

Global Ocean Acidification Observing Network

Newsletter of the Global Ocean Acidification Observing Network (GOA-ON)

Issue 9, July 2019

## **GOA-ON news**

#### GOA-ON holds 4th International Workshop in Hangzhou, China

The 4th GOA-ON International Workshop was held in Hangzhou, China on 14-17 April 2019, where 270 scientists from 62 countries participated. The workshop included plenary talks, break-out presentations and discussions, and poster sessions. The main themes of the workshop were focused on monitoring OA in multi-stressor environments, studying biological responses, advancing OA modeling, and ways to meet the needs of stakeholders. The first day of the workshop included two special events, one of which was focused on using satellite remote sensing software (SATCO2), and another one aimed at creating a dialogue between scientist and the aquaculture industry. A summary of the workshop will soon be available online. In the days preceding and following the workshop, the GOA-ON Executive Council met to discuss updates and identify priorities for the coming year. A report of the GOA-ON Executive Council meeting can be found online here.



Workshop chairs and coordinator at the workshop banquet dinner. From left to right: Dr. Fei Chai, Dr. Jan Newton, Dr. Samuel Wang, Dr. Minhan Dai)



The GOA-ON Executive Council held their 6th annual in-person meeting in Hangzhou, China



The 4th GOA-IN International Workshop welcomed 270 scientists from 62 countries in Hangzhou, China













Ocean Acidification International Coordination Centre

OA-ICC



# GOA-ON welcomes a new co-chair, Dr. Jan Newton

The GOA-ON Executive Council is pleased to welcome Dr. Jan Newton as a new co-chair. Dr. Newton is a principal oceanographer at the University of Washington Applied Physics Laboratory where she is steering numerous ocean acidification and ocean observing projects in the Pacific Northwest, including the Washington Ocean Acidification Center (WOAC) and the Northwest Association of Networked Ocean Observing Systems (NANOOS). She has served on the GOA-ON Executive Council for 7 years as one of the network's founding members and has been heavily involved with GOA-ON's activities through organizing international workshops, supporting the website and data portal, mentoring early-career



Dr. Jan Newton, University of Washin<mark>gton, Seatt</mark>le, USA

scientists, collaborating with important stakeholders, and helping to lead the North American regional hub. We look forward to utilizing Dr. Newton's leadership and motivation to advance GOA-ON's efforts in the years to come.

#### GOA-ON recognizes the immense contribution of the previous co-chair, Dr. Libby Jewett

In 2012, the first meeting that planted the seed for GOA-ON was held in Seattle, Washington, USA with about 65 participants. Dr. Libby Jewett was instrumental in calling the meeting and with the help of

colleagues, GOA-ON emerged as a new observing network. Since then, Libby has had an immense influence, leading developments of the network as co-chair. GOA-ON has Members from 96 countries, and since the beginning, the network has been strengthened by the formation of regional collaboration hubs, the development of a mentoring platform, training workshops and outreach activities in many regions, the implementation of the data portal and the formation of the Secretariat. Libby has been a major driver of these developments and without her support and guidance GOA-ON would undoubtedly be a much smaller network.

The terms of reference only allow co-chairs to serve six years and, sadly, Libby's time has come to an end and she has stepped aside from this role. However, she has agreed to continue her engagement with GOA-ON as a NOAA representative on the executive committee.

#### New GOA-ON OceanObs community white paper published

An overview of GOA-ON's genesis, current efforts, challenges, and visions for the coming decade has been published in a new paper entitled "An Enhanced Ocean Acidification Observing Network: From People to Technology to Data Synthesis and Information Exchange", in Frontiers in Marine Science (find the paper here). This article was written as a community white paper in the context of the OceanObs decadal conference, aimed at highlighting and improving ocean observations on the regional and global scales.



#### **GOA-ON Implementation Strategy launched**

The GOA-ON Implementation Strategy was officially launched at the 4th GOA-ON International Workshop in Hangzhou, China, April 2019. This document outlines how to implement the GOA-ON Requirements and Governance Plan, including expanding ocean acidification observations, closing human and technology capacity gaps, and informing about the impacts of ocean acidification. The Implementation Strategy also offers practical information prompting members to approach GOA-ON's goals. The GOA-ON Executive council would like to thank those that provided input on the document during the community feedback period.

















## JCOMM Report Card highlights ocean carbon uptake and ocean acidification observing efforts

The Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM) of the World Meteorological Organization (WMO) and UNESCO's Intergovernmental Oceanographic Commission (IOC) has released the 2019 Ocean Observing System Report Card. This Report Card highlights the importance of sustaining ocean acidification observations, and the role GOA-ON plays in producing guidelines and best practices used by the community.



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IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT GOAL 14

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#### GOA-ON's role in the Communities of Ocean Action on Ocean Acidification

The Communities of Ocean Action (COA) were launched by UN DESA to support the implementation of Sustainable Development Goal 14. One of the nine established COAs focuses on ocean acidification and is jointly led by GOA-ON co-chair, Dr. Bronte Tilbrook, and IAEA Environment Laboratories Director, Dr. David Osborn. There are presently 260 Voluntary Commitments pledged globally to address ocean acidification. GOA-ON has registered a Voluntary Commitment titled "Enhancing global ocean acidification monitoring and research" and has contributed to establishing the methodology and reporting for . If you are involved in ocean acidification projects, please consider submitting a Voluntary Commitment on the COA website. The COA on OA has been hosting a webinar series, the

most recent of which featured Dr. Libby Jewett (Director of NOAA OAP) who presented on GOA-ON's status, progress, and lessons learned. A recording of the webinar can be found here.

# **GOA-ON's capacity building efforts**

#### Workshop on practical guidelines for OA research

The OA-ICC partnered with GOA-ON and The Ocean Foundation to organize a workshop, held on 29-31 May at the IAEA Environment Laboratories in Monaco, to assess needs and issues faced when undertaking ocean acidification monitoring and research in different regions, and to develop practical resources to help respond to those needs. The meeting brought together 15 participants from 7 countries, IOC-UNESCO, the IAEA, and The Ocean Foundation. During this meeting, the participants worked on a list of tools useful for "GOA-ON in a Box" users and those starting ocean acidification research. The plan is to release these resources as a package for the community. Click here for a list of items in development or planned to be included in this product.

# Training course on best practices for ocean acidification experiments in multi-stressor scenarios

The IAEA Environment Laboratories in Monaco welcomed 16 participants from 16 countries on 24-28 May 2019, for a training course on designing and running multi-stressor experiments. The course taught participants how to use the Multiple Environmental Driver Design Lab for Experiments (MEDDLE), produced by the Scientific Committee on Oceanic Research (SCOR) Working Group 149. This new product includes a handbook, decision support tools, an experiment simulator, and video tutorials. More information about this course can be found here



Attendees at the best practices for OA experiments in multi-stressor scenarios in Monaco. (Credit: Francois Oberhaensli, IAEA)















#### **Pier2Peer Mentorship program**

Pier2Peer is the GOA-ON scientific mentorship program that matches senior researchers with early career scientists to facilitate an exchange of expertise and to provide a platform for international collaborations. There are presently 137 mentees, 76 mentors, and 102 active pairs in this program, and GOA-ON is always recruiting senior and experienced ocean acidification experts to serve as mentors. If you are interested in becoming a Mentor, or to join as a Mentee, simply follow the link and complete the short survey. If you have any questions about the GOA-ON Pier2Peer program, please contact Alicia Cheripka at alicia.cheripka@noaa.gov.



Alicia Cheripka with new and current members of Pier2Peer at the GOA-ON workshop. Photo credit: Alicia Cheripka

# **Regional Updates**

### **OA Med-Hub holds first virtual meeting**

The regional hub for the Mediterranean Sea ("OA Med-Hub"), held its first virtual meeting on 1 July. The hub is made up of over 40 scientists representing nine countries around the Mediterranean with expertise in modelling, biology, chemistry, and other fields related to ocean acidification. During this virtual meeting, the network members discussed products that could be developed, opportunities for new projects and collaborations, and ways to address some of the challenges the region faces due to increasing ocean acidification.

#### **OA-Africa leads side event at WIOMSA Symposium**

The 11th Western Indian Ocean Marine Science Association (WIOMSA) Symposium was held on 1-6 July 2019 in Mauritius, and included a special session on 5 July focused on ocean acidification efforts in East Africa. This session was co-led by Dr. Roshan Ramessur, co-chair of OA-Africa, and served as an opportunity to raise awareness about ocean acidification research efforts taking place in East Africa, and the role of OA-Africa and GOA-ON in building capacity in this region.

# **Upcoming meetings**

#### Ocean Obs'19: 16-20 September 2019, Honolulu, Hawaii

This decadal conference will galvanize the ocean observing community ranging from scientists to end users. There will be several breakout sessions focusing on ocean acidification, including one on capacity building and another on the UN Sustainable Development Goals. Visit the conference website for more information and access to registration here.

American Geophysical Union Fall Meeting, 9-13 December 2019, San Francisco, California This year's AGU Fall Meeting will include a session entitled "Marine-Based Management of Atmospheric Carbon Dioxide and Ocean Acidification", which will include presentations on methods of restoring, enhancing, or augmenting naturally-occurring marine processes for regulating oceanic and atmospheric CO2 and ocean acidity levels. The abstract submission deadline is 31 July 2019. More information is available here.













Coordination Centre OA-ICC





Med Hub

Ocean Acidificatior International

#### Ocean Sciences Meeting, 16-21 February 2020, San Diego, California

The Ocean Sciences Meeting will include nine sessions related to the theme titled "Ocean Change: Acidification and Hypoxia". These sessions will focus on human impacts, interactions of multiple stressors, modeling, mitigation techniques, and other relevant topics. For more information on these sessions, visit here.



# 5th International Symposium on the Ocean in a High-CO2 World, 7-10 September 2002, Lima, Peru

This Symposium follows the symposia in Paris in 2004, Monaco in 2008, Monterey in 2012, and Hobart in 2016, which were all key events for the international community of researchers studying ocean acidification and related stressors. Visit the symposium website for more information and important dates.

# Job/ funding opportunities

# Western Indian Ocean Marine Science Association Marine Research Grant Programme

The award is designed 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. Applicants should be young scientists studying the Western Indian Ocean region. More information.

### The Ocean Foundation Pier2Peer Scholarships

The Ocean Foundation has a small grant program providing scholarships of 5,000 USD to Pier2Peer matches to collaborate on a project, conduct training visits, collect data for GOA-ON submission, etc. Applicants must be in a Pier2Peer partnership and applying to use funds to support this collaboration. Application Deadline: Current quarter deadline: 31 August 2019; Applications are accepted on a continuing basis; submit to Alicia Cheripka (alicia.cheripka@noaa.gov) and Alexis Valauri-Orton (avalauriorton@oceanfdn.org). Full application details can be found here.

#### Partnership for Observation of the Global Ocean Shipboard Fellows

The Partnership for Observation of the Global Ocean (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.



# PhD opportunity: Understanding coral reef ecosystem adaptation to ocean acidification in the Pacific, University of Newcastle, Australia

A PhD scholarship is being offered to work with The Secretariat of the Pacific Regional Environment Programme (SPREP) alongside leading coastal and marine scientists at the University of Newcastle to examine ocean acidification, adaptation actions and reef resilience through coral restoration in two Pacific Island nations. The research seeks to build capacity to deal with ocean acidification as part of adaptation and resilience strategies for Pacific communities. Application information and eligibility criteria can be found here.













#### PhD opportunities for early career African scientists

The Regional Scholarship and Innovation Fund (RSIF), a flagship program of the Partnership for skills in Applied Sciences, Engineering, and Technology (PASET), is offering 45 full scholarships for African scientists wishing to pursue a PhD in a priority thematic area at one of ten African universities. The deadline to apply is **July 22, 2019.** Further information on PhD program-specific requirements, eligible universities, and application instructions can be found here.

## Postdoctoral opportunity: coral reef CaCO3 budget modeling, University of Miami, USA

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 budget modeling to work closely with scientists at RSMAS and NOAA's Atlantic Oceanographic and Meteorological Laboratory's Ocean Chemistry and Ecosystem Division (AOML/OCED). For a full description of the position, view the full announcement on the OA Information Exchange here.

#### Postdoctoral opportunity: Millennium Institute of Oceanography (IMO), Chile

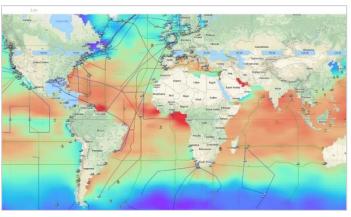
Full-time postdoctoral positions are available starting between September 1st 2019 and January 31st 2020 at the Millennium Institute of Oceanography (IMO) to undertake innovative research and to develop questions in three proposed topics within IMO's larger research lines. Proposed research topics include: The impact of oceanographic processes on speciation processes and the ability of local adaptation in eukaryotic phytoplankton, and adaptations of phytoplankton in a variable and changing ocean. More information can be found here.

#### View other job opportunities on the OA-ICC News Stream here.

# **Announcements/reminders**

#### Update your assets on the GOA-ON data portal

The GOA-ON data portal includes over 600 assets monitoring ocean acidification parameters throughout the world's oceans. It is important for data providers to update their assets in order for this portal to include accurate metadata and links to data. If your assets need to be updated, or to add a new platform, please fill out this short survey. For any questions, please contact the GOA-ON Secretariat (secretariat@goa-on.org)



#### Join the OA Info Exchange (OAIE)

The OA Information Exchange (OAIE) is a website for the ocean acidification community to share ideas and resources, ask questions, and interact with people in a variety of disciplines around the world. Scientists, citizen scientists, educators, NGO and government employees, resource managers, concerned citizens, and others are all welcome to take part in the OA Information Exchange.

**Subscribe to the OA-ICC news stream** for daily posts with new OA publications, media coverage, upcoming events, job postings, etc.

Use the OA-ICC portal for ocean acidification biological response data to access over 1000 data sets.

Access over 5,500 ocean acidification publications from the OA-ICC bibliographic database.















# Follow GOA-ON on social media!





GOA-ON is a network comprised of over 632 members from 96 countries. New countries that have joined GOA-ON in recent months include Russia and Curaçao.

Are you involved in OA work that you would like to have included in future newsletters? Contact the GOA-ON Secretariat: secretariat@goa-on.org

<u>GOA-ON Secretariat</u> Alicia Cheripka, NOAA Ocean Acidification Program Marine Lebrec, IAEA Ocean Acidification International Coordination Centre Katherina Schoo, Intergovernmental Oceanographic Commission of UNESCO













