

# Acidification in the Adriatic Sea

Oceans absorb about a quarter of the CO<sub>2</sub> that is released into the atmosphere every year; so as atmospheric CO<sub>2</sub> levels increase, so do the levels in the ocean. This CO<sub>2</sub> absorption is changing the chemistry of the seawater, also called ocean acidification. To understand the changing chemistry of the oceans and the impacts of ocean acidification on marine ecosystems, observations of key physical, chemical and biological parameters are crucial. This is one of the purposes of the [E2-M3A](#) observatory in the Adriatic Sea operated by OGS, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale in Trieste, Italy. This observatory is part of the FP7-EU project FixO3 (Fixed Point Open Ocean Observatory Network).

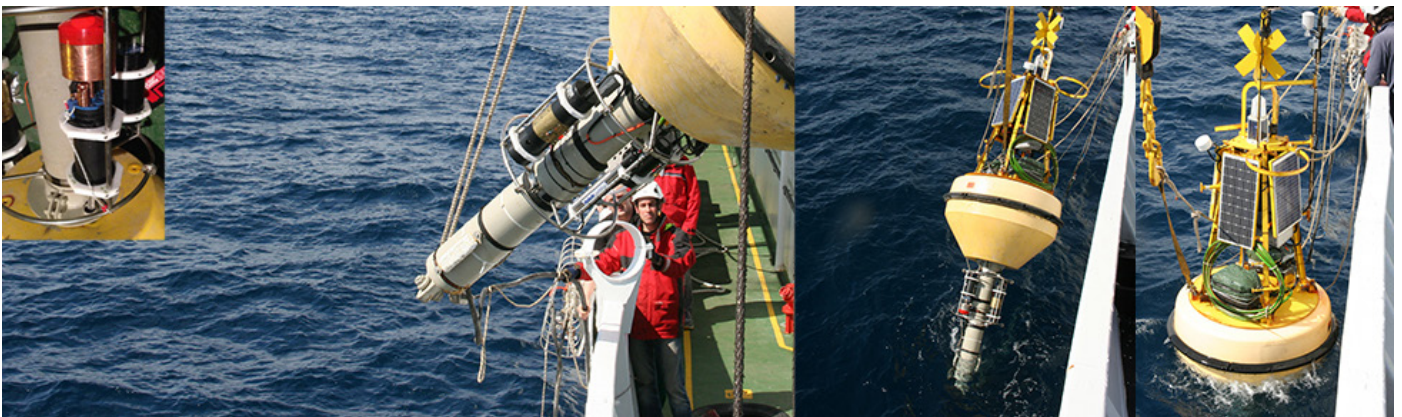


Photo courtesy of Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS di Trieste

The E2-M3A observatory is positioned in the center of a cyclonic gyre where deep water convection process takes place, involving both the atmosphere and the sea. This key position is ideal to study the carbon system and therefore the [COMBO](#) project (COMBined testing of new acoustic profilers with Biochemical Optodes in the Adriatic Sea) was started at this site in April 2015.

Using a SeaGuardII DCP equipped with pH, pCO<sub>2</sub> and Oxygen Optodes deployed close to the surface under the buoy downward looking offers new possibilities. [More information on the project.](#)

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