IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Fourth Winter School on Ocean Acidification and Multiple Stressors

IAEA Marine Environment Laboratories, Monaco

30 November - 11 December 2026

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Information Sheet

Introduction

Ocean acidification is a global environmental stressor that threatens marine life and the livelihoods of coastal communities. Ocean acidification is caused by increasing atmospheric carbon dioxide being absorbed by the ocean, resulting in changes to seawater carbonate chemistry, including a drop in pH. Due to global concerns about its consequences, ocean acidification is included in international policies such as Target 3 of UN Sustainable Development Goal (SDG) 14 and Target 8 of the Global Biodiversity Framework (GBF).

The IAEA's Ocean Acidification International Coordination Centre (OA-ICC) supports IAEA Member States to minimize and adapt to OA and report towards SDG 14.3 and the GBF, with a strong focus on building capacity to study ocean acidification and related stressors and promoting international collaboration and coordination.

Ocean acidification is not happening in isolation, but in combination with other human-driven pressures, including pollution, warming, and oxygen loss. The impact of multiple ocean stressors on marine life and ecosystem function is not well understood, yet this information is crucial to inform adaptation

strategies that might minimize negative effects on organisms, ecosystems, and associated socioeconomic benefits.

The **Fourth Winter School on Ocean Acidification and Multiple Stressors** is part of the capacity building program of the OA-ICC. This two-week training course will provide participating scientists with a thorough understanding about key concepts and experimental design used to study the impacts of ocean acidification in the context of additional stressors.

The Winter School is organized by the IAEA OA-ICC in partnership with the Prince Albert II of Monaco Foundation through the OACIS Initiative (Ocean Acidification and other ocean Changes – Impacts and Solutions) and the Laboratoire d'Océanographie de Villefranche (LOV).

Objectives

The aim of the Winter School is to train early-career scientists who already have experience researching ocean acidification on how to study acidification in the context of other co-occurring stressors. Through lectures and practical exercises in the laboratory, the students will gain understanding of key concepts in multiple-stressor research (e.g., What is a stressor? What is a mode of action? What is an interaction?), purposeful experimental design, and analysis of complex datasets. During the course, participants will collaborate on a joint laboratory experiment to elucidate the effects of three simultaneous drivers on marine organisms.

Target Audience

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

Working Language

English

Expected Outputs

Increased capacity to study the impact of ocean acidification in combination with other environmental stressors on marine organisms and increased collaboration and networking among participating scientists. Increased 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 resources of the OA-ICC.

Structure

The training will include lectures and hands-on experiments in smaller groups (the level will be adapted to the knowledge of the selected participants). Subjects to be covered include theoretical concepts of multiple stressor research; how to identify relevant research questions; experimental design and methods for measuring organism responses to multiple stressors, including nuclear and isotopic techniques; and data analysis, processing, and modeling.

The course will use resources and tools developed by the Changing Ocean Biological Systems (COBS) project of the Scientific Committee on Oceanic Research (SCOR) on multiple stressors, such as the MEDDLE simulator allowing to perform virtual multiple-stressor experiments.

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 or invited organization, participants are requested to submit their application via the InTouch+ platform (https://intouchplus.iaea.org) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **6 November 2026**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (https://intouchplus.iaea.org):
   - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
   - Persons without an existing NUCLEUS account can register here.

2. Once signed in, prospective participants can use the InTouch+ platform to:
   - Complete or update their personal details under 'Complete Profile' and upload the relevant supporting documents;
   - Search for the relevant event under the 'My Eligible Events' tab;
   - Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
   - If applicable, indicate whether a paper is being submitted and complete the relevant information;
   - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
   - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
   - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **6 November 2026**.

For additional information on how to apply for an event, please refer to the InTouch+ Help page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

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, together with the submission of the application, by **6 November 2026**.

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

The 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 **11 November 2026**.

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

Additional Requirements

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 the ecological impact of multiple stressors, including ocean acidification. Experience with the R software is strongly encouraged.

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

* A motivation letter with a short description of the candidate's research interests and how the course would benefit the applicant's current or future research on ocean acidification and multiple stressors (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.