



OA-ICC HIGHLIGHTS

April - June 2017

Promoting global cooperation
in a changing ocean world



SCIENCE



The impacts of acidification on marine ecosystems are complicated by a suite of other concurrent perturbations (e.g. ocean warming, loss of nutrients, deoxygenation). Therefore, new research perspectives and methodologies on how to best unravel the

compounding effects of these multiple stressors are much needed. This is the task of the trans-disciplinary [SCOR Working Group 149](#).

The OA-ICC co-organized a technical meeting of this Working Group at the IAEA in Monaco, 12-14 June 2017, that focused on the development of best practices for multiple-stressor experiments. The group took a three-tiered approach to develop a web-based best practice resource which will be made available to the global community: (1) initial decision support to navigate through this complex research topic via flow charts and questionnaires; (2) a «Virtual Marine Scientist» experimental design tutorial to assist researchers with the selection and refinement of the most suitable design for their research question(s) and priorities; and (3) a series of webinars to assist researchers to further develop their experimental designs. A course book that provides links between each of these three strands, along with other information, will also be available via open access. These resources are planned to be available online by summer 2018. More information is available [here](#).

The OA-ICC facilitated the second meeting of the “**Ocean Solutions Initiative**”, Monaco, 18–20 April 2017. The group further met in Potsdam in June 2017. The goal was to finalise the assessment of 13 ocean-based measures to reduce the risks of climate change on key marine ecosystems and ecosystem services. A review article entitled “**Ocean solutions to address climate change and its effects on marine ecosystems**” is in preparation.

An IAEA consultancy was initiated by the OA-ICC to implement use of the new oceanographic standards (TEOS-10) for temperature and salinity (conservative temperature and absolute salinity) in four public software packages that are used widely by the community to compute carbonate chemistry. These packages (seacarb, mocsy, CO2SYS-Matlab, and CO2SYS-Excel) have now been extended to optionally use the new TEOS-10 standard ; the former standard (EOS-80 : practical salinity and *in situ* temperature) remains as the default.

The OA-ICC contributed to a presentation at the [Blue Planet Symposium](#), Maryland, USA, 31 May - 2 June 2017, on the current information needs and gaps, and emphasized existing initiatives on ocean challenges while exploring new cooperation prospects.

COMMUNICATION

Mr David Osborn, Director of the IAEA Environment Laboratories, attended the [UN Conference to Support the Implementation of Sustainable Development Goal 14](#), held in New York on 5-9 June 2017. As a panellist in the «**Partnership Dialogue 3 - Minimizing and addressing ocean acidification**», Mr Osborn highlighted the key role of isotopes as precision tools to study environmental processes, IAEA’s work on ocean acidification, and the imperative of improved ocean governance to attain SDG14.

The Ocean Acidification [News Stream](#) just recently passed the 1,000,000 hits mark. Overall, it has welcomed more than 160,000 visitors from nearly 180 countries and published over 10,000 posts, since its launch in 2006.

CAPACITY BUILDING



Photo credit: J. Krickl/IAEA

The OA-ICC co-organized a Coordination Meeting on Standardized Methodology and Networking to Address Ocean Acidification, 10-12 April 2017, Vienna. The meeting ran under the umbrella of the IAEA Technical Cooperation project “**Supporting a**

Global Ocean Acidification Observing Network – towards Increased Involvement of Developing States” (INT7019), seeking to increase understanding of ocean acidification and to enhance cooperation between Member States.

The goal of the meeting was to facilitate information exchange between the 27 represented nations and to align the project work plans with the results of the discussion. Participants had a chance to present their existing capacities and needs, as well as their current advancements, and discuss prospective regional and interregional collaboration opportunities for data sharing, capacity building, dissemination and outreach etc. [More information](#).

In the framework of the above mentioned IAEA TC project (INT7019), three young researchers from Chile, Brazil and Peru were able to participate in an interdisciplinary cruise on ocean acidification and deoxygenation in the South Pacific, co-organized by [GEOMAR](#) and [IMARPE](#) under the KOSMOS Off-Shore Mesocosms for Oceanographic Studies programme. Over the course of two months (February - April 2017), the fellows had a chance to learn from an international group of experts and obtain field hands-on experience in areas such as mesocosm deployment, sampling and data collecting, data analysis and interpretation etc.

Interested in knowing more about the OA-ICC online resources? Have a look at this [video presentation](#) !

OA-ICC
ONLINE
RESOURCES

- [OA-ICC news stream](#) - recent publications, media coverage, meeting announcements, jobs etc.
- [OA-ICC web site](#) - resources on ocean acidification listed according to audience and language
- [OA-ICC bibliographic database](#) - over 4,300 references with citations, abstracts and keywords
- [OA-ICC data compilation](#) on the biological response to ocean acidification - access to experimental data from 850 scientific papers