

Eutrophication and acidification in marine ecosystems: North Sea use case

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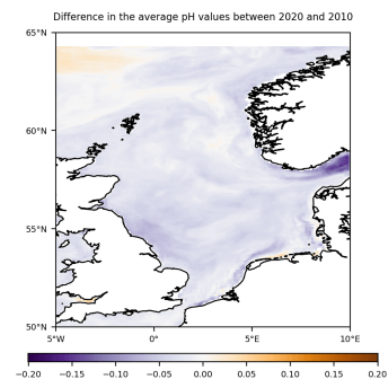
Coastal Services

Overview

Marine ecosystems are severely exposed to increasing temperatures and acidifying sea waters, as a consequence of human activities. The timely assessment of marine ecosystem conditions required to combine physical and biogeochemical data produced by different monitoring services operating at the best available spatiotemporal scales. All this information requires appropriate data workflow management for its correct integration and successful provision of consistent environmental metrics.

This use case will demonstrate a consistent exploitation of Copernicus data to support the monitoring of the SDG 14 'Life under water' for the North Sea, as developed within the [SDG-EYES project](#).

The North Sea use case will set the ground to implement a spatially explicit mapping of seawater acidification and eutrophication using Copernicus Marine datasets. Automated products are being developed to monitor the SDG indicators "Global mean ocean surface acidity" and "Marine waters affected by eutrophication" (as defined by [Eurostat ESMS indicator profile](#)), with a co-design approach involving relevant stakeholders.



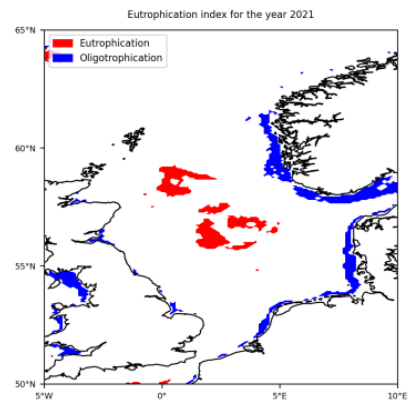
COPERNICUS MARINE SERVICE

Any question, please contact
servicedesk.cmems@mercator-ocean.eu
<https://marine.copernicus.eu>

Products used

Atlantic- European North West Shelf- Ocean
Biogeochemistry Reanalysis

Atlantic Ocean Colour (Copernicus-GlobColour), Bio-Geo-
Chemical, L4 (daily interpolated) from Satellite
Observations (1997-ongoing)



Benefits for users

The use case products will enable users to evaluate eutrophication conditions and acidification tendencies in the North Sea with the best available spatiotemporal detail. It allows to detect impacts of human activities and climate change, relevant under the EU policy framework (Green Deal, Mission Ocean, CFP, MSFD, MSP and International Ocean Governance).

Useful links

[SDG EYES website](#)

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