

OOI Biogeochemical Sensor Data Working Group

- Goal: **To broaden the use of OOI biogeochemical sensor data and increase community capacity to produce analysis-ready data products**
- Working Group formed with 25 members in July 2021
 - 3 day virtual kick-off meeting in July 2021
 - Ongoing collaboration in sub-groups + full working group follow on meetings in September, October and December 2021
 - 4 day in person workshop planned for June 2022 at WHOI (in conjunction with OCB)



OOI BGC WG Organisers:

Sophie Clayton (ODU)

Hilary Palevsky (Boston College)

Heather Benway (WHOI)



<https://www.us-ocb.org/ooi-dataset-community/>

Working Group Scope: four groups of biogeochemical variables and associated sensors which have been widely deployed across the OOI arrays and are also commonly used in other ocean observing and autonomous biogeochemical sensor programs

Array	Platform	Oxygen (chapter 2)		Nitrate (chapter 3)	Carbonate chemistry (chapter 4)			Bio-optics (chapter 5)
		<i>Aanderaa</i>	<i>SeaBird</i>	<i>SUNA/ISUS</i>	<i>pH: SAMI</i>	<i>pCO₂: SAMI</i>	<i>pCO₂: Pro-Oceanus</i>	<i>WetLabs fluorometers</i>
Global	Fixed	7	0	2	4	4	1	7
	Profiler	2	0	0	0	0	0	2
	Gliders	2	0	1	0	0	0	2
Pioneer	Fixed	6	0	3	6	3	3	3
	Profiler	0	7	0	0	0	0	7
	Gliders	2	0	2	0	0	0	2
Endurance	Fixed	12	0	6	12	8	4	8
	Profiler	6	2	5	2	2	0	7
	Gliders	2	0	0	0	0	0	2
Cabled	Fixed	4	0	0	2	0	0	2
	Profiler	2	2	2	2	2	0	4
OOI program total		72	11	28	38	27	10	73

OOI BGC Working Group membership

Oxygen Sub-Group

Kristen Fogaren (Boston College)
Susan Hartman (National Oceanography Centre)
Isabela Le Bras (WHOI)
Cara Manning (UConn)
Jon Fram (OOI, OSU)

Carbon Sub-Group

Andrew Reed (OOI, WHOI)
Ellen Briggs (Univ. Hawaii)
Roman Battisti (Univ. Washington/NOAA PMEL)
Dariia Atamanchuk (Dalhousie Univ.)
Jennie Rheuban (WHOI)
Rachel Eveleth (Oberlin College)

Bio-optics Sub-Group

Merrie Beth Neely (NOAA)
Filipa Carvalho (National Oceanography Centre)
Alison Chase (Univ. Washington, APL)
Rob Fatland (Univ. Washington)
Christina Schallenberg (Univ. Tasmania)
Chris Wingard (OOI, OSU)

Nitrate Sub-Group

Annie Bourbonnais (Univ. South Carolina)
Hilde Oliver (WHOI)
Ian Walsh (Freelance Researcher)
Jennifer Batryn (OOI, WHOI)
Joseph Needoba (Oregon Health & Science Univ.)

Planned Working Group Products

- “Cookbook” intended for current and potential users of OOI biogeochemical data from across the oceanographic research community
 - User-friendly guide that will ultimately be submitted to the Ocean Best Practices repository & could be linked from the OOI website
 - Introduction chapter with overview material relevant to all types of OOI BGC sensors + four separate chapters for each sensor type
 - Goal: Complete and submit for review by external-to-working group experts in early 2022
- Peer-reviewed publication citing and presenting the cookbook
 - Intend to draft in early 2022 after cookbook draft is submitted for external expert review
- Synthesis report with recommendations for OOI
 - Intend to draft in early 2022 after cookbook draft is submitted for external expert review

SAVE THE DATE! Ocean Observatories Initiative (OOI) Biogeochemical Sensor Data User Workshop (June 16-18, 2022, Woods Hole, MA)

- In person workshop associated with the annual Ocean Carbon & Biogeochemistry (OCB) summer workshop
- During the first quarter of 2022, we will circulate an application to identify ~15-20 current or prospective OOI biogeochemical sensor data users (in addition to the working group members) to join the workshop
- Workshop agenda: present Working Group products to date & discuss science questions that can be addressed using OOI BGC data