FEATURES

Introducing the new Pier2Peer Coordinator, Gabby!



Starting this month, February 2022, Dr. Gabby Kitch will be the new coordinator for the GOA-ON Pier2Peer Program. She will also become a member of the GOA-ON Secretariat. Originally from San Diego, CA, Gabby holds a deep love for the ocean and has witnessed local ecosystem change over the years. Inspired to take action, Gabby pursued an undergraduate degree in field-based geology to better understand the carbon cycle and the context for human-induced climate change.

Gabby recently completed her PhD at Northwestern University in paleoceanography. Her dissertation research focused on using chemical tools to understand organismal stress during geologic ocean acidification events. As NOAA's Ocean Acidification Program International Policy Knauss Fellow, she looks forward to supporting global ocean acidification programs, as well as the people and communities that fuel such critical science.

Dr. Koffi Marcellin Yao

It is with great sadness that Pier2Peer shares news of the passing of Dr. Koffi Marcellin Yao, an Ivory Coast ocean acidification scientist, member of the OA-Africa hub, and Pier2Peer mentee, on January 30 2022.

Dr. Abed El Rahman Hassoun, Dr. Yao's Pier2Peer mentor, wrote: "I'm devastated to know that our colleague Koffi Marcellin Yao passed away tonight, after he struggled for two years with cancer. I had the chance to work with him in the context of the Pier2Peer programme for two consecutive years. Marcellin was a brilliant, humble, cooperative person whom I enjoyed cooperating with. The Ocean Acidification community, especially OA-Africa & the Ivory Coast scientific sphere will certainly miss him so much... R.I.P."



The P2P feature below is about their mentor-mentee relationship and is dedicated to Dr. Yao, who will be greatly missed by all.

A tale of friendship, endurance, and a love of science: Dr. Abed El Rahman Hassoun (mentor), Dr. Koffi Marcellin Yao (mentee) and Dr. Kouakou Urbain Koffi (mentee)

In academia, we read about successes and failures mostly between labs' walls. Here, we want to highlight our success story during which we've faced very limited resources, unfortunate accidents, loss of colleagues, cancer, and the pandemic! But this Pier2Peer relationship was also rich in human connections, friendship, endurance, love of accurate science and meaningful collaborations!



The Gulf of Guinea OA research team (from left to right): A fisherman who helped the team with seawater sampling, Dr. Matthieu Kone, Dr. Severine Konan, Dr. Marcellin Yao, a second fisherman helper, and Dr. Urbain Koffi

We were so lucky to be funded twice by The Ocean Foundation in 2018 and 2020, to do OA research in the Gulf of Guinea. We were so excited and ready for the 'normally' expected challenges. But, since we started collecting data in October 2018, we had an accident using our own car on the first day. Couple months later, we damaged our car engine and had another accident. As the budget was not enough to cover such maintenance, we used our own money to fix the car, our only means of transportation. Also, the budget could not cover the OA monitoring area, collect samples and ship to Lebanon (Dr. Abed El Rahman HASSOUN lab.),

since our lab has no equipment to make measurements of TA and DIC. Although the shipment and handling fees were expensive so we needed to participate in the duty payment, some samples were broken during shipments. And our hearts were broken with every sample bottle! You cannot imagine the struggle of sampling in our case! Moreover, we do not have the required equipment to sample more than 10m off the coast. Measurements of Total Alkalinity (TA) and Dissolved Inorganic Carbon (DIC) carried out by Dr. Abed El Rahman HASSOUN are very appreciated and helpful to monitor the carbonate system parameters for the first time in our study area. At the end, we were able to overcome all these difficulties, and to obtain reliable data. These data can be made available to the scientific community soon. Because our resources were very limited, we tried our best to overcome all the above-mentioned technical issues, and to adapt our work with the equipment we could buy.

All these were somehow 'predicted' challenges that many labs in unfortunate countries may face, no!? However, we also faced some very serious unpredicted personal issues that affected so much the positive vibes we had at the beginning of this exciting project. Unfortunately, during samples' collecting period (November 2018 – June 2019), one of our team members named KONE Mathieu passed away. It was very sad news for all the team members, we'll never forget this great researcher. In addition, the PI of the project, Dr YAO Koffi Marcellin, was diagnosed with cancer in 2021. He is still very sick till now.

Nevertheless, and despite all these technical issues, the human losses, and the pandemic that is complicating all aspects of life and research here, we are still persisting in keeping the good vibes of our collaboration up, in working to better understand OA in the Gulf of Guinea, in drafting our results into scientific papers, and in telling the world that we are here, we are working on OA in a critical area of the Atlantic Ocean, so please give us the needed visibility and opportunities to do our part in the OA worldwide community.

Do you have an exciting accomplishment or experience with the Pier2Peer program you would like to share? Send it to Gabby Kitch at gabby.kitch@noaa.gov and you could be featured!

HIGHLIGHTS

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

New dates: 13-16 September 2022

Location: Lima, Peru

Description: The 5th International Symposium on the Ocean in a High CO₂ World has officially been rescheduled. **Abstracts and travel awards/grants are currently being accepted (follow the abstract template [.doc template](#), MS Word or compatible) until April 24.** They must be submitted electronically to: abstract@highco2-lima.org. Travel award recipients will be notified on May 7, 2022 and abstract results will be notified by May 8, 2022. For more information on the Symposium themes and details, please visit the [Symposium website](#).



NETWORKS

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

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.

UPCOMING EVENTS & CONFERENCES

[Ocean Sciences Meeting 2022](#)

Dates: 27 Feb-4 March 2022 (Registration still open)

Location: Virtual

Description: At a time when many aspects of life can feel uncertain, finding balance is important. More than 5,300 ocean specialists from over 75 different countries submitted abstracts for OSM22, a conference that will show balance through:

- An enriching virtual conference experience with a robust scientific program and numerous networking and professional development events.

- A program working toward the goals of the [United Nations Decade of Ocean Science for Sustainable Development](#).
- An emphasis on diversity and inclusion, and [support for student and early career scientists](#).
- [No registration fees](#) for students and professionals from World Bank-defined developing countries
- Pre-recorded talks are available on the conference platform, which allow those outside the conference's timezone to still engage with the science
- Almost 150 talks or posters on ocean acidification

“Come Together and Connect” focuses on strengthening the ocean sciences community through discussing both basic and applied research while making scientific and social connections. Co-sponsored by the American Geophysical Union (AGU), the Association for the Sciences of Limnology and Oceanography (ASLO), and The Oceanography Society (TOS), Ocean Sciences Meeting (OSM) is the global leader in ocean sciences conferences. Balance is key to OSM 22 – enabling as many people to meet as possible across media, disseminating scientific knowledge, and creating personal connections all while considering the ocean and planet we want for the future.

[Our Ocean Palau](#)

Dates: 13-14 April 2022

Location: Palau

Description: The ocean gives us life. We rely on it for food, livelihoods, climate resilience and recreation. Ensuring the longevity of our planet's life force requires decisive and collective action. Our Ocean will focus on six Areas of Action, convening partners from across the globe to identify solutions to manage marine resources, increase the ocean's resilience to climate change and safeguard its health for generations to come. Commitments to deliver bold, measurable and impactful actions promoting and protecting ocean health are at the heart of Our Ocean. To date, there have been over a thousand commitments from governments, civil society and businesses in over 70 countries. Our Ocean will continue to encourage partnerships and commitments and report on the progress and successes of commitments from previous years.

[The African Kick-Off Conference for the UN Decade of Ocean Science](#)

Dates: 10-12 May 2022

Location: Virtual

Description: The “African kick-off Conference for the UN Decade of Ocean Science for Sustainable Development, organized by the Government of Egypt (through the Ministry of Higher Education and Scientific Research, and the National Institute of Oceanography and Fisheries) and UNESCO (through the Intergovernmental Oceanographic Commission and the UNESCO Regional Bureau for Sciences in the Arab States), will serve as a platform for the launch of the UN Decade (2021-2030) in Africa. Over 1000 practitioners, academics, researchers, students and stakeholders are expected to attend the three-day (on line) event. It will also bring energy to the Decade of African Seas and Oceans (2015-2025) by providing impetus for development of ocean sciences, technology and innovation necessary for the harnessing the Sustainable Blue Economy in Africa as outlined in the African Union's Agenda 2063 (“The Africa

We want”) and the 2050 African Integrated Maritime Strategy (2050 AIM Strategy). The conference will provide a forum to take stock of status of ocean science and technology in the region, deliberate on how ocean sciences in Africa should be supported or reorganized to deliver the required societal outcomes, and seek interest and commitment of the oceanographic community to deliver on a number of directions of research which are critical for ocean sustainable management.

[2022 UN Ocean Conference](#)

Dates: 27 June-1 July 2022

Location: Lisbon, Portugal

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](#).

[World Aquaculture 2022](#)

Dates: November 29 - December 2, 2022 [Registration is open!](#)

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

Description: 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. A major international trade show to learn about the latest aquaculture technologies will also take place at the meeting.

FUNDING & JOB OPPORTUNITIES

[Postdoctoral Researcher in marine biogeochemical modeling, Institute for Chemistry and Biology of the Marine Environment \(ICMB\), University of Oldenburg, Germany](#)

Description: The ICMB is an interdisciplinary research institute, for fundamental and applied marine research. The internationally renowned institute aims at understanding the function of marine environmental systems through close cooperation of the various scientific disciplines (chemistry, biology, physics, mathematical modeling) of its more than 20 research groups. The position is part of an interdisciplinary, collaborative project funded by the Lower Saxony Ministry for Science and Culture which focuses on the interactions between bacteria and dissolved organic matter in the ocean. Dissolved organic matter (DOM) forms a large organic carbon reservoir in the ocean and plays a crucial role in energy and nutrient fluxes in marine ecosystems, with implications for the marine carbon cycle and climate. Your task will be to use theory and computational modeling to understand the cycling of marine DOM and changes in its inventory in future climate scenarios on the global scale. We offer a multidisciplinary working environment, a collaborative working atmosphere and support initiative to develop and pursue own ideas in the broader context of the topic. The start date for the successful applicant will be May 2022. The University of Oldenburg is dedicated to increasing the percentage of female employees in the field of science. Therefore, female candidates are strongly encouraged to

apply. In accordance with Lower Saxony regulations (§ 21 Section 3 NHG) female candidates with equal qualifications will be preferentially considered. Applicants with disabilities will be given preference in case of equal qualification. Applications, including a cover letter, curriculum vitae, qualifying documents (final academic records), research statement (1 page), and the names and contact information of up to three references should be submitted by email in a single PDF to Susanne Wendeling (susanne.wendeling@uol.de) using subject "Postdoc-Biogeochemical Modeling" by 01.03.2022. Interested candidates are encouraged to contact Prof. Dr. Sinikka Lennartz (sinikka.lennartz@uol.de) or Prof. Dr. Thorsten Dittmar (thorsten.dittmar@uol.de) for more information about the position.

Requirements: Qualifying outstanding academic university degree (Master or Diploma) and a doctoral degree in the natural, mathematical or computer sciences, preferably with a background in microbiology or biogeochemistry. Experience in numerical, process-oriented modeling, programming skills (e.g. Fortran, Python and/or MatLab,...) as well as fluently spoken and written English is required. Knowledge on microbial interactions, marine ecosystems, and ecological theory are considered advantageous, but all applicants with very good critical thinking skills and demonstrated ability to drive projects in a timely manner will be considered. We expect ability for and enthusiasm to work in a multidisciplinary, international team and to communicate with external partners.

Deadline: 1 March 2022.

[PhD Position: Nutrient cycling, eutrophication, hypoxia, and acidification, University of South Alabama](#)

Description: A PhD research assistantship is available for a sharp and motivated student interested in estuarine and coastal nutrient, carbon, and oxygen cycling and how changes in these cycles impact living resources. Estuarine and coastal ecosystems located at the land-sea interface are among the most highly productive systems on Earth and due to their proximity to land are also among the most susceptible to human activities. Individually and cumulatively, stressors degrade the marine flora, fauna, and ecosystems humans rely upon. Therefore, these impacts are of great societal concern. The successful candidate will work in the [lab of Dr. John Lehrter](#) whose research is aimed at understanding and untangling the effects of multiple stressors on coastal ecosystems. Specific objectives include understanding the water-column and sediment biogeochemical cycling of carbon, oxygen, and nutrients in response to anthropogenic forcing and applying this understanding to the stewardship of marine resources. Research tools include field and laboratory studies, satellite remote sensing, and numerical ecosystem models. The student will be expected to develop a research thesis project that is complementary to these efforts. The PhD student will pursue their degree through the [Department of Marine Sciences at the University of South Alabama](#) in Mobile, Alabama and will conduct their thesis research and most coursework at the [Dauphin Island Sea lab](#). Dauphin Island is a barrier island at the mouth of Mobile Bay and is an excellent location for estuarine and coastal ocean research and education. The PhD assistantship provides an annual stipend plus a full tuition waiver and health insurance. Applicants interested in this opportunity are encouraged to contact John Lehrter (jlehrter@southalabama.edu) to discuss their research interests. Review of candidates will begin February 21, 2022 and will continue until April 1, 2022. The start date for the successful applicant will be 15 August 2022.

Requirements: Applicants should have a masters (preferred) or baccalaureate degree in marine sciences or closely affiliated majors such as biology, chemistry, physics, or geology. The most qualified candidates will have a record of previous scholarly publication. Entrance to the Marine Sciences PhD program is highly competitive. Minimum requirements for consideration include a GPA of 3.0 on a 4 point scale and a combined GRE (verbal and quantitative) score greater than 300.

Deadline: 1 April 2022.

[Postdoctoral Research Scientist position in the Ocean Carbon Group, Lamont-Doherty Earth Observatory of Columbia University, USA](#)

Description: The Lamont-Doherty Earth Observatory of Columbia University invites applications for a Postdoctoral Research Scientist position in the Ocean Carbon Group. The position will focus on quantifying and reducing uncertainty in extrapolations of sparse surface ocean pCO₂ observations to global coverage. The work will involve (1) evaluation of existing extrapolations and observing strategies within an existing testbed based in Large Ensemble climate models, (2) maturing extrapolation techniques to more explicitly include uncertainty quantification, and (3) assessing implications for scientific understanding of the mechanisms of spatial and temporal variability in the ocean carbon sink. Prior experience with oceanography, carbon cycle science, and data science methods is strongly preferred. The candidate will be expected to build strong links with collaborators in the Department of Statistics, and at NOAA research laboratories. They will also be a full member of the new community of climate data scientists organized around a new center, Learning the Earth with Artificial Intelligence and Physics (LEAP, <https://leap.columbia.edu>), a new Science and Technology Center funded by NSF. Proposed start date is April 1, 2022, with some flexibility. Appointments will be for 1-year, with continuation pending funding and progress.

Requirements: Candidates should have completed or be nearing completion of a PhD in ocean and climate science, or a closely related field. Excellent communication, interpersonal and organizational skills and ability to use independent judgment required. Evidence of the ability to conduct and publish high quality research is required.

Deadline: Open until filled.

[Postdoctoral Research Position Studying Responses of Farmed Shellfish to Multiple Stressors, Rutgers University, USA](#)

Description: Seeking a postdoctoral research associate to join a dynamic research team on a project that will involve both field-based and laboratory-based experiments. Position is based at the Haskin Shellfish Research Lab (located in Port Norris, NJ) at Rutgers University, and will include travel to meet with project collaborators and advisors from management and fishing communities. Funding is in place for 18 months, with possible extension subject to funding. The postdoc will be responsible for coordinating experiments which will include farm-scale grow-out experiments in the ocean, lab-scale multi-stressor (temperature and ocean acidification) experiments in the hatchery, meetings with industry and management collaborators, and writing reports and manuscripts about results. Opportunities for grant writing, undergraduate student mentoring, and presentations at science conferences will be encouraged. We are looking for applications from candidates with experience or interest in shellfish aquaculture and with a strong background in experimental design and data analysis. This research will involve

time at sea on commercial vessels. The project is highly collaborative and interdisciplinary, and we invite applications from candidates who excel in team work environments and are interested in building a strong network of collaborators.

Requirements: PhD in ecology, aquaculture, fisheries, biological oceanography or related fields.

Deadline: Open until filled.

[EMBO \(European Molecular Biology Organization\) Short-Term Travel Fellowships](#)

Description: Until the end of 2021, two of EMBO's Fellowship Programmes will consider applications for scientific exchanges involving institutes in Japan, an EMBC Member State, EMBC Associate Member State, or a country/territory covered by a cooperation agreement with EMBC.

Requirements: Short-Term Fellowships fund research exchanges of up to three months between laboratories in eligible countries. Awarded applicants can stay on their research visit for an additional three months maximum (NB: extension unfunded). The aim is to facilitate valuable collaborations with research groups applying techniques that are unavailable in the applicant's laboratory. Short-Term Fellowships are intended for joint research work, and are not awarded for exchanges between two laboratories within the same country.

Amount: Travel and living costs of the traveling fellow only.

Deadline: Fellowship applications are accepted on a rolling basis.

[40 Student Opportunities available through NOAA](#)

This list contains information about camps, events, scholarships, internships, fellowships, and other opportunities for a broad range of audiences including highschool students, undergraduates, graduate students, and post-docs.

Jobs Lists

[OA-ICC Job News Stream](#)

[NOAA OAP Job List](#)

[Schmidt Ocean Job Board](#)

[Ocean Opportunities](#)

[Pathways to Science](#)

[Seven Seas Media](#)

[Josh's Water Jobs List](#)

[Ocean Carbon & Biogeochemistry List](#)

[International Ocean Carbon Coordination Project Jobs](#)

[The Global Marine Community Newsletter & Jobs List](#)

THE LATEST LITERATURE

OA-ICC bibliographic database

The OA-ICC bibliographic database currently contains more than 9,000 references related to ocean acidification, and includes citations, abstracts and assigned keywords. 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:

[Bhuiyan et al. \(2022\) Effects of ocean acidification on the biochemistry, physiology and parental transfer of *Ampelisca brevicornis* \(Costa, 1853\). *Environmental Pollution*.](#)

[Burnham et al. \(2022\) Effects of ocean acidification on the performance and interaction of fleshy macroalgae and a grazing sea urchin. *Journal of Experimental Marine Biology and Ecology*.](#)

[Clements et al. \(2022\) Meta-analysis reveals an extreme “decline effect” in the impacts of ocean acidification on fish behavior. *Plos Biology*.](#)

[Foster et al. \(2022\) Bioindicators of severe ocean acidification are absent from the end-Permian mass extinction. *Scientific Reports*.](#)

[Page et al. \(2022\) Responses of benthic calcifying algae to ocean acidification differ between laboratory and field settings. *ICES Journal of Marine Science*.](#)

[Rodríguez-Romero et al. \(2022\) Heterogenous environmental seascape across a biogeographic break influences the thermal physiology and tolerances to ocean acidification in an ecosystem engineer. *Diversity and Distributions*.](#)

[Schmidt et al. \(2022\) Faster crystallization during coral skeleton formation correlates with resilience to ocean acidification. *Journal of the American Chemical Society*.](#)

[Vargas et al. \(2022\) Upper environmental \$p\text{CO}_2\$ drives sensitivity to ocean acidification in marine invertebrates. *Nature Climate Change*.](#)

[Yusof et al. \(2022\) Can heat shock protein 70 \(HSP70\) serve as biomarkers in Antarctica for future ocean acidification, warming and salinity stress? *Polar Biology*.](#)