Supplementary material

"Assessing environmental control on temporal and spatial patterns of larval fish assemblages in a marine protected area."

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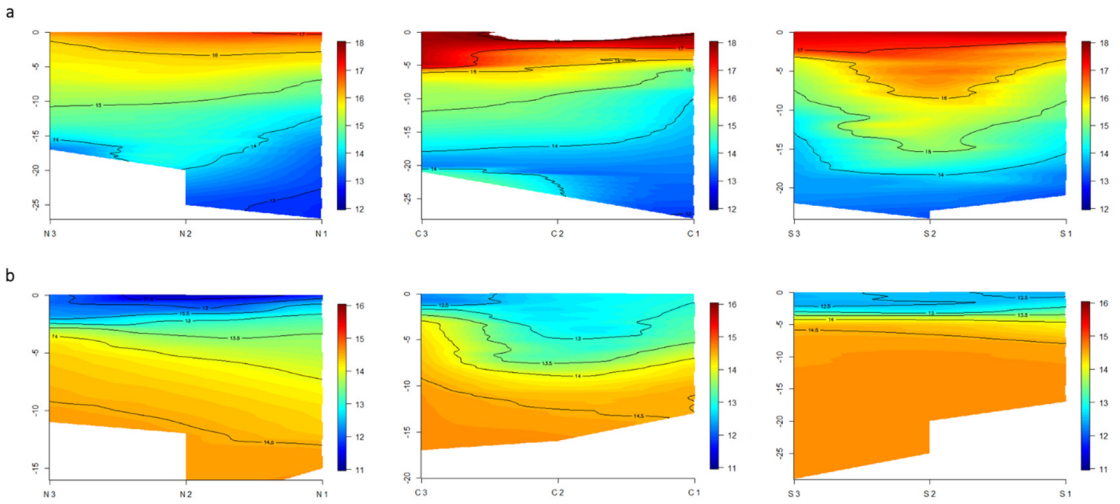
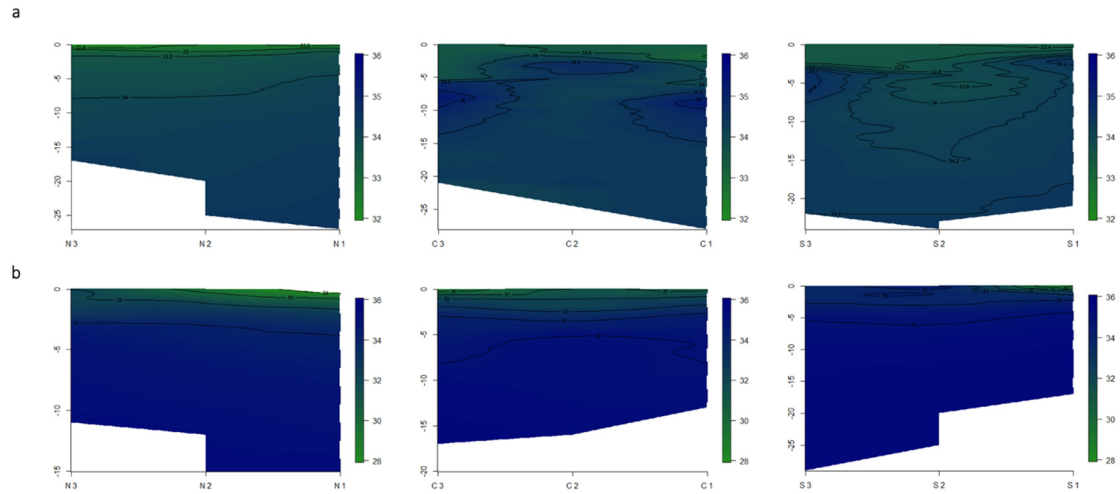
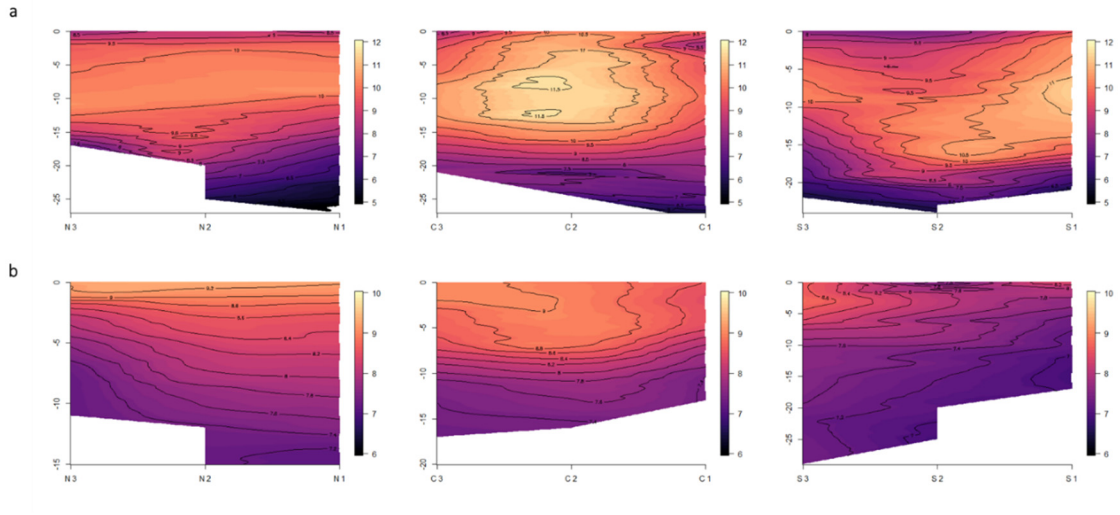


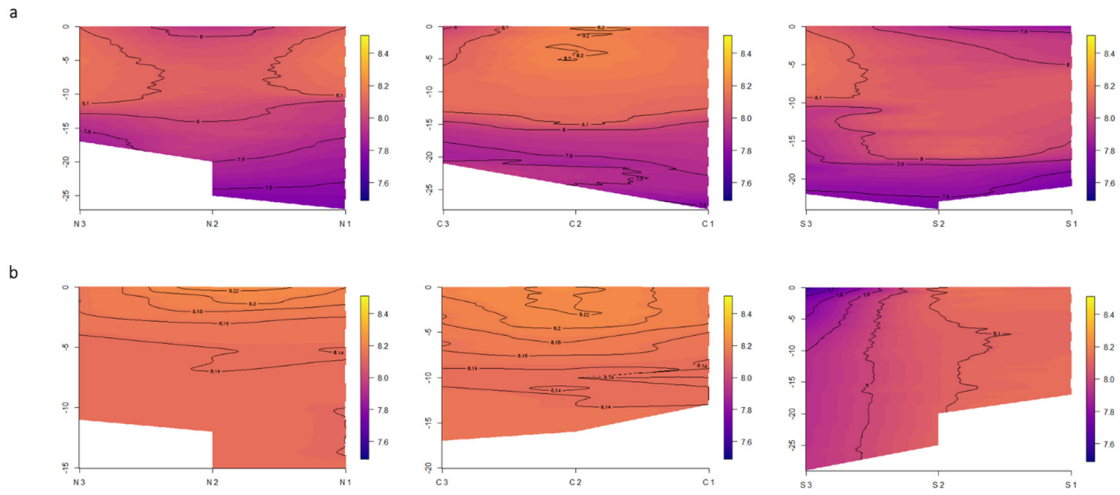
Water column temperature (°C) profile along the PNLN during (a) Summer 2018 and (b) Winter 2019.



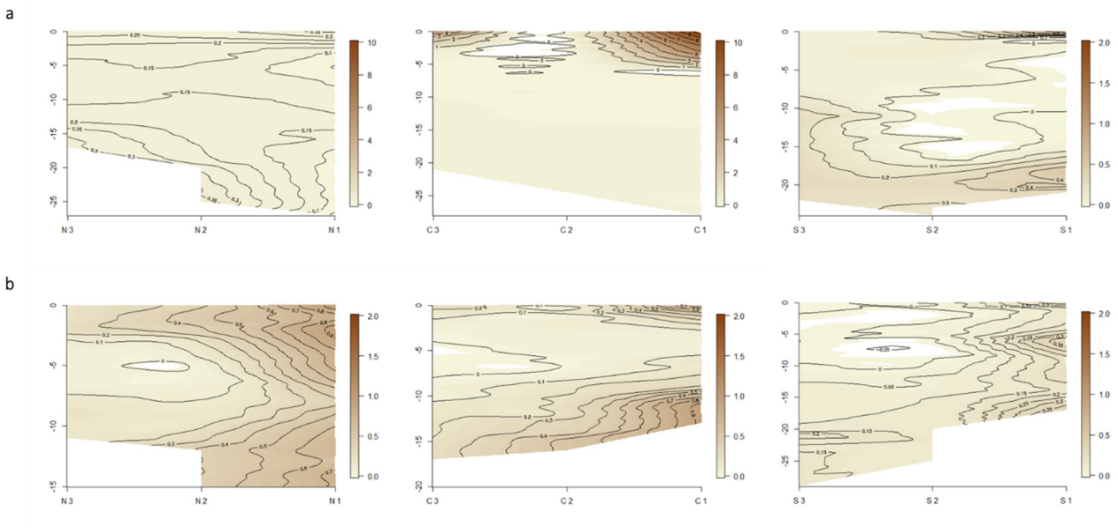
Water column salinity profile along the PNLN during (a) Summer 2018 and (b) Winter 2019.



Water column dissolved oxygen (mg L^{-1}) profile along the PNLN during (a) Summer 2018 and (b) Winter 2019.



Water column pH levels profile along the PNLN during (a) Summer 2018 and (b) Winter 2019.



Water column Turbidity (NTU) profile along the PNLN during (a) Summer 2018 and (b) Winter 2019.

Figure S1 Water column parameters (Temperature, Salinity, pH, Dissolved oxygen concentration and Turbidity), cubic interpolated, along the PNLN, during Summer 2018 and Winter 2019 samplings.

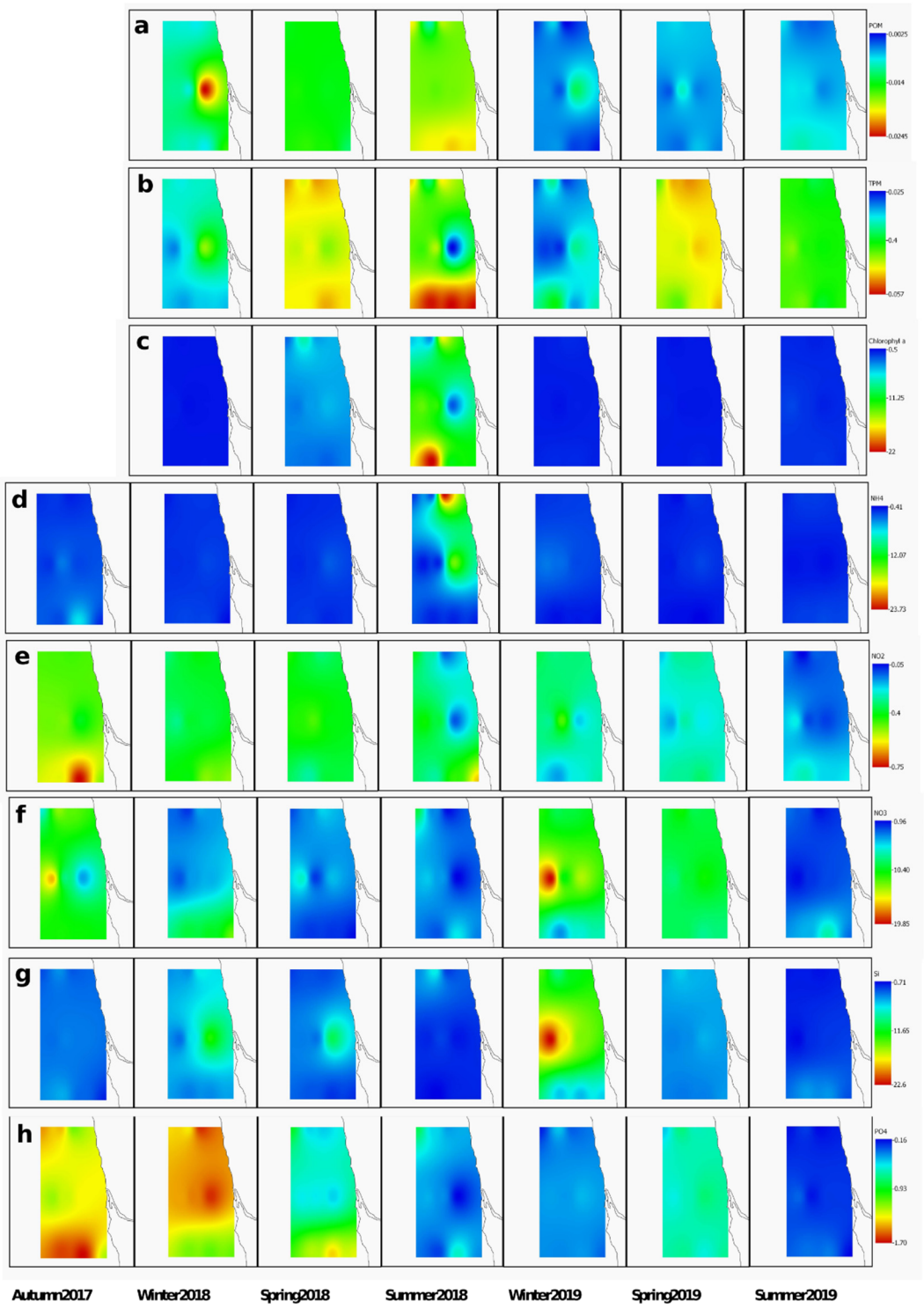


Figure S2 Spatial-temporal variation of (a) POM (mg L-1); (b) TPM (mg L-1); (c) chlorophyl a (mg m-3); (d) NH4 (μM L-1); (e) NO2 (μM L-1); (f) NO3(μM L-1); (g) Si (μM L-1); (h) PO4 (μM L-1) along the PNLN MPA between Autumn 2017 and Summer 2019.

	Sampling times			Transect			Distance	
Source of variation	df	F	P	df	F	P	F	P
Temperature (°C)	6	128.93	<0.001	2	3.39	<0.05	1.11	0.34
Salinity	6	20.64	<0.001	2	4.0	<0.05	0.56	0.57
Oxygen saturation (%)	6	24.62	<0.001	2	2.09	0.14	0.80	0.46
Dissolved oxygen (mg/L)	6	21.04	<0.001	2	2.13	0.13	0.51	0.61
pH	6	65.42	<0.001	2	3.89	<0.05	0.27	.076
Turbidity (NTU)	6	11.03	<0.001	2	0.11	0.87	12.37	<0.001
TPM (mg L^{-1})	6	22.84	<0.001	2	2.41	0.10	0.06	0.94
POM (mg L^{-1})	6	21.19	<0.001	2	1.52	0.23	0.61	0.55
Chlorophyll a (µg/L)	6	18.27	<0.001	2	0.28	0.76	0.28	0.76
Zooplankton	2	3.92	<0.05	-	-	-	-	-
NO_3 (µM L^{-1})	6	15.07	<0.001	2	0.17	0.85	0.35	0.71
NO_2 (µM L^{-1})	6	15.41	<0.001	2	4.03	<0.05	1.21	0.31
Nh_4 (µM L^{-1})	6	1.73	0.14	2	0.53	0.59	2.02	0.15
PO_4 (µM L^{-1})	6	105.57	<0.001	2	2.67	0.08	0.45	0.64
Si (µM L^{-1})	6	28.22	<0.001	2	11.17	<0.001	0.05	0.95

Table S1 Two-way ANOVA analysis for the different environmental factors studies using fixed factors Sampling time – Transect and Sampling time – Distance.