

Experiment	Experiment 1	Experiment 2	Experiment 3
	“Early summer”	“Midsummer”	“Late summer”
Run time (h)	168	168	144
Initiation date	08/12/2015	05/01/2016	08/02/2016
Initiation time (GMT)	07:00	20:00	02:00
Latitude (° S)	-42.693	-42.693	-43.000
Longitude (° E)	8.738	8.737	8.500
Collection depth (m)	30	35	35
Sunrise : sunset (GMT)	03:30–18:30	04:00–19:00	04:40–18:40
Chl <i>a</i> (mg m <sup>-3</sup> )	0.97	0.84	0.90
Nitrate (μM)	10.60	12.80	13.90
Mean in mixed layer	10.41 ± 0.90	12.76 ± 0.39	12.92 ± 0.84
Silicate (μM)	1.46	1.43	1.39
Mean in mixed layer	1.49 ± 0.05	1.41 ± 0.02	0.84 ± 0.13
Phosphate (μM)	0.88	0.76	0.45
Mean in mixed layer	0.77 ± 0.11	0.76 ± 0.06	0.65 ± 0.21
DFe (nM)	0.16	0.17	0.05
Mean in mixed layer	0.22 ± 0.06	0.15 ± 0.003	0.09 ± 0.01
$F_v / F_m$	0.19 ± 0.06	0.30 ± 0.02	0.26 ± 0.01
$\sigma_{PSII}$ (nm <sup>-2</sup> )	14.79 ± 2.46	6.45 ± 0.40	7.08 ± 0.48
MLD (m)	33.77	56.96	43.32
Salinity	33.87	33.70	34.11
Temp (°C)	10.80	10.44	10.80
Average MLD PAR (mol photons m <sup>-2</sup> d <sup>-1</sup> )	18.29 ± 11.51	7.22 ± 7.36	5.60 ± 3.52
% light depth	14.83	11.59	10.66