

Supplementary Materials

Environmental Characteristics Associated with the Presence of the Pelagic Stingray (*Pteroplatytrygon violacea*) in the Pacific High Sea

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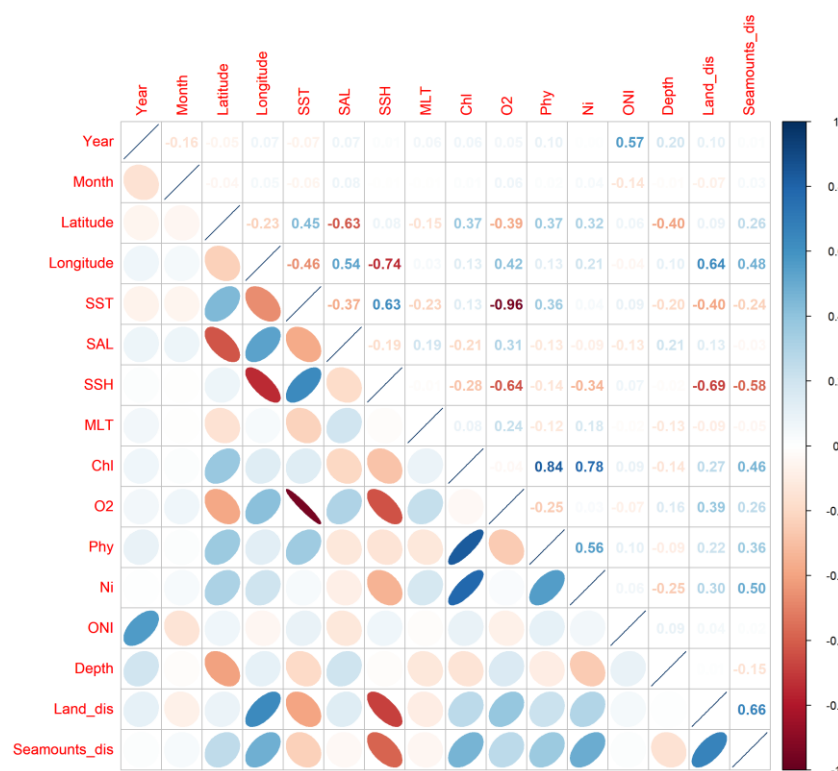


Figure S1. Pearson correlation coefficient between variables.

Table S1. Collinearity between variables by calculating Variance Inflation Factor (VIF).

Variables	VIF	VIF with selected variables
Year	1.702	1.607
Month	1.084	1.067
Latitude	2.543	2.531
Longitude	4.505	2.824
SST	20.241	1.941
SAL	3.031	2.484
SSH	5.451	-
MLT	1.404	1.257
Chl	8.708	1.536
O2	15.198	-
Phy	6.511	-
Ni	3.519	-
ONI	1.596	1.567
Depth	1.384	1.332
Land_dis	2.773	2.687
Seamounts_dis	2.456	2.397

Table S2. Model selected by stepwise analysis.

Variables included in the model	AIC
~s(Longitude, Latitude)	12504.19
~s(Longitude, Latitude)+s(Month)	12365.37
~s(Longitude, Latitude)+s(Month)+s(SAL)	12249.87
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)	12132.00
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)+s(Chl)	12052.35
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)+s(Chl)+s(SST)	12010.95
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)+s(Chl)+s(SST)+s(Year)	11986.89
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)+s(Chl)+s(SST)+s(Year)+s(MLT)	11963.47
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)+s(Chl)+s(SST)+s(Year)+s(MLT)+s(Land_dis)	11934.59
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)+s(Chl)+s(SST)+s(Year)+s(MLT)+s(Land_dis)+s(Seamounts_dis)	11916.50
~s(Longitude, Latitude)+s(Month)+s(SAL)+s(Nino)+s(Chl)+s(SST)+s(Year)+s(MLT)+s(Land_dis)+s(Seamounts_dis)+s(Depth)	11909.50