



**IAEA**

International Atomic Energy Agency

*Atoms for Peace and Development*

**Technical Meeting on Ocean Acidification  
Meta-Analyses Using the Ocean Acidification  
International Coordination Centre Bibliographic  
Database and Other Data Resources**

**Virtual participation via Microsoft Teams**

**13 – 17 February 2023**

**Ref. No.: EVT1904960**

**Information Sheet**

## Introduction

Ocean acidification is a direct consequence of the release of anthropogenic CO<sub>2</sub> into the atmosphere. It has been a major area of work of the IAEA through the Ocean Acidification International Coordination Centre (OA-ICC). Over the years, the OA-ICC has developed key resources for the ocean acidification community including a bibliographic database and a data compilation which facilitates data comparison and meta-analyses. The use of these resources is increasingly important to synthesize the present knowledge, test new hypotheses and identify new research directions. Moreover, it provides a unique opportunity to create new knowledge for research teams in developing countries with limited access to field and laboratories. The purpose of the event is to promote the use of the OA-ICC databases through (i) teaching of the basics of synthesis and meta-analysis methodologies; (ii) identification of key questions that can be answered through synthesis and meta-analysis using the OA-ICC resources; and (iii) work on individual meta-analysis projects. Participants will be given some support beyond the training to develop their own meta-analysis projects.

## Objectives

The Ocean Acidification International Coordination Centre (OA-ICC) promotes data access and sharing within the ocean acidification research community. The OA-ICC provides access to two online databases:

- A bibliographic database which currently includes more than 9,800 references with custom OA-ICC keywords and is shared using Zotero and pCloud.
- A data compilation which facilitates data comparison and meta-analyses. To easily filter and access relevant biological response data from this compilation, a user-friendly portal was developed.

During this workshop, participants will learn:

- (i) Basics of the different synthesis and meta-analysis methodologies (narrative, semi-quantitative, quantitative) through lectures and critical evaluation of existing published material.
- (ii) How to navigate the OA-ICC databases and how to use these resources to test new hypotheses.
- (iii) Identify and develop their own questions and identify collaborators within the course.

The training will continue after the course through a mentoring program. Each participant will have the opportunity to work with an expert on their individual project with the goal to publish meta-analysis articles relevant for their region.

## Target Audience

The course is open to 10 trainees. Priority will be given to early-career scientists with experience in ocean acidification and marine biology. At least one publication in the field of ocean acidification is required. Participants should have an interest in data analyses and syntheses as well as some time to invest into a meta-analysis project beyond the course.

## Working Language(s)

English

## Expected Outputs

Increased capacity to perform meta-analyses and increased networking among scientists working on ocean acidification. Initiate/deepen connections with international networks such as the Global Ocean Acidification Observing Network (GOA-ON; [www.goa-on.org](http://www.goa-on.org)). Participants will also work on personal projects, developing strategies for their own research and a data-based projects using data resources from the OA-ICC.

## Structure

The training will include lectures and guest lectures and assignments in smaller groups (the level will depend on the basic knowledge of the selected participants). Subjects to be covered include:

- Best-practices in ocean acidification research and monitoring
- State-of-the-art in the field of ocean acidification and other global drivers
- Theory on different types of meta-analyses and synthesis
- Data extraction from OA-ICC databases, and other sources
- Standardization and data analysis
- Scientific writing

## Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent

Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **12 January 2023**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate.

## Venue

The event will be held virtually.

## Additional Information

Only those participants who have been designated by the relevant authorities of an IAEA Member State and have been selected by the IAEA will be informed by **23 January 2023**.

Participants should ensure continuous access to a stable internet connection for the duration of the course.

## Additional Requirements

The participants should have a university degree in marine chemistry, biology, oceanography or a related scientific field, and should be currently involved in or planning to study multiple stressors.

Selection will be based on merit and interest. Your applications should include:

- \* A motivation letter with a short description of your research interest, why you would like to participate, and your plans regarding present and future ocean acidification research (max one A4 page)

- \* CV with publication list

## **IAEA Contacts**

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretary.