

Table S 1: Result of ANCOVA models between thickness of sound scattering layers (SSLs) and environmental parameters (temperature, density, dissolved oxygen, chlorophyll-a, diel period and bottom depth) in the inshore area (G1) and the offshore (G2). [G1: Multiple R-squared: 0.869, Adjusted R-squared: 0.8515, p -value: 0.000]; and [G2: Multiple R-squared: 0.8557, Adjusted R-squared: 0.7956, p -value: 0.000]. Significant p -value in bold.

Group	Coefficient Estimate		Std. Error		p -value	
	Inshore	Offshore	Inshore	Offshore	Inshore	Offshore
Intercept	-11.865	56030	4.161	17610	0.012	0.007
Bottom depth	0.916	0.21	0.148	0.06	0.001	0.005
Diel period (Night)	11.492	27.35	3.735	8.69	0.007	0.008
Temperature	-	-383.80	-	119.60	-	0.007
Density	-	-1898	-	598.50	-	0.008
Oxygen	-	-1.76	-	0.55	-	0.007

Table S 2: Result ANCOVA models between depth of sound scattering layers (SSLs) and environmental parameters in the inshore area (G1) and the offshore area (G2). [G1: Multiple R-squared: 0.8056, Adjusted R-squared: 0.7797, p-value: 0.000]; and [G2: Multiple R-squared: 0.8557, Adjusted R-squared: 0.7956, p-value: 0,000]. Significant p-value in bold.

Group	Coefficient Estimate		Std. Error		<i>p</i> -value	
	Inshore	Offshore	Inshore	Offshore	Inshore	Offshore
Intercept	-4.223	56040	5.603	17610	0.4627	0.007
Bottom depth	0.954	0.21	0.200	0.060	0.001	0.005
Diel period (Night)	12.864	27.35	5.030	8.690	0.021	0.008
Temperature	-	-383.80	-	119.60	-	0.007
Density	-	-1898	-	598.50	-	0.008
Oxygen	-	-1.76	-	0.550	-	0.007

Table S 3: Result of ANCOVA models between sound scattering layers (SSLs) density ($\log(s_A)$) and environmental parameters in the inshore area (G1) and the offshore area (G2). [G1: Multiple R-squared: 0.398, Adjusted R-squared: 0.3178, p -value: 0.022]; and [G2: Multiple R-squared: 0.3448, Adjusted R-squared: -0.01258, p -value: 0.490]. Significant p -value in bold.

Group	Coefficient Estimate		Std. Error		p -value	
	Inshore	Offshore	Inshore	Offshore	Inshore	Offshore
Intercept	-9.007	-489.2	5.784	405.7	0.140	0.253
Bottom depth	0.028	-0.001	0.009	0.011	0.008	0.357
Temperature	0.578	3.207	0.350	2.78	0.119	0.273
Diel period (Night)	-	-0.126	-	0.202	-	0.546
Density	-	1.673	-	13.78	-	0.250
Oxygen	-	0.016	-	0.010	-	0.166
Chlorophyll a	-	0.679	-	1.22		0.590