



Supplement of

Spatial changes in community composition and food web structure of mesozooplankton across the Adriatic basin (Mediterranean Sea)

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Supplementary material

Table S1. List and abundance (N/m²) of the taxa collected in the different hauls from the three sub-areas of the Adriatic basin surveyed in June-July 2019 during MEDIAS 2019 survey.

Sub-basin	Northern Adriatic								Central Adriatic				Southern Adriatic			
Taxon	4	14	17	22	23	30	33	38	43	48C	54	64	5	11	48S	57
<i>Phylum</i> CNIDARIA																
<i>Class</i> HYDROZOA																
<i>Order</i> SIPHONOPHORAE																
<i>Suborder</i> CALYCOPHORAE	-	-	-	-	282.35	1623.53	360.78	-	-	-	7.84	462.75	175.54	-	690.20	7.84
<i>Phylum</i> ARTHROPODA																
<i>Subphylum</i> CRUSTACEA																
<i>Superorder</i> CLADOCERA																
<i>Evadne spinifera</i>	384.81	819.51	777.35	-	2766.80	9544.84	-	-	-	798.90	101.34	-	-	-	-	-
<i>Penilia avirostris</i>	-	204.88	518.24	-	922.27	3123.77	2569.08	4290.38	-	1681.90	-	173.41	446.35	1389.46	351.67	-
<i>Podon sp.</i>	962.03	2356.08	6477.95	1397.06	6455.87	2256.05	3050.78	5203.22	1577.78	672.76	-	173.41	267.81	1805.16	1406.68	-
<i>Pseudevadne tergestina</i>	-	-	-	-	7839.27	-	-	-	-	210.24	-	-	-	-	70.33	-
<i>Subclass</i> COPEPODA																
<i>Order</i> CALANOIDA																
<i>Acartia sp.</i>	29245.64	31243.68	99171.34	-	221000.72	14056.94	8831.21	185.40	1150.51	10175.47	506.68	2427.71	-	31.37	70.33	69.72
<i>Aetideidae</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	23.53	-	-
<i>Aetideus giesbrechti</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69.72
<i>Bradyidius armatus</i>	-	-	-	-	-	-	-	-	-	-	-	23.53	-	-	-	15.69
<i>Calanoidea</i>	9331.67	22741.30	46641.25	21421.57	94532.42	19610.30	33398.02	9676.17	36063.45	4204.74	6384.17	-	20532.07	46898.32	11464.43	14572.18
<i>Calanoidea</i>	-	-	-	-	-	329.41	196.08	23.53	274.51	172.55	12534.92	15376.65	156.86	-	674.51	62.75
<i>Calanus helgolandicus</i>	-	-	31.37	-	164.71	525.49	3349.02	-	603.92	23.53	800.00	1113.73	196.08	125.49	15.69	266.67
<i>Calanus sp.</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.53
<i>Calocalanus pavo</i>	-	-	-	-	-	-	7.84	-	-	-	-	-	15.69	-	-	-
<i>Calocalanus sp.</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.53	-
<i>Candacia armata</i>	-	-	-	-	-	-	31.37	47.06	-	-	-	-	-	15.69	94.12	7.84
<i>Candacia bispinosa</i>	-	-	-	-	-	-	-	-	-	-	-	-	15.69	-	-	-
<i>Candacia longimana</i>	-	-	-	-	-	7.84	-	-	-	-	-	-	-	-	-	-
<i>Candacia simplex</i>	-	-	-	-	-	-	-	-	-	-	-	-	7.84	-	-	-
<i>Centropages kroyeri</i>	-	-	-	-	-	-	-	7.84	-	-	-	-	-	7.84	-	-

<i>Monstrilla sp.</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.84	-
Class MALACOSTRACA																
Order AMPHIPODA																
<i>Eupronoe minuta</i>	-	-	-	-	-	-	-	-	-	-	7.84	-	-	-	-	-
<i>Hyperia sp.</i>	-	-	-	-	-	-	-	-	-	-	-	-	39.22	-	-	-
<i>Lestrigonus schizogeneios</i>	-	-	-	-	-	-	-	-	39.22	-	156.86	86.27	15.69	-	7.84	62.75
<i>Lycaea pulex</i>	-	-	-	-	-	-	-	-	-	-	-	-	7.84	-	-	-
<i>Phronima atlantica</i>	-	-	-	-	-	-	-	-	7.84	-	7.84	-	-	-	7.84	-
<i>Phronima sedentaria</i>	-	-	-	-	-	-	-	-	-	-	-	-	7.84	-	-	-
<i>Phrosina semilunata</i>	-	-	-	-	-	-	-	-	-	-	7.84	-	-	-	-	-
<i>Phtisica marina</i>	-	-	-	-	-	-	-	7.84	-	-	-	-	-	-	-	-
<i>Primno macropa</i>	-	-	-	-	-	-	-	-	-	-	-	-	7.84	-	-	-
<i>Pseudolirius kroyeri</i>	-	-	-	-	-	-	15.69	-	-	15.69	-	-	-	-	-	-
<i>Themisto abyssorum</i>	-	-	-	-	-	-	-	-	-	-	-	7.84	-	-	-	-
Order DECAPODA (zoea)																
Alpheidae	-	-	-	-	-	7.84	-	-	-	-	-	7.84	-	-	-	-
Axiidea	-	-	-	-	-	-	454.90	-	109.80	-	-	-	-	-	47.06	-
Brachyura	219.61	7.84	-	-	101.96	15.69	125.49	62.75	39.22	340.09	23.53	133.33	128.49	188.24	7.84	721.63
Caridea	-	-	-	-	-	-	-	-	-	-	-	-	-	180.39	-	-
Crangonidae	-	-	-	-	-	62.75	-	23.53	47.06	-	7.84	7.84	-	15.69	-	15.69
<i>Diogenes pugilator</i>	7.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Galatheidae	-	-	-	-	-	-	-	-	31.37	-	-	-	-	-	-	-
Hippolytidae	47.06	117.65	54.90	-	31.37	-	-	-	-	-	7.84	-	-	-	-	-
<i>Jaxea nocturna</i>	-	-	-	-	-	-	-	7.84	-	-	-	-	-	7.84	-	-
Paguroidea	78.43	-	-	-	7.84	23.53	-	-	-	-	-	-	15.69	31.37	180.39	-
Palaemonidae	-	-	23.53	-	7.84	-	-	31.37	7.84	-	541.18	7.84	7.84	23.53	-	-
Pandalidae	-	-	-	-	7.84	-	-	62.75	-	-	-	31.37	15.69	-	15.69	-
Penaeidae	-	-	-	-	-	7.84	31.37	-	-	7.84	-	101.96	-	188.24	-	-
Porcellanidae	62.75	7.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processidae	149.02	31.37	-	-	70.59	7.84	149.02	-	7.84	-	-	15.69	15.69	-	-	-
Stenopodidea	-	-	109.80	-	7.84	47.06	-	-	-	-	-	-	-	-	-	-
<i>Upogebia sp.</i>	-	-	-	-	-	-	-	-	-	180.39	-	-	-	-	-	-
Order DECAPODA (megalopa)																
Brachyura	-	-	-	-	-	-	-	-	7.84	7.84	-	7.84	-	7.84	-	-

<i>Phylum</i> CHAETOGNATHA	-	-	-	-	172.55	133.33	705.88	-	980.39	7.84	149.02	933.33	2394.44	1450.98	1082.35	1050.12
<i>Phylum</i> CHORDATA																
<i>Subphylum</i> TUNICATA																
<i>Class</i> APPENDICULARIA	-	-	-	-	-	-	963.40	-	1352.38	-	-	2427.71	39.22	3110.70	-	178.66
<i>Class</i> THALIACEA	-	-	-	-	-	23.53	39.22	-	748.83	-	203.92	778.19	-	282.35	86.27	588.24
<i>Subphylum</i> VERTEBRATA																
Anchovy eggs	39.22	-	23.53	-	211.76	347.09	235.29	-	-	23.53	70.59	693.63	-	-	15.69	-
Fish eggs	54.90	23.53	39.22	-	-	173.54	270.37	15.69	149.02	31.37	-	-	-	-	47.06	7.84
Fish larvae	7.84	-	-	-	-	54.90	-	-	164.71	39.22	15.69	31.37	15.69	47.06	-	54.90

Table S2. PERMANOVA results of univariate analyses carried out on zooplankton abundance, biomass and diversity (in terms of H' index). In vs. off=inshore vs. offshore

Source	df	Abundance		Biomass		Diversity (H')	
		MS	Pseudo-F	MS	Pseudo-F	MS	Pseudo-F
sub-area	2	1.73	4.20*	0.22	0.46 ^{ns}	0.79	1.98 ^{ns}
In vs. off	1	1.7	4.11 ^{ns}	3.39	6.96*	0.64	1.60 ^{ns}
sub-basin*In vs. off	2	0.13	0.31 ^{ns}	0.26	0.53 ^{ns}	0.38	0.96 ^{ns}
Residuals	10	0.41		0.49		0.4	
Total	15						

*= $p < 0.05$; ns=not significant difference

Table S3. PERMANOVA results of multivariate analysis on zooplankton abundance, a) main test, b) pairwise comparisons for factor “sub-area”. NA=Northern Adriatic, CA=Central Adriatic, SA=Southern Adriatic; In vs. off=inshore vs. offshore

a)

Source	df	MS	Pseudo-F
sub-area	2	3053.6	4.07**
Inshore vs. offshore	1	1854.5	2.47*
sub-area*In vs. off	2	1350.8	1.80*
Residuals	9	750.44	
Total	14		

b)

Groups	t
NA vs. CA	1.92**
NA vs. SA	2.72**
CA vs. SA	1.30 ^{ns}

*=p<0.05; **=p<0.01; ns=not significant difference

Table S4. Results of SIMPER analysis examining a) dissimilarity between contiguous pair of sub-area groups across all Inshore vs. offshore groups, and b) dissimilarity between Inshore vs. offshore groups within each sub-area, with a 50% cut-off for low contribution. NA = Northern Adriatic; CA = Central Adriatic; SA =Southern Adriatic.

a)

NA vs. CA		Average dissimilarity = 54.73			
Species	NA	CA	Av.Diss	Contrib%	Cum.%
	Av.Abund	Av.Abund			
<i>Calanus-like</i>	1.58	6.61	1.96	3.59	3.59
<i>Euchaeta sp.</i>	1.39	6.01	1.83	3.34	6.93
<i>Acartia sp.</i>	9.01	7.11	1.55	2.84	9.77
<i>Euterpina acutifrons</i>	5.2	0.75	1.54	2.81	12.58
<i>Evadne spinifera</i>	5.2	2.26	1.47	2.69	15.27
<i>Penilia avirostris</i>	4.9	4.19	1.39	2.54	17.81
<i>Oncaea sp.</i>	4.93	7.17	1.3	2.37	20.18
<i>Calanus helgolandicus</i>	3.28	4.66	1.28	2.34	22.52
Chaetognatha	2.37	4.18	1.22	2.23	24.74
Gasteropoda larvae	5.19	4.97	1.21	2.2	26.95
Thaliacea	0.98	3.72	1.2	2.19	29.13
<i>Meganyctiphanes norvegica</i>	0	3.44	1.13	2.07	31.21
<i>Centropages typicus</i>	6.31	4.74	1.11	2.03	33.24
<i>Corycaeus sp.</i>	1.15	2.72	1.05	1.91	35.15
Ostracoda	0.65	3.18	1.03	1.89	37.04
<i>Oithona sp.</i>	8.64	9.36	1.03	1.89	38.93
<i>Temora longicornis</i>	3.02	1.62	1.02	1.86	40.79
Appendicularia	0.98	3	1.02	1.86	42.65
<i>Creseis acicula</i>	0.99	3.12	1.01	1.84	44.5
Calanoida	10.24	7.36	0.99	1.81	46.31
Anchovy eggs	3.37	2.8	0.97	1.78	48.09
Bivalvia larvae	5.72	7.37	0.96	1.76	49.85
<i>Podon sp.</i>	7.88	5.52	0.95	1.74	51.59
Groups CA vs. SA		Average dissimilarity = 49.79			
Species	CA	SA	Av.Diss	Contrib%	Cum.%
	Av.Abund	Av.Abund			
Bivalvia larvae	7.37	1.66	1.77	3.55	3.55
Gasteropoda larvae	4.97	1.79	1.32	2.65	6.19
Appendicularia	3	4.23	1.21	2.43	8.62
<i>Acartia sp.</i>	7.11	3	1.21	2.43	11.05
<i>Creseis acicula</i>	3.12	4.66	1.12	2.24	13.29
<i>Penilia avirostris</i>	4.19	4.8	1.09	2.19	15.48
<i>Calanus-like</i>	6.61	3.93	1.06	2.12	17.61
<i>Corycaeus sp.</i>	2.72	5.96	1.04	2.09	19.7
<i>Temora stylifera</i>	1.16	3.56	1.02	2.04	21.74
Chaetognatha	4.18	7.25	1	2	23.74
<i>Podon sp.</i>	5.52	5.09	0.96	1.92	25.67
<i>Nannocalanus minor</i>	1.71	3.91	0.94	1.88	27.55
Calycophorae	1.66	3.47	0.93	1.87	29.42
Thaliacea	3.72	4.12	0.93	1.86	31.28
<i>Meganyctiphanes norvegica</i>	3.44	0.54	0.88	1.77	33.06
<i>Microsetella sp.</i>	2.31	2.61	0.87	1.74	34.8
Paguroidea	0	2.87	0.86	1.73	36.53
Ostracoda	3.18	2.61	0.84	1.69	38.22
<i>Candacia spp</i>	0.77	3.19	0.8	1.61	39.83

Calanoida	7.36	9.9	0.79	1.58	41.41
<i>Lucicutia flavicornis</i>	0	2.62	0.79	1.58	42.99
<i>Calanus helgolandicus</i>	4.66	4.63	0.78	1.56	44.55
<i>Clytemmestra scutellata</i>	2.25	1.99	0.77	1.55	46.11
Anchovy eggs	2.8	0.7	0.77	1.54	47.65
<i>Centropages typicus</i>	4.74	4.1	0.72	1.45	49.1
<i>Euchaeta sp.</i>	6.01	6.05	0.71	1.44	50.54

b)

Within NA		Average dissimilarity = 49.59			
	inshore	offshore			
Taxon	Av.Abund	Av.Abund	Av.Diss	Contrib%	Cum.%
Calycophorae	0	6.31	2.43	4.91	4.91
<i>Calanus helgolandicus</i>	0.87	6.5	2.18	4.41	9.31
Chaetognatha	0	5.54	2.12	4.28	13.59
<i>Oncaea sp.</i>	2.9	7.65	1.96	3.95	17.54
<i>Penilia avirostris</i>	2.89	7.58	1.93	3.89	21.43
<i>Acartia sp.</i>	8.03	10.31	1.72	3.48	24.9
<i>Oithona sp.</i>	7.1	10.69	1.72	3.47	28.38
<i>Evadne spinifera</i>	4.83	5.7	1.65	3.33	31.71
<i>Temora longicornis</i>	1.95	4.46	1.56	3.15	34.86
Anchovy eggs	1.72	5.56	1.56	3.15	38.02
Gasteropoda larvae	5.7	4.52	1.42	2.86	40.88
Calanus-like	0	3.69	1.34	2.7	43.58
<i>Pseudevadne tergestina</i>	0	2.99	1.3	2.63	46.21
Bivalvia larvae	4.54	7.3	1.26	2.55	48.75
<i>Temora stylifera</i>	0	3.51	1.25	2.51	51.27
Within CA		Average dissimilarity = 53.73			
	inshore	offshore			
Taxon	Av.Abund	Av.Abund	Av.Diss	Contrib%	Cum.%
<i>Penilia avirostris</i>	7.9	0	2.54	4.72	4.72
Thaliacea	0	5.97	1.89	3.53	8.25
Ostracoda	0	5.37	1.7	3.17	11.41
<i>Calanus helgolandicus</i>	1.6	6.55	1.63	3.04	14.45
<i>Eucaheta sp.</i>	3.17	8.04	1.59	2.95	17.4
Chaetognatha	1.09	5.95	1.57	2.92	20.32
<i>Corycaeus sp.</i>	1.09	5.71	1.5	2.8	23.12
<i>Podon sp.</i>	7.54	3.68	1.45	2.7	25.82
<i>Lestrigonus schizogeneios</i>	0	4.38	1.41	2.63	28.44
<i>Creseis acicula</i>	1.6	4.06	1.24	2.31	30.76
Calanus-like	4.18	7.53	1.14	2.12	32.87
Gasteropoda larvae	5.83	3.21	1.12	2.09	34.96
<i>Gaetanus tenuispinus</i>	3.8	0	1.09	2.03	36.99
Appendicularia	0	3.61	1.08	2.02	39
<i>Evadne spinifera</i>	3.34	2.31	1.04	1.94	40.94
Palaemonidae	1.74	4.24	0.99	1.85	42.79
<i>Isias clavipes</i>	2.94	0	0.91	1.7	44.49
<i>Microsetella sp.</i>	0	2.66	0.9	1.67	46.17
Fish larvae	1.85	3.96	0.85	1.57	47.74
<i>Temora stylifera</i>	2.91	0	0.84	1.55	49.3
<i>Copilia mediterranea</i>	0	2.76	0.83	1.54	50.84
Within SA		Average dissimilarity = 45.48			

Taxon	inshore	offshore	Av.Diss	Contrib%	Cum.%
	Av.Abund	Av.Abund			
Calanoida	9.9	4.96	1.41	3.1	3.1
<i>Meganyctiphanes norvegica</i>	0	4.45	1.22	2.69	5.79
Calanus-like	3.56	7.35	1.2	2.65	8.43
Bivalvia larvae	2.22	4.23	1.16	2.55	10.98
<i>Acartia sp.</i>	4	3.9	1.1	2.43	13.41
Ostracoda	1.63	5.35	1.06	2.33	15.74
Thaliacea	5.5	3.33	0.98	2.15	17.89
Gasteropoda larvae	2.38	3.38	0.97	2.13	20.02
Calycephorae	2.91	5.66	0.96	2.11	22.13
<i>Corycaeus sp.</i>	5.64	3.46	0.94	2.07	24.2
Appendicularia	4.41	5.74	0.94	2.06	26.27
<i>Temora stylifera</i>	3.81	1.41	0.92	2.02	28.29
<i>Microsetella sp.</i>	3.49	3.13	0.89	1.95	30.24
Anchovy eggs	0.94	3.27	0.89	1.95	32.19
<i>Podon sp.</i>	4.92	5.38	0.88	1.93	34.12
<i>Creseis acicula</i>	4.6	4.56	0.88	1.93	36.05
<i>Centropages typicus</i>	4.24	3.45	0.87	1.92	37.97
<i>Lucicutia flavicornis</i>	1.54	2.93	0.85	1.87	39.84
<i>Clytemnestra scutellata</i>	2.65	2.93	0.82	1.8	41.65
Processidae	0	2.81	0.8	1.75	43.4
<i>Penilia avirostris</i>	4.37	5.63	0.72	1.59	44.99
Aetideidae	2.49	0	0.71	1.57	46.56
<i>Copilia mediterranea</i>	0	2.5	0.71	1.56	48.12
Penaeidae	1.75	2.32	0.71	1.55	49.67
<i>Mecynocera clausi</i>	0	2.58	0.69	1.51	51.19

Table S5. Mean values and standard deviations (SD) of temperature (° C), salinity, fluorescence (µg/l) and dissolved oxygen (ml/l), for each sub-area and at inshore vs. offshore stations. NA = Northern Adriatic; CA = Central Adriatic; SA =Southern Adriatic; In vs. off=inshore vs. offshore.

sub-area	in vs. off	Temperature	SD	Salinity	SD	Fluorescence	SD	Oxygen	SD
NA	in	17.93	1.23	35.66	0.78	3.22	1.29	5.37	0.15
NA	off	17.13	1.54	37.41	0.56	1.68	0.43	5.28	0.05
CA	in	20.63	1.73	37.83	0.65	1.19	0.51	4.62	0.31
CA	off	16.71	0.36	38.97	0.01	0.70	0.12	4.79	0.05
SA	in	21.63	0.08	38.20	0.16	0.92	0.27	4.45	0.08
SA	off	16.71	0.36	38.97	0.01	0.70	0.12	4.79	0.05

Table S6. Results of univariate PERMANOVA a) main test and b) pairwise comparisons for the factor 'sub-area' and interaction term 'sub-area x in. vs. off' for pairs of levels of factor "inshore vs. offshore" run on the Euclidean resemblance matrix of untransformed temperature, salinity, fluorescence, oxygen. NA = Northern Adriatic; CA = Central Adriatic; SA =Southern Adriatic; In vs. off=inshore vs. offshore.

a) main test													
Source	df	temperature			salinity			fluorescence			oxygen		
		MS	Pseudo-F	P(perm)	MS	Pseudo-F	P(perm)	MS	Pseudo-F	P(perm)	MS	Pseudo-F	P(perm)
sub-area	2	4.85	3.94	0.047	9.25	38.33	0.0001	5.94	14.35	0.0006	1.04	53.12	0.0001
in vs. off	1	50.78	41.28	0.0001	7.33	30.38	0.0001	2.78	6.7	0.02	0.1	5.23	0.03
sub-area*in vs. off	2	7.99	6.50	0.01	0.41	1.68	0.21	0.85	2.06	0.16	0.08	3.99	0.04
Res	15	1.23			0.24			0.41			0.02		
Total	20												

b) pairwise comparisons												
Within level 'NA' of factor 'sub-area'												
temperature			salinity			fluorescence			oxygen			
Groups	t	P(perm)	Groups	t	P(perm)	Groups	t	P(perm)	Groups	t	P(perm)	
in vs. off	0.82	0.44	in vs. off	3.65	0.012	in vs. off	2.27	0.05	in vs. off	1.05	0.33	
Within level 'CA' of factor 'sub-area'												
in vs. off	4.54	0.007	in vs. off	3.65	0.015	in vs. off	1.91	0.06	in vs. off	1.11	0.32	
Within level 'SA' of factor 'sub-area'												
in vs. off	18.287	0.0002	in vs. off	10.99	0.0005	in vs. off	1.48	0.21	in vs. off	6.65	0.003	
term "sub-area"												
temperature			salinity			fluorescence			oxygen			
NA vs. CA	1.71	0.11	NA vs. CA	6.29	0.0001	NA vs. CA	3.88	0.003	NA vs. CA	7.4	0.0002	
CA vs. SA	1.00	0.34	CA vs. SA	1.03	0.32	CA vs. SA	0.86	0.41	CA vs. SA	0.98	0.35	

Table S7. Results of PERMANOVA a) main test and b) pairwise comparisons for sub-area factor and the interaction term for pairs of levels of factor “inshore vs. offshore” run on the Euclidean resemblance matrix of untransformed $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$ values and for $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$, separately. NA = Northern Adriatic; CA = Central Adriatic; SA =Southern Adriatic; In vs. off=inshore vs. offshore.

a)

Source	df	$\delta^{13}\text{C}-\delta^{15}\text{N}$		$\delta^{15}\text{N}$		$\delta^{13}\text{C}$	
		MS	Pseudo-F	MS	Pseudo-F	MS	Pseudo-F
sub-area	2	8.26	3.01*	6.26	3.66*	2.00	1.93 ^{ns}
Inshore vs. offshore	1	28.32	10.32***	14.62	8.55**	13.71	13.23**
sub-area*In vs. off	2	3.81	1.39 ^{ns}	0.49	0.29 ^{ns}	3.32	3.21*
Residuals	120	2.75		1.71		1.04	
Total	125						

b)

Groups	$\delta^{13}\text{C}-\delta^{15}\text{N}$	$\delta^{15}\text{N}$	$\delta^{13}\text{C}$
	t	t	t
on factor "sub-area"			
NA vs. CA	1.57 ^{ns}	1.85 ^{ns}	1.18 ^{ns}
CA vs. SA	1.49 ^{ns}	0.63 ^{ns}	2.56*
Within level 'NA' of factor 'sub-area'			
In vs. off	1.66 ^{ns}	1.89 ^{ns}	1.37 ^{ns}
Within level 'CA' of factor 'sub-area'			
In vs. off	3.17***	2.06*	4.16***
Within level 'SA' of factor 'sub-area'			
In vs. off	1.02 ^{ns}	1.08 ^{ns}	0.52 ^{ns}

*= $p < 0.05$; **= $p < 0.01$; ***= $p < 0.001$; ns=not significant difference

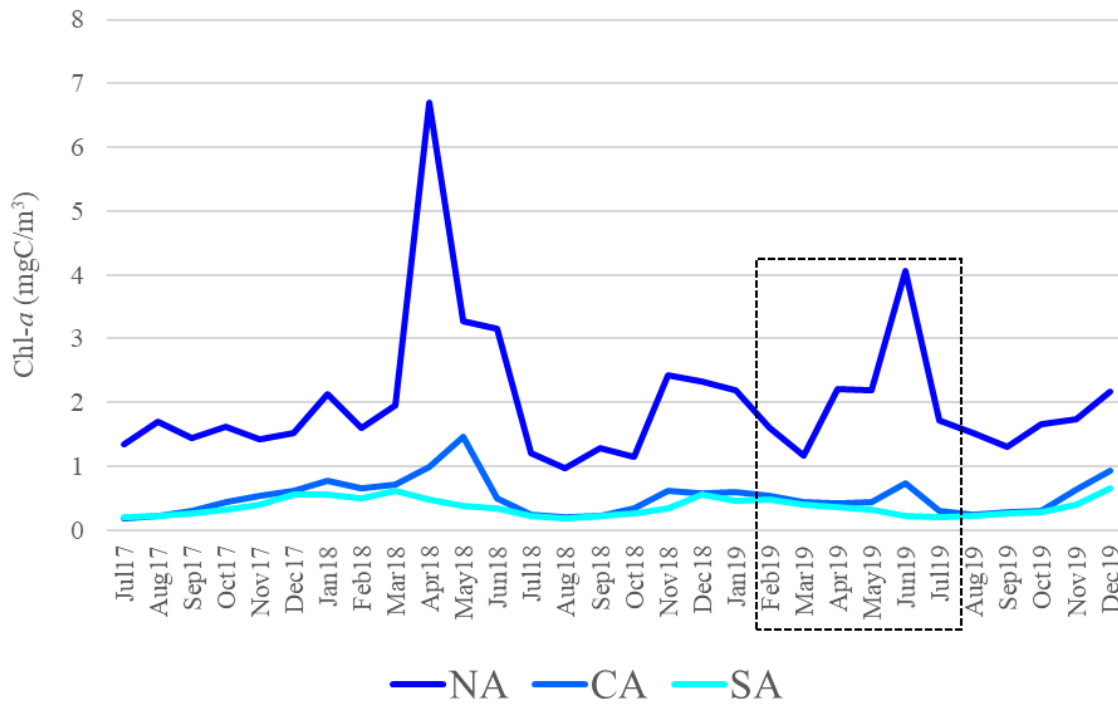


Figure S1. Monthly time-series area-averaged map of satellite-derived (Sensor MODIS Aqua from <https://giovanni.gsfc.nasa.gov/giovanni>) Chlorophyll-*a* concentration (mgC/m³) from July 2017 to December 2019 for the three sub-areas considered in this study. The dashed rectangle encompassed values of Chl-*a* before (from 4 months) and during the survey (June-July 2019).