

Endorsed

OOI Biogeochemical Sensors Data: Best Practices & User Guide

Author(s): Hilary I. Palevsky, Sophie Clayton, Dariia Atamanchuk, Roman Battisti, Jennifer Batryn, Annie Bourbonnais, Ellen M. Briggs, Filipa Carvalho, Alison P. Chase, Rachel Eveleth, Rob Fatland, Kristen E. Fogaren, Jonathan Peter Fram, Susan E. Hartman, Isabela Le Bras, Cara C. M. Manning, Joseph A. Needoba, Merrie Beth Neely, Hilde Oliver, Andrew C. Reed, Jennie E. Rheuban, Christina Schallenberg, Michael F. Vardaro, Ian Walsh, Christopher Wingard

Essential Ocean, Climate, Biodiversity Variable(s): Oxygen, Nutrients, Inorganic Carbon, Particulate Matter, Ocean Colour

Supporting or other variables:

Network(s): US Ocean Observatories Initiative (OOI)

Sensors: oxygen optodes: SBE 43, SBE 43F, Aanderaa Optode 4330 and 4831: nitrate UV spectrometer sensors: SUNA V2 and ISUS; inorganic carbon Pro-Oceanus CO₂-Pro Atmosphere, Sunburst SAMI-pH, and Sunburst SAMI-CO₂; fluorometer and optical backscatter sensors: ECO-FLBBCD, ECO-FLbb, ECO-FLNTU, ECO-FL.

Endorsed by (GOOS PANEL, eg OCG, BIOECO): GOOS Biogeochemistry Panel

Endorsement date: July 2023 (Version 1.1.1)

DOI Identifier: https://doi.org/10.25607/OBP-1865.2

The GOOS best practice endorsement process has been developed by the GOOS and the Observation Coordination Group (OCG) in conjunction with the Ocean Best Practices System (OBPS).

The aim is for global networks (eg the International Argo programme through GOOS OCG) or groups of experts (eg. the GOOS Biogeochemical Panel) to endorse and share methods which have reproduced superior results for confidence in and uptake by the broader ocean community.

The endorsed methods can range from standard operating procedures to field manuals and have been adopted by community review as 'globally' accepted methods. Following best practices improves the reproducibility of science research, and interoperability across disciplines and datasets by standardizing methods and data collection. It allows for research to be more efficient, leads to quality datasets, and supports future proofing data.

Endorsed GOOS best practices have been through a strong identifying process. They have been adopted and used by established ocean observers and therefore represent a strong basis for the ocean science community.