

## MARINE BIODIVERSITY MONITORING HARMONISATION

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Understanding and assessing marine environmental status to protect against adverse impact from human activities requires scientifically sound assessments based on quantitative monitoring of marine biodiversity.

The EU has a comprehensive policy framework related to the protection of marine biodiversity (e.g. the Marine Strategy Framework Directive, the Birds and Habitats Directives, the Water Framework Directive, the Maritime Spatial Planning Directive, the European Biodiversity Strategy for 2030, and the Nature Restoration Law). However, the implementation of these policies requires high-quality marine biodiversity data to underpin evidence-based mitigation measures to be undertaken.

While the EU has some of the most monitored seas on the planet, monitoring programmes for marine biodiversity are still currently often dispersed or incoherent. Methodologies are not harmonized, data quality is not always fit-for-purpose and the spatiotemporal scales and species coverage often do not respond to policy needs. There are also large-scale geographical contrasts in biodiversity monitoring, leading to assessments of different quality and coverage. Furthermore, data flows are complex and not all data are readily accessible and usable. These inconsistencies represent a hindrance to informed policy decisions.

The European Commission, at the initiative of the JRC, launched a [study](#) in 2022 which provided information on the organisational set-up and confirmed these shortcomings. Therefore, it is crucial to improve and harmonise the monitoring of marine biodiversity across Europe. This requires an in-depth analysis of monitoring methods, frameworks, workflows, data flows, stakeholders and ongoing activities, with the aim to recommend ways forward towards the Future of Marine Biodiversity Monitoring in the EU and shared marine basins.

### THIS COLLABORATIVE STUDY – WHAT WILL WE DO?

This collaborative study between the European Commission's Joint Research Centre, the study team, and relevant stakeholders, aims at analysing the state of marine biodiversity monitoring and to recommend ways forward towards a future improved set-up, acknowledging existing initiatives and stakeholder needs. The study, ending in December 2024, is part of a wider activity led by the European Commission to improve marine biodiversity monitoring across European marine waters.

Within the context of the EU Mission "Restore our oceans and waters by 2030" and the implementation of EU marine environmental legislation, this study will identify and address these challenges together with invited stakeholders and propose options for strengthening marine biodiversity monitoring in Europe. The main activities of the study are:

- ▶ Connecting with existing networks and stakeholders, ensuring the uptake of all available developments and information;
- ▶ Reviewing and cataloguing existing and emerging methodologies for monitoring marine biodiversity;
- ▶ Identifying potential for harmonisation and synergies between methodologies and the overarching strategies to deliver more accurate, reliable, consistent, and coherent marine biodiversity data, responding to the needs outlined in the EU policies;
- ▶ Identifying the main data flows and repositories for marine biodiversity data reporting, their interoperability with biodiversity data standards and data infrastructures, and their management, including critical analysis in terms of e.g. accessibility and usability;
- ▶ Developing, in a collaborative way, recommendations for a future set-up, including the main points of a strategy for improvement and a roadmap for its implementation.

## THIS STUDY – HOW WILL WE DO IT?

Throughout this study, access to the current knowledge on monitoring methodologies and data flows will be facilitated through a dedicated online tool. Additionally, we aim to connect with existing initiatives, international agreements and projects by engaging with experts, researchers, knowledge platform coordinators, public officials, and representatives of international institutions.

Two workshops will be co-organised by the European Commission's Joint Research Centre and the study team. Selected stakeholders will be invited to participate. These workshops are planned for 4-6 June 2024 (online), where we will discuss the state of marine biodiversity monitoring in the EU, and 5-7 November 2024 (in person), where we will develop recommendations for its future development.

## WHO IS INVOLVED?

The study is a collaboration between the European Commission's Joint Research Centre and a consortium of institutions led by ACTeon (France) and with the Institut de Ciències del Mar of Barcelona of the Consejo Superior de Investigaciones Científicas (ICM-CSIC, Spain), the Estonian Marine Institute of the University of Tartu (EMI-University of Tartu, Estonia) and the Department of Marine Sciences of the University of the Aegean (DMS-University of the Aegean, Greece) as partners. The study, launched by the European Commission, is co-implemented by the Joint Research Centre and the consortium, and managed by the European Climate, Infrastructure and Environment Executive Agency (CINEA).

This activity will involve key players in the planning and implementation of marine biodiversity monitoring in Europe and the shared marine basins. It involves EC DGs, European Agencies, EU Member State experts, Regional Sea Conventions, International Agreements, existing major networks and initiatives, as well as scientists leading major research projects.

Participants will be invited to actively contribute through interviews, questionnaires and participate to the two workshops.

## CONTACT

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🌐 <https://joint-research-centre.ec.europa.eu/scientific-activities-z/marine-biodiversity/marine-biodiversity-monitoring>

