



IAEA

International Atomic Energy Agency

Atoms for Peace and Development

Winter School on Ocean Acidification and Multiple Stressors — Second Edition

IAEA Marine Environment Laboratories, Monaco

18–29 November 2024

Ref. No.: EVT2305434

Information Sheet

Introduction

The **Winter School on Ocean Acidification and Multiple Stressors — Second Edition** is part of the capacity building program of the IAEA Ocean Acidification International Coordination Centre (OA-ICC). The program aims to minimize and address the impacts of ocean acidification (Sustainable Development Goal 14.3) and related stressors.

Objectives

Human health and well-being are closely linked to the ocean and the many goods and services it provides. However, the ocean is under cumulative stress from a range of human-driven pressures, including pollution, warming, deoxygenation, and acidification, among others. The impact of multiple ocean stressors on marine life and ecosystem function is not well understood, yet it is central to their mitigation and/or to support adaptation strategies that might minimize their negative effects on species, ecosystems, and associated services.

To date, studies often focus on single species or groups of organisms and the influence of a single stressor, while information about ecosystem responses to multiple stressors is limited. Innovative science is needed to resolve the complexity of the interplay of stressors and the resulting impacts.

The aim of this course is to train early-career scientists working on ocean acidification and entering the multiple stressor field with the goal to better understand key concepts (e.g., What is a stressor? What is a mode of action? What is an interaction?), assist them to be able to measure and manipulate seawater physico-chemistry, develop relevant experimental strategies, set up pertinent experiments in the laboratory and in the field, analyse complex datasets, avoid typical pitfalls and ensure comparability with other studies.

Target Audience

The course is open to 10-12 trainees. Priority will be given to early-career scientists with experience in marine environmental changes with a focus on ocean acidification. At least one publication in the field of marine environmental changes is required.

Working Language(s)

English

Expected Outputs

Increased capacity to study the impact of multiple stressors on marine ecosystems and increased collaboration and networking among scientists working on ocean acidification. Initiate/deepen engagement of trainees with international networks such as the Global Ocean Acidification Observing Network (GOA-ON; www.goa-on.org). Participants will also work on personal science projects, developing strategies for their own research and a data-based project using data resources from the OA-ICC.

Structure

The training will include lectures in plenary, guest lectures and hands-on experiments in smaller groups (the level will be adapted to the current knowledge of the selected participants). Subjects to be covered include theoretical aspects of multiple stressor research, how to identify relevant scientific questions, best practices for seawater physico-chemistry characterization, experimental strategies and design, lab- and field-based methods for measuring organism responses to multiple stressors, including nuclear and isotopic techniques, and data analysis, processing, and modeling.

Participation and Registration

Scientists wishing to participate in the event must 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 **10 October 2024**. 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.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made using the **Grant Application Form (Form C)**, which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **10 October 2024**.

Venue

The event will be held at the IAEA Marine Environment Laboratories in Monaco.

Participants must make their own travel and accommodation arrangements. The closest airport is Nice, France.

Visas

Participants who require a visa to enter France should submit the necessary application as soon as possible to the nearest diplomatic or consular representative of France.

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 **21 October 2024**.

The course is funded through the IAEA and co-sponsored by the Prince Albert II of Monaco Foundation.

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, including ocean acidification.

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 and multiple stressors (max one A4 page)

- * CV with publication list

IAEA Contacts

Scientific Secretary:

Ms Lina Hansson

IAEA Marine Environment Laboratories
Department of Nuclear Sciences and Applications
International Atomic Energy Agency
98000 MONACO
PRINCIPALITY OF MONACO

Tel.: +377 97 97 72 06

Fax: +377 97 97 72 73

Email: L.Hansson@iaea.org

Administrative Secretary:

Ms Carolina Galdino

IAEA Marine Environment Laboratories
Department of Nuclear Sciences and Applications
International Atomic Energy Agency
98000 MONACO
PRINCIPALITY OF MONACO

Tel.: +377 97 97 72 57

Fax: +377 97 97 72 73

Email: C.Galdino@iaea.org

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.

Participation Form

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To be completed by the participant and sent to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA) either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary L.Hansson@iaea.org and to the Administrative Secretary C.Galdino@iaea.org.

Deadline for receipt by IAEA through official channels: 10 October 2024

Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms
Institution:		
Full address:		
Tel. (Fax):		
Email:		
Nationality:	Representing following Member State/non-Member State/entity or invited organization:	

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.

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Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms:
Mailing address:	Tel.:	
	Fax:	
	Email:	
Date of birth (yy/mm/dd):	Nationality:	

1. Education (post-secondary):

Name and place of institution	Field of study	Diploma or Degree	Years attended from to	

2. Recent employment record (starting with your present post):

Name and place of employer/ organization	Title of your position	Type of work	Years worked from to	

3. Description of work performed over the last three years:

4. Institute's/Member State's programme in field of event:

Date: **Signature of applicant:** _____

Date: **Name, signature and stamp of Ministry of Foreign Affairs, Permanent Mission
to the IAEA or National Atomic Energy Authority** _____