Ocean Acidification International Coordination Centre
IAEA OA-ICC
July - September 2019
Promoting global cooperation to address ocean change

OA-ICC HIGHLIGHTS

The latest news and updates from the OA-ICC and partners

The participants of a new Coordinated Research Project (CRP) met in Kristineberg, Sweden to kick off the 4-year project. (Photo: Sven Lovén Centre for Marine Infrastructure, University of Gothenburg)

THIS QUARTER:

IAEA launches new research project on the impact of ocean acidification on seafood

A new 4-year IAEA Coordinated Research Project (CRP) has been launched to study the impact of ocean acidification on socio-economically important seafood species. This global project, funded through the OA-ICC, includes involvement from 17 countries using standardized experimental methodologies to test ocean acidification impact on various species of shrimp, sea urchins, fish, and molluscs. Project participants will assess a set of commercially relevant parameters such as growth, survival, taste and texture. They will also study additional parameters depending on the expertise of their respective laboratories, including calcification, metabolic changes, and bioaccumulation of metals using nuclear and isotopic techniques.

The project is expected to generate comparable baseline data on sensitivity to ocean acidification in key seafood species around the world. Project participants will engage with local fisheries, aquaculture industries and the general public through activities such as seafood tastings, with the goal to raise awareness and inspire concrete actions for adaptation and mitigation in their respective countries.

Participants of this CRP met at the University of Gothenburg Sven Lovén Centre for Marine Infrastructure in Kristineberg, Sweden on 26-30 August to launch the project. This kick-off meeting allowed participants to finalize methods before beginning their experiments. More information on this CRP can be found here.

Local host Sam Dupont showing meeting participants the marine research station in Kristineberg. (Photo: Lina Hansson, IAEA)

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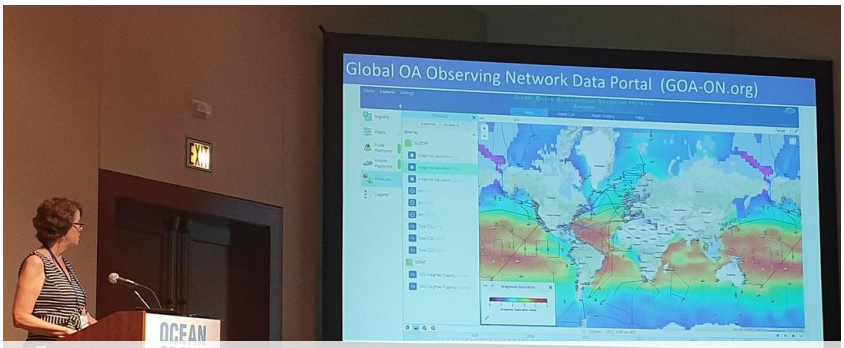
Ocean acidification highlighted at OceanObs'19 decadal conference

Advancements in ocean acidification science were featured at the OceanObs'19 conference, held 16-20 September 2019 in Honolulu, Hawaii. At the conference, 1500 experts from more than 70 countries communicated the decadal progress of ocean observing networks and charted innovative solutions to society's growing needs for ocean information in the coming 10 years.

Representatives of the Global Ocean Acidification Observing Network (GOA-ON) actively participated in sessions and panels focusing on a wide array of topics such as capacity building, new technology, the UN Sustainable Development Goal 14 and the UN Decade of Ocean Science for Sustainable Development. The outcomes of the conference as well as 130 Community White Papers will be the roadmap for future ocean observation. The OA-ICC contributed to one of these Community White papers, which can be found here.



Libby Jewett, NOAA Ocean Acidification Program Director, presenting the GOA-ON Data Portal at the OceanObs'19 Conference (Photo: Benjamin Pfeil, University of Bergen)

Community of Ocean Action on Ocean Acidification holds fourth webinar

The Community of Ocean Action on Ocean Acidification (COA on OA) held its fourth webinar on 25 September 2019. The webinar included presentations from Dr Peter Thor from the Swedish Meteorological and Hydrological Institute (SMHI) on Sweden's plans to address and support SDG14.3, including through a national ocean acidification monitoring programme, and from Dr Dorothee Bakker, University of East Anglia, UK, who presented on the Surface Ocean CO2 Atlas (SOCAT). The webinar recording can be found here.

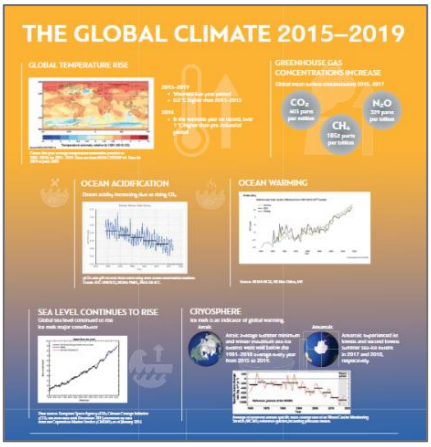
New COA on OA Voluntary Commitments can be submitted at any time on the COA on OA website.

COMMUNITIES OF OCEAN ACTION
IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT GOAL 14

Ocean Acidification included in major climate change reports

The Intergovernmental Panel on Climate Change (IPCC) published its Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) on 25 September. The ocean and the cryosphere–the frozen parts of the planet–play a critical role for life on Earth and host a wide range of unique ecosystems. The Special Report is the first IPCC Report to focus on the role of the ocean in the global climate and the effects of greenhouse gas emissions on the ocean, including ocean warming, acidification, oxygen loss and sea level rise. The Special Report outlines climate-related risks and consequences if no action is taken to address unprecedented and enduring changes in the ocean and cryosphere.

The World Meteorological Organisation (WMO) released its Report on the Global Climate in 2015-2019. Ocean acidification has recently been adopted as a WMO Global Climate Indicator, and therefore trends in ocean acidification were included in this report.



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OA-ICC supports intercomparison of methods for studying coral calcification rates

As part of the OA-ICC's intercomparison activities, a study was conducted to compare different methods for quantifying coral calcification rates. Several methods exist for quantifying this important parameter used in studying coral response to ocean acidification and other stressors. As more studies on coral calcification rates are conducted, it is increasingly important to compare the various methods being used in the community. An intercomparison study conducted at the IAEA Environment Laboratories in Monaco in collaboration with colleagues at Laboratoire d'Océanographie de Villefranche, the Monaco Scientific Centre, and the Cienfuegos Environmental Studies Centre in Cuba, recently submitted a paper in the journal Biogeosciences (accessible here). The study found that out of the four methods used, three of them were highly correlated, while the Carbon-13 incorporation method was not comparable and is therefore not recommended for measuring calcification rates.

Dr. Miguel Gómez Batista from the Cienfuegos Environmental Studies Centre, Cuba was a visiting scientist at the IAEA Environment Laboratories to collaborate on this project (Photo: François Oberhaensli, IAEA)

NEXT ISSUE

- *IAEA INT/7/019 Coordination Meeting,* Guayaquil, Ecuador, 7-11 October 2019
- *Second Regional Meeting of the Ocean Acidification International Reference User Group (OA-iRUG),* Zanzibar, Tanzania, 28-29 October 2019
- *UNFCCC 25th Conference of the Parties (COP25),* Santiago, Chile, 2-13 December 2019
- *Basic training course on ocean acidification: carbonate chemistry measurements, experimental design and the application of nuclear and isotopic techniques,* Monaco, 2-6 December 2019

OA-ICC online resources:

- **OA-ICC news stream** - recent publications, media coverage, meeting announcements, jobs etc.
- **OA-ICC website –** Information about activities and resources for different audiences / languages
- **OA-ICC bibliographic database** - over 5,700 references with citations, abstracts and keywords.
- **OA-ICC portal for OA biological response data** – access to over 1,000 data sets along with references.

The IAEA OA-ICC promotes global collaboration and activities to advance ocean acidification science, capacity building, and communication

Contact the OA-ICC: oaicc@iaea.org
OA-ICC project office: Lina Hansson, Marine Lebrec, Hasti Dessa and Peter Swarzenski