

Supplementary File 2. Physicochemical and nutrient data for each sampling station with the respective depth layer (u.d. = under detection limit).

Sample	Depth [m]	Nitrate [μmol/l]	Phosphate [μmol/l]	OA [μmol/l]	Pressure [dbar]	Temperature [°C]	Salinity [PSS-78]	DO [μmol/kg]	Density [kg/m³]	Fluorescence [μg/L]	Turbidity [NTU]
Reference_CB_DCM	95	0.28	0.16	0.28	91	20.37	36.8	209.5	26.04	0.97	0.09
Reference_CB_Sub-DCM	170	11.2	0.73	2.67	166	18.04	36.5	171.49	26.42	0.04	0.08
Reference_CB_OMZ	460	26.79	1.6	9.62	463	11.54	35.45	72.48	27.04	0.05	0.08
CE_2019_19N_18W_DCM	20	11.05	0.85	2.32	27	17.83	35.85	50.06	25.96	1.05	0.21
CE_2019_19N_18W_Sub-DCM	60	28.61	1.79	7.74	65	14.8	35.62	30.02	26.5	0.05	0.08
CE_2019_19N_18W_OMZ	244	30.16	1.89	10.82	246	12.59	35.45	42.83	26.83	0.05	0.09
Reference_CVOO_DCM	69.8	9.93	0.7	2.7	70.3	19.66	36.42	156.01	25.65	0.57	0.09
Reference_CVOO_Sub-DCM	139.1	23.52	1.41	7.06	140	14.8	35.79	78.68	26.6	0.05	0.07
Reference_CVOO_OMZ	359.7	32.08	1.93	12.86	362.2	11.05	35.31	58.72	27.02	0.05	0.08
CE_2019_14N_25W(1)_DCM	35.1	3.43	0.32	1.8	35.3	21.95	36.43	204.93	25.18	1.1	0.11
CE_2019_14N_25W(1)_Sub-DCM	108.4	20.63	1.23	5.73	109.1	16.1	36.02	92.97	26.55	0.08	0.07
CE_2019_14N_25W(1)_OMZ	332.7	31.18	1.84	12.28	335	11.27	35.34	60.41	27.01	0.05	0.08
CE_2019_14N_25W(2)_DCM	48.2	u.d.	0.34	1.86	48.5	21.75	36.32	128.63	26.08	1.03	0.1
CE_2019_14N_25W(2)_Sub-DCM	98.7	17.23	1.34	6.64	99.3	15.78	35.86	80.51	26.54	0.11	0.08
CE_2019_14N_25W(2)_OMZ	375.9	33.43	1.95	13.34	378.4	10.86	35.28	57.44	27.02	0.05	0.08
CE_2019_14N_25W(3)_Sub-DCM	100.6	23.61	1.42	7.12	101.2	15.28	35.8	78.22	26.55	0.12	0.07
CE_2019_14N_25W(3)_DCM	20.4	4.4	0.41	1.85	20.5	21.64	36.45	170.62	25.69	1.81	0.14
CE_2019_14N_25W(3)_OMZ	351.2	32.01	1.91	12.98	353.5	11.06	35.32	58.26	27.02	0.05	0.07
CE_2019_18N_20W(1)_DCM	30.6	1.05	0.21	0.41	30.8	22.5	36.42	215.03	25.16	1.14	0.13
CE_2019_18N_20W(1)_Sub-DCM	119.7	24.99	1.54	7.74	120.5	14.8	35.8	68.06	26.64	0.05	0.07
CE_2019_18N_20W(1)_OMZ	385.2	32.88	2	13.13	387.9	11.2	35.35	53.19	27.02	0.05	0.07
CE_2019_18N_20W(2)_DCM	18.7	0.88	0.2	0.68	18.8	22.67	36.44	217.2	25.11	1.42	0.12
CE_2019_18N_20W(2)_Sub-DCM	119.7	27.12	1.66	9.07	120.4	13.64	35.52	65.23	26.6	0.07	0.08
CE_2019_18N_20W(2)_OMZ	399.2	34.06	2.04	14.19	402	10.68	35.26	48.56	27.02	0.06	0.07
CE_2019_18N_20W(3)_DCM	9.7	1.65	0.24	0.62	9.8	22.44	36.39	219.73	25.15	1.31	0.13
CE_2019_18N_20W(3)_Sub-DCM	119.3	24.78	1.54	7.57	120.1	14.96	35.78	64.15	26.58	0.06	0.07
CE_2019_18N_20W(3)_OMZ	380.1	32.6	1.98	13.56	382.7	11.02	35.34	46.33	27	0.05	0.07
CE_2019_18N_20W(4)_DCM	21.8	1.93	0.25	0.51	22	22.46	36.4	218.71	25.14	1.43	0.13
CE_2019_18N_20W(4)_Sub-DCM	98.4	24.1	1.43	6.98	99	15.13	35.89	77.38	26.58	0.08	0.08
CE_2019_18N_20W(4)_OMZ	348.1	31.21	1.85	11.95	350.5	11.74	35.43	53.38	26.98	0.05	0.08