

Infaunal invertebrate community relationships to water column and sediment abiotic conditions

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SUPPLEMENTAL INFORMATION

Table 1. Tukey's test results for GLMs looking at the spatial and temporal variation in species richness, total abundance, and bivalve abundance of infauna at sites in both the Bay of Fundy and Southern Gulf of St. Lawrence regions (regions analyzed separately) (n=215 for Bay of Fundy, 221 for Gulf of St. Lawrence; volume = 160.85 cm³). Site and date are fixed factors. * Indicates significance below the chosen critical 0.05 alpha level.

Region	Dependent Variable	Factor	Comparison	Estimate	Std. Error	Z value	p-value
Bay	Bivalve Abundance	Date	2020.LateJuly - 2020.MidAugust	0.814	0.812	1.003	0.995
			2020.LateJuly - 2020.EarlySept	-2.807	0.714	-3.933	<0.01*
			2020.LateJuly - 2020.MidSept	0.787	0.769	1.023	0.994
			2020.LateJuly - 2020.LateSept	-0.601	0.601	-1.000	0.995
			2020.LateJuly - 2020.EarlyOct	-1.123	0.757	-1.484	0.914
			2020.MidAugust - 2020.EarlySept	-1.993	0.411	-4.852	<0.01*
			2020.MidAugust - 2020.MidSept	-0.027	0.417	-0.066	1.000
			2020.MidAugust - 2020.EarlyOct	-0.309	0.394	-0.785	0.999
			2020.EarlySept - 2020.MidSept	-2.021	0.318	-6.356	<0.01*
			2020.EarlySept - 2020.EarlyOct	1.684	0.286	5.881	<0.01*
			2020.MidSept - 2020.EarlyOct	-0.336	0.338	-0.995	0.995
			2021.LateJuly - 2020.LateJuly	0.626	0.878	0.713	1.000
			2021.EarlySept - 2020.EarlySept	-2.937	0.448	-6.550	<0.01*
			2021.EarlyOct - 2020.EarlyOct	-1.435	0.498	-2.884	0.115

Gulf	Species Richness	Site	2021.LateJuly - 2021.EarlyAugust	0.573	0.621	0.924	0.997
			2021.LateJuly - 2021.LateAugust	-0.092	0.539	-0.170	1.000
			2021.LateJuly - 2021.EarlySept	0.756	0.621	1.217	0.977
			2021.LateJuly - 2021.LateSept	-0.601	0.601	-1.000	0.995
			2021.LateJuly - 2021.EarlyOct	0.938	0.647	1.450	0.926
			2021.EarlyAugust - 2021.LateAugust	0.665	0.488	1.363	0.950
			2021.EarlyAugust - 2021.EarlySept	-0.182	0.577	-0.316	1.000
			2021.EarlyAugust - 2021.LateSept	-0.028	0.556	-0.051	1.000
			2021.LateAugust - 2021.EarlySept	0.847	0.488	1.736	0.796
			2021.LateAugust - 2021.LateSept	-0.693	0.463	-1.497	0.910
			2021.LateAugust - 2021.EarlyOct	1.030	0.521	1.976	0.637
			2021.EarlySept - 2021.LateSept	0.154	0.556	0.277	1.000
			2021.EarlySept - 2021.EarlyOct	0.182	0.606	0.301	1.000
			2021.LateSept - 2021.EarlyOct	0.336	0.586	0.575	1.000
			CAF - BRIDG	0.512	0.185	2.771	0.056
			CAL - BRIDG	-0.143	0.207	-0.694	0.981
			KELLY - BRIDG	-0.118	0.205	-0.573	0.992
			LN - BRIDG	0.211	0.202	1.049	0.893
			RYAN - BRIDG	0.563	0.405	1.390	0.716
			CAL - CAF	-0.655	0.167	-3.927	0.001
			KELLY - CAF	-0.629	0.165	-3.817	0.002
			LN - CAF	-0.300	0.171	-1.757	0.472
			RYAN - CAF	0.052	0.391	0.132	1.000
			KELLY - CAL	0.026	0.189	0.137	1.000
			LN - CAL	0.355	0.194	1.824	0.429
			RYAN - CAL	0.707	0.402	1.757	0.473
			LN - KELLY	0.329	0.193	1.706	0.506
			RYAN - KELLY	0.681	0.401	1.696	0.513
			RYAN - LN	0.352	0.399	0.881	0.947

Gulf	Species Richness	Date					
		2021.LateMay - 2021.EarlyJune	-1.768	0.380	-4.648	< 0.001*	
		2021.LateMay - 2021.LateJune	-1.571	0.376	-4.175	< 0.001*	
		2021.LateMay - 2021.MidJune	1.147	0.387	2.960	0.058	
		2021.LateMay - 2021.LateJuly	-1.047	0.390	-2.685	0.119	
		2021.LateMay - 2021.EarlyAugust	-0.997	0.391	-2.547	0.167	
		2021.LateMay - 2021.LateAugust	-0.701	0.403	-1.740	0.646	
		2021.EarlyJune - 2021.MidJune	-0.621	0.211	-2.937	0.061	
		2021.EarlyJune - 2021.LateJune	-0.197	0.190	-1.036	0.967	
		2021.EarlyJune - 2021.MidJuly	-0.938	0.229	-4.094	0.001*	
		2021.EarlyJune - 2021.LateJuly	-0.721	0.216	-3.341	0.017*	
		2021.EarlyJune - 2021.EarlyAugust	0.771	0.219	3.525	0.01*	
		2021.EarlyJune - 2021.LateAugust	-1.067	0.238	-4.483	< 0.001*	
		2021.MidJune - 2021.LateJune	-0.424	0.192	-2.208	0.332	
		2021.MidJune - 2021.MidJuly	0.317	0.230	1.376	0.861	
		2021.MidJune - 2021.LateJuly	0.100	0.217	0.460	1.000	
		2021.MidJune - 2021.EarlyAugust	0.150	0.220	0.681	0.997	
		2021.MidJune - 2021.LateAugust	0.446	0.239	1.864	0.560	
		2021.LateJune - 2021.LateJuly	0.524	0.196	2.671	0.124	
		2021.LateJune - 2021.EarlyAugust	0.574	0.199	2.879	0.072	
		2021.LateJune - 2021.LateAugust	0.870	0.220	3.948	0.002*	
		2021.MidJuly - 2021.LateMay	0.830	0.397	2.088	0.407	
		2021.MidJuly - 2021.LateJune	-0.741	0.211	-3.517	0.01*	
		2021.MidJuly - 2021.LateJuly	-0.217	0.234	-0.928	0.982	
		2021.MidJuly - 2021.EarlyAugust	-0.167	0.237	-0.706	0.997	

Gulf	Total Abundance	Site	2021.MidJuly - 2021.LateAugust	0.129	0.255	0.508	1.000
			2021.LateJuly - 2021.LateAugust	0.346	0.243	1.427	0.836
			2021.LateJuly - 2021.EarlyAugust	0.050	0.224	0.224	1.000
			2021.LateAugust - 2021.EarlyAugust	-0.296	0.245	-1.208	0.925
			CAF - BRIDG	1.263	0.088	14.428	< 0.001*
			CAL - BRIDG	-0.380	0.114	-3.338	0.010*
			KELLY - BRIDG	-0.008	0.104	-0.074	1.000
			LN - BRIDG	0.255	0.103	2.463	0.127
			RYAN - BRIDG	1.214	0.136	8.943	< 0.001*
			CAL - CAF	-1.642	0.089	-18.497	< 0.001*
			KELLY - CAF	-1.270	0.076	-16.643	< 0.001*
			LN - CAF	-1.008	0.079	-12.833	< 0.001*
			RYAN - CAF	-0.048	0.118	-0.409	0.998
			KELLY - CAL	0.372	0.105	3.528	0.005*
			LN - CAL	0.635	0.107	5.931	< 0.001*
			RYAN - CAL	1.594	0.138	11.490	< 0.001*
			LN - KELLY	0.263	0.100	2.710	0.069
			RYAN - KELLY	1.222	0.131	9.320	< 0.001*
			RYAN - LN	0.959	0.130	7.361	< 0.001*
Gulf	Total Abundance	Date	2021.LateMay - 2021.EarlyJune	-2.420	0.238	-10.157	< 0.001*
			2021.LateMay - 2021.MidJune	1.807	0.242	7.481	< 0.001*
			2021.LateMay - 2021.LateJune	-2.437	0.236	-10.318	< 0.001*
			2021.LateMay - 2021.MidJuly	0.746	0.261	2.852	0.073
			2021.LateMay - 2021.LateJuly	-2.097	0.239	-8.784	< 0.001*
			2021.LateMay - 2021.EarlyAugust	-1.646	0.243	-6.765	< 0.001*
			2021.LateMay - 2021.LateAugust	-2.073	0.239	-8.676	< 0.001*
			2021.EarlyJune - 2021.MidJune	-0.613	0.099	-6.173	< 0.001*
			2021.EarlyJune - 2021.LateJune	0.016	0.085	0.191	1.000
			2021.EarlyJune - 2021.MidJuly	-1.675	0.141	-11.876	< 0.001*
			2021.EarlyJune - 2021.LateJuly	-0.324	0.092	-3.514	0.009*
			2021.EarlyJune - 2021.EarlyAugust	0.774	0.104	7.465	< 0.001*

Gulf	Bivalve Abundance	Site	2021.EarlyJune - 2021.LateAugust	-0.348	0.093	-3.755	0.004*
			2021.MidJune - 2021.LateJune	-0.630	0.091	-6.949	< 0.001*
			2021.MidJune - 2021.MidJuly	1.061	0.144	7.360	< 0.001*
			2021.MidJune - 2021.LateJuly	-0.290	0.097	-2.988	0.049*
			2021.MidJune - 2021.EarlyAugust	0.161	0.108	1.488	0.796
			2021.MidJune - 2021.LateAugust	-0.265	0.097	-2.724	0.103
			2021.LateJune - 2021.MidJuly	-1.691	0.135	-12.542	<0.001*
			2021.LateJune - 2021.LateJuly	0.340	0.082	4.130	< 0.001*
			2021.LateJune - 2021.EarlyAugust	0.790	0.100	8.310	< 0.001*
			2021.LateJune - 2021.LateAugust	0.364	0.083	4.392	< 0.001*
			2021.MidJuly - 2021.LateJuly	-1.351	0.139	-9.708	< 0.001*
			2021.MidJuly - 2021.EarlyAugust	-0.901	0.147	-6.124	< 0.001*
			2021.MidJuly - 2021.LateAugust	-1.327	0.140	-9.510	< 0.001*
			2021.LateJuly - 2021.LateAugust	0.024	0.090	0.269	1.000
			2021.LateJuly - 2021.EarlyAugust	0.450	0.101	4.451	< 0.001*
			2021.EarlyAugust - 2021.LateAugust	0.426	0.102	4.192	< 0.001*
			CAF - BRIDG	1.367	0.391	3.494	0.005*
			CAL - BRIDG	0.233	0.445	0.524	0.994
			KELLY - BRIDG	-0.539	0.524	-1.028	0.885
			LN - BRIDG	0.884	0.418	2.113	0.232
			RYAN - BRIDG	-13.902	858.6 94	-0.016	1.000
			CAL - CAF	-1.133	0.298	-3.799	0.001*
			KELLY - CAF	-1.905	0.406	-4.688	< 0.001*
			LN - CAF	-0.483	0.279	-1.729	0.453
			RYAN - CAF	-15.269	858.6 94	-0.018	1.000
			KELLY - CAL	-0.772	0.458	-1.685	0.481
			LN - CAL	0.651	0.351	1.855	0.372
			RYAN - CAL	-14.136	858.6 94	-0.016	1.000

Gulf	Bivalve Abundance	Date	LN - KELLY	1.423	0.446	3.189	0.013*
			RYAN - KELLY	-13.364	858.6 94	-0.016	1.000
			RYAN - LN	-14.786	858.6 94	-0.017	1.000
			2021.LateMay - 2021.EarlyJune	-0.198	0.465	-0.426	1.000
			2021.LateMay - 2021.MidJune	0.005	0.452	0.010	1.000
			2021.LateMay - 2021.LateJune	-0.448	0.420	-1.067	0.962
			2021.LateMay - 2021.MidJuly	-0.363	0.483	-0.752	0.995
			2021.LateMay - 2021.LateJuly	0.468	0.494	0.948	0.980
			2021.LateMay - 2021.EarlyAugust	-0.043	0.447	-0.096	1.000
			2021.LateMay - 2021.LateAugust	1.056	0.577	1.830	0.590
			2021.EarlyJune - 2021.MidJune	-0.194	0.412	-0.469	1.000
			2021.EarlyJune - 2021.LateJune	0.249	0.377	0.662	0.998
			2021.EarlyJune - 2021.MidJuly	-0.561	0.446	-1.258	0.910
			2021.EarlyJune - 2021.LateJuly	-0.666	0.458	-1.454	0.826
			2021.EarlyJune - 2021.EarlyAugust	0.155	0.407	0.382	1.000
			2021.EarlyJune - 2021.LateAugust	-1.254	0.547	-2.294	0.288
			2021.MidJune - 2021.LateJune	-0.443	0.339	-1.305	0.893
			2021.MidJune - 2021.MidJuly	0.367	0.414	0.887	0.987
			2021.MidJune - 2021.LateJuly	0.473	0.427	1.106	0.954
			2021.MidJune - 2021.EarlyAugust	-0.038	0.372	-0.102	1.000
			2021.MidJune - 2021.LateAugust	1.061	0.521	2.035	0.448
			2021.LateJune - 2021.MidJuly	-0.810	0.379	-2.139	0.380
			2021.LateJune - 2021.LateJuly	0.916	0.393	2.329	0.270
			2021.LateJune - 2021.EarlyAugust	0.405	0.332	1.220	0.923

2021.LateJune - 2021.LateAugust	1.503	0.493	3.047	0.046 *
2021.MidJuly - 2021.LateJuly	0.105	0.459	0.229	1.000
2021.MidJuly - 2021.EarlyAugust	-0.405	0.408	-0.993	0.974
2021.MidJuly - 2021.LateAugust	0.693	0.548	1.266	0.908
2021.LateJuly - 2021.LateAugust	0.588	0.558	1.054	0.964
2021.LateJuly - 2021.EarlyAugust	-0.511	0.422	-1.212	0.926
2021.EarlyAugust - 2021.LateAugust	-1.099	0.516	-2.127	0.388

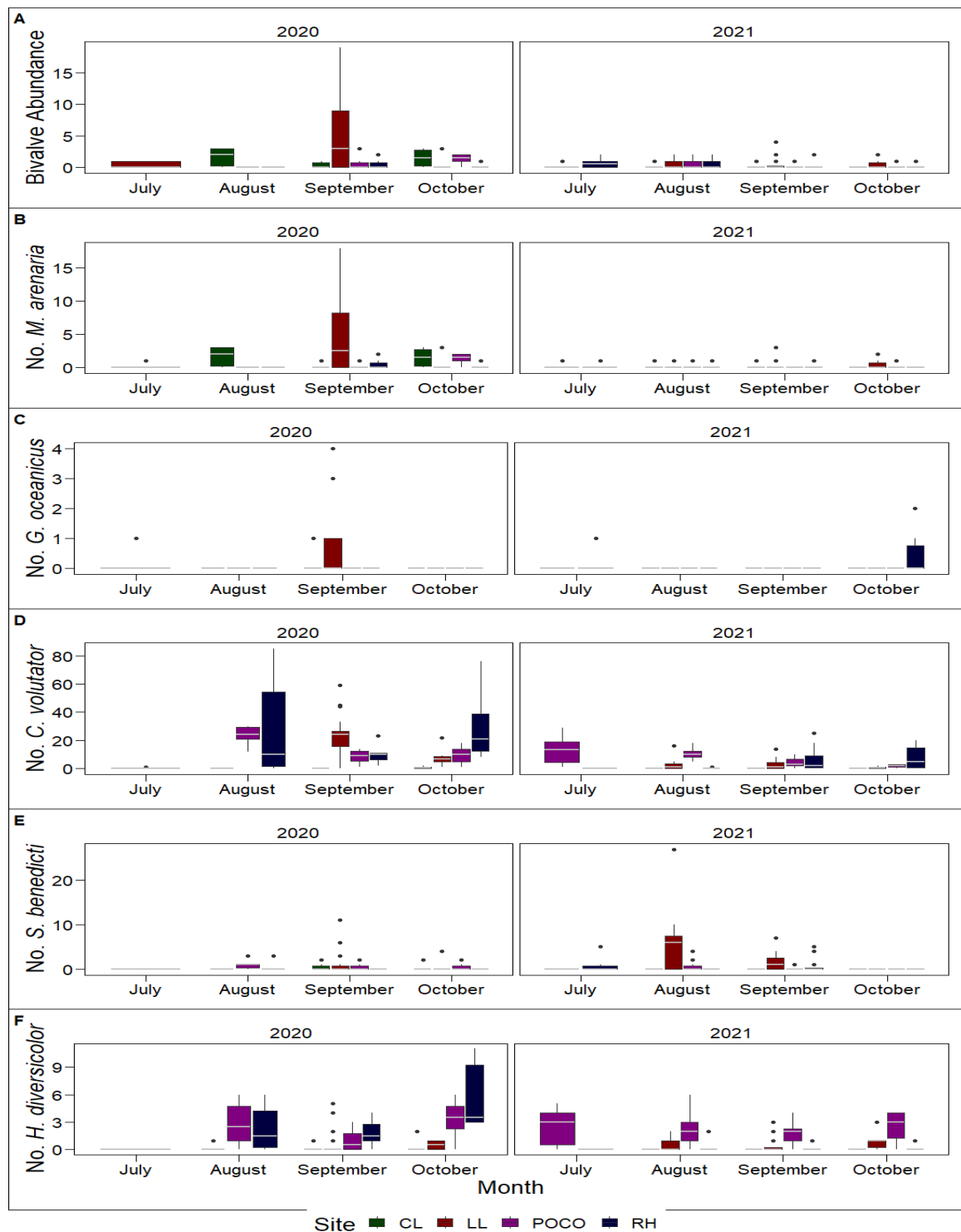


Figure 1. Boxplots of total bivalve abundance and most abundant individual infaunal species abundances ($n=215$ for Bay of Fundy; volume = 160.85 cm^3) at sites from the Bay of Fundy in 2020 and 2021 (data shown at the month level for visual clarity, with 1-2 sampling dates per month).

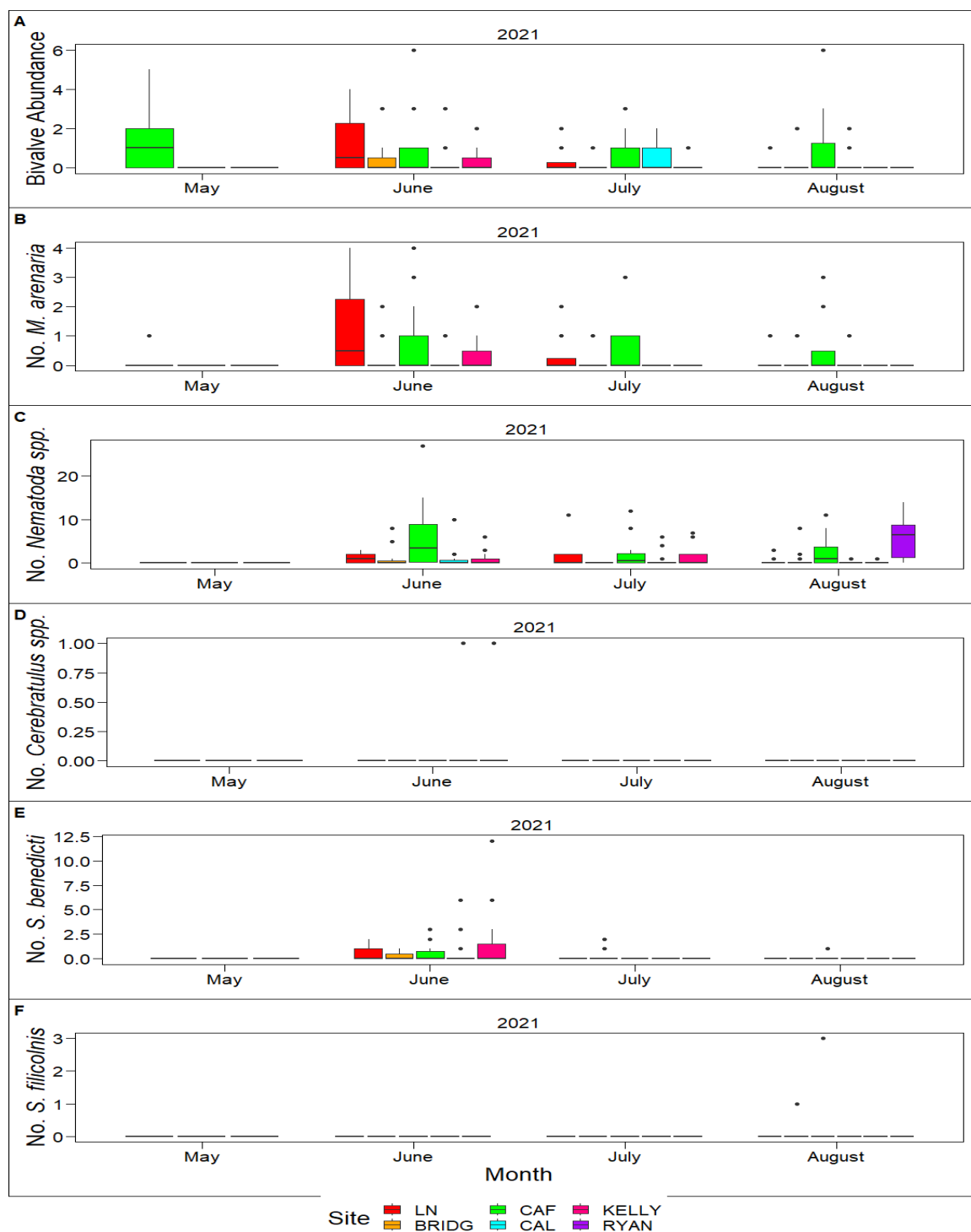


Figure 2. Boxplots of total bivalve abundance and most abundant individual infaunal species abundances ($n=221$ for Southern Gulf of St. Lawrence; volume = 160.85 cm^3) at sites from the Southern Gulf of St. Lawrence in 2021 (data shown at the month level for visual clarity, with 1-2 sampling dates per month).

Table 2: BIO-ENV Analysis results determining which infaunal invertebrate species best differentiate multivariate similarities among samples collected at the study sites within the Bay of Fundy and Southern Gulf of St. Lawrence in 2021 (n=128 for Bay of Fundy, 185 for Gulf of St. Lawrence; volume = 160.85 cm³). For the Bay of Fundy sites, there were 5 sampling dates in 2020 and 6 sampling dates in 2021. For the Southern Gulf of St. Lawrence sites, there were 8 sampling dates in 2021.

Best Results for each number of variables

Bay of Fundy		
No. Vars	Corr	Species
1	0.174	<i>Corophium volutator</i>
2	0.218	<i>Tubificoides benedii</i> , <i>Corophium volutator</i>
3	0.249	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Corophium volutator</i>
4	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Corophium volutator</i>
5	0.260	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Insecta</i> larvae, <i>Corophium volutator</i>
Gulf of St. Lawrence		
No. Vars	Corr	Species
1	0.196	<i>Hediste diversicolor</i>
2	0.196	<i>Hediste diversicolor</i> , <i>Tubificoides benedii</i>
3	0.196	<i>Hediste diversicolor</i> , <i>Tubificoides benedii</i> , <i>Gammarus oceanicus</i>
4	0.196	<i>Hediste diversicolor</i> , <i>Tubificoides benedii</i> , <i>Gammarus oceanicus</i> , <i>Cuclidae</i> sp. larvae
5	0.196	<i>Hediste diversicolor</i> , <i>Tubificoides benedii</i> , <i>Gammarus oceanicus</i> , <i>Cuclidae</i> sp. larvae, <i>Littorina littorea</i>

Best Models

Bay of Fundy		
No. Vars	Corr.	Species
5	0.260	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Insecta</i> larvae, <i>Corophium volutator</i>

4	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Gemma gemma</i> , <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Culicidae</i> sp. larvae, <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Littorina littorea</i> , <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Jaera</i> <i>albifrons</i> , <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Ostracoda</i> spp., <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Hydrobiidae</i> spp., <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Mytilus edulis</i> , <i>Corophium volutator</i>
5	0.259	<i>Clitellio arenarius</i> , <i>Tubificoides benedii</i> , <i>Streblospio benedicti</i> , <i>Gammaridae</i> spp., <i>Corophium volutator</i>

Gulf of St. Lawrence

No. Vars	Corr.	Species
1	0.196	<i>Hediste diversicolor</i>
2	0.196	<i>Hediste diversicolor</i> , <i>Tubificoides benedii</i>
2	0.196	<i>Hediste diversicolor</i> , <i>Gammarus oceanicus</i>
2	0.196	<i>Hediste diversicolor</i> , <i>Culicidae</i> sp. larvae
2	0.196	<i>Hediste diversicolor</i> , <i>Littorina littorea</i>
2	0.196	<i>Hediste diversicolor</i> , <i>Eteone longa</i>
2	0.196	<i>Hediste diversicolor</i> , <i>Jaera albifrons</i>
2	0.196	<i>Hediste diversicolor</i> , <i>Cerebratulus</i> spp.
2	0.196	<i>Hediste diversicolor</i> , <i>Ostracoda</i> spp.
2	0.196	<i>Hediste diversicolor</i> , <i>Mytilus edulis</i>

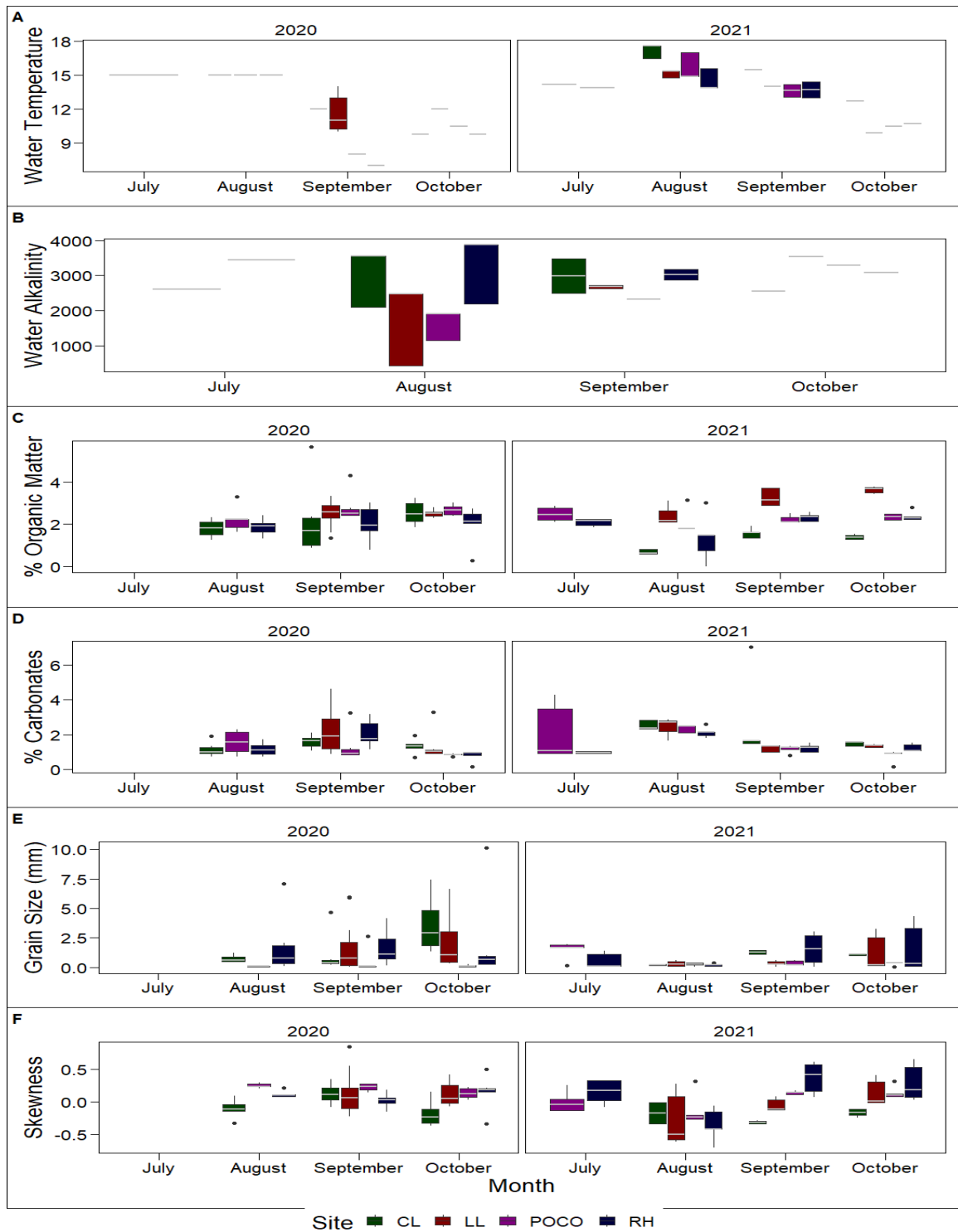


Figure 3: Additional water column and sediment characteristic abiotic condition data for intertidal sites in the Bay of Fundy from 2020 and 2021 (n=215 for pH and alkalinity and 162 for sediment grain size metrics in Bay of Fundy; volume = 160.85 cm³). Data shown at the month level for visual clarity.

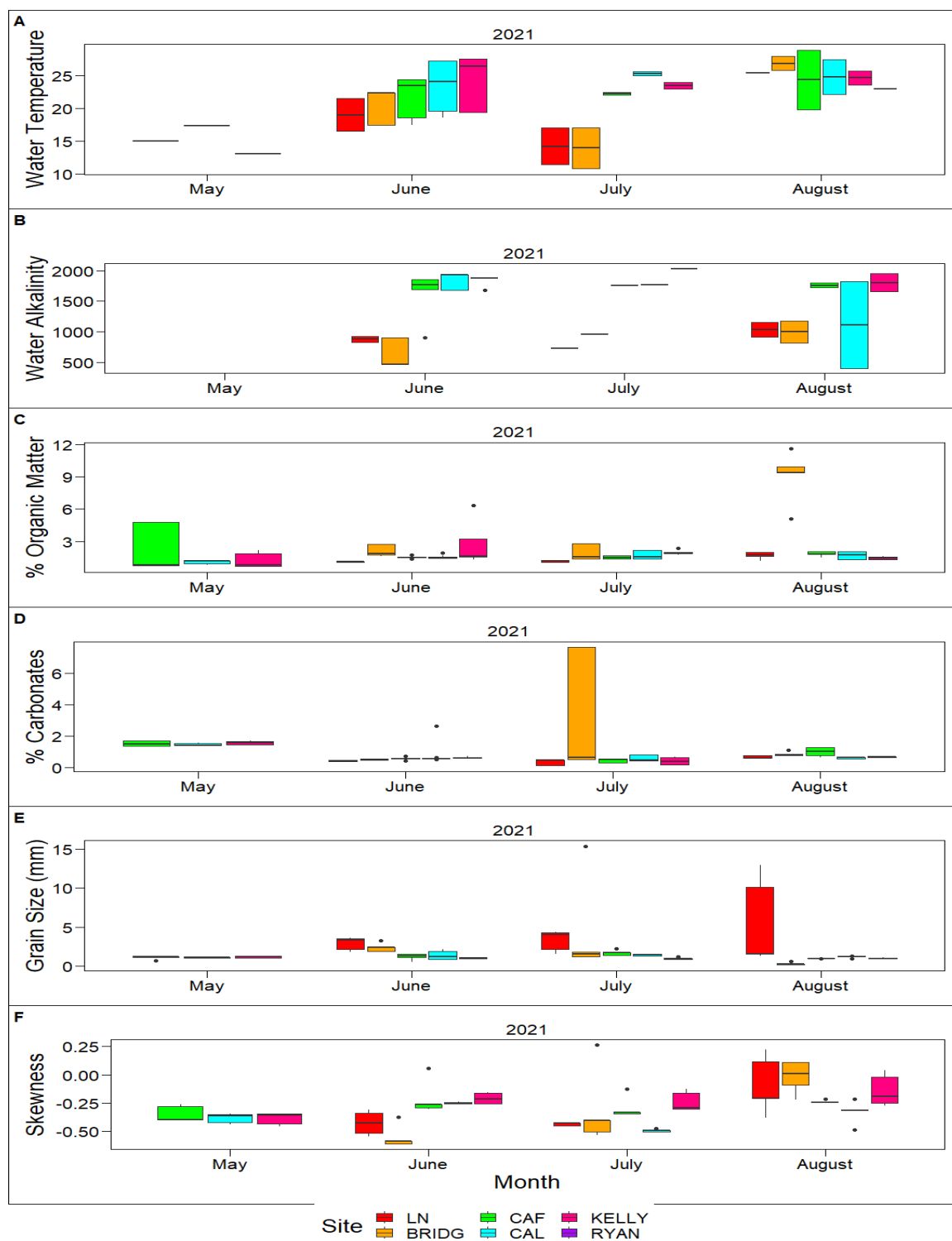


Figure 4: Additional water column and sediment characteristic abiotic condition data for intertidal sites in the Southern Gulf of St. Lawrence for 2021 (n=221 for pH and alkalinity and 54 for sediment grain size metrics in Southern Gulf of St. Lawrence; volume = 160.85 cm³). Data shown at the month level for visual clarity, with 1-2 sampling dates per month.

Table 3. AICc (Akaike Information Criterion) model selection summary for the top three Generalized Linear Mixed Models (GLMMs) for species richness, total infaunal abundance, bivalve abundance, and *Mya arenaria* abundance for the Bay of Fundy and Southern Gulf of St. Lawrence regions (n=122 for Bay of Fundy, 81 for Gulf of St. Lawrence; volume = 160.85 cm³). df is degrees of freedom, Loglik is the log-likelihood, and K is number of variables included in the model. The distribution used for the GLMM for each dependent variable is specified in parentheses.

Dependent Variable		All terms	Delta AIC	Akaike Weight	df	Loglik	K	Pseudo R ²
<i>Bay of Fundy</i>								
Bivalve abundance (Zero-inflated Poisson)	1	Salinity, Alkalinity of Water, Organic Matter Content	0	0.66	115	-88.66	7	0.055
	2	Salinity, Alkalinity of Water	2.19	0.22	116	-90.87	6	0.032
	3	Alkalinity of Water, Organic Matter Content	3.41	0.12	116	-91.48	6	0.025
<i>Mya arenaria</i> (Poisson)	1	Alkalinity of Water, Organic Matter Content	0	0.55	73	-40.56	5	0.039
	2	Alkalinity of Water, Organic Matter Content, Mean Grain Size	0.38	0.45	72	-39.58	6	0.063
	3	Alkalinity of Water	23.81	0.00	118	-52.71	4	0.022
Species Richness (Poisson)	1	Alkalinity of Water, Organic Matter Content	0	0.73	36	-142.57	5	0.151
	2	Alkalinity of Water, Organic Matter Content, Kurtosis	1.96	0.27	35	-142.38	6	0.152
	3	Alkalinity of Water	140.25	0.00	37	-213.94	4	0.192
Total Abundance (Zero-Inflated)	1	Sediment pH, Alkalinity of Water, Organic Matter Content, Sorting, Kurtosis	0	0.59	69	-840.21	9	0.835
	2	Sediment pH, Alkalinity of Water, Organic Matter	0.71	0.41	68	-839.25	10	0.835

Negative Binomial)		Content, Mean Grain Size, Sorting, Kurtosis						
	3	Sediment pH, Alkalinity of Water, Organic Matter Content, Sorting	12.33	0.00	70	-847.66	8	0.833
<i>Southern Gulf of St. Lawrence</i>								
Bivalve abundance (Zero-inflated Poisson)	1	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Sorting	0	0.62	32	-28.36	9	0.257
	2	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Sorting, Kurtosis	1.72	0.26	31	-27.46	10	0.281
	3	Sediment pH, Water Temperature, Alkalinity of Water, Organic Matter Content, Sorting	3.26	0.12	31	-28.22	10	0.260
<i>Mya arenaria</i> (Zero-inflated Poisson)	1	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Sorting	0	0.74	32	-26.78	9	0.192
	2	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Carbonates Content, Sorting	2.35	0.23	31	-26.19	10	0.210
	3	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Organic Matter Content, Carbonates Content, Sorting	6.07	0.04	30	-26.16	11	0.211
Species Richness (Poisson)	1	Salinity, Alkalinity of Sediment, Sorting	0	0.36	73	-59.10	5	0.105
	2	Sediment pH, Salinity, Alkalinity of Sediment, Sorting	0.09	0.23	72	-58.15	6	0.120

Total Abundance (Zero- Inflated Negative Binomial)	3	Alkalinity of Sediment, Sorting	0.36	0.41	118	-60.28	4	0.087
	1	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Sorting	0	0.62	32	-28.36	9	0.257
	2	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Sorting, Kurtosis	1.72	0.26	31	-27.46	10	0.281
	3	Sediment pH, Water Temp, Salinity, Alkalinity of Water, Organic Matter Content, Sorting	3.26	0.12	31	-28.22	10	0.260

Table 4: List of the species found in the infaunal invertebrate samples from the Bay of Fundy in 2020 and 2021 (n= 215) and the Gulf of St. Lawrence in 2021 (n=221).

<u>Phylum</u>	<u>Class</u>	<u>Order</u>	<u>Family</u>	<u>Species</u>	<u>Bay of Fundy</u>	<u>Gulf of St. Lawrence</u>
Annelida	Clitellata	Haplotaxida	Naididae	<i>Clitellio arenarius</i>	X	X
Annelida	Clitellata	Tubificida	Naididae	<i>Tubificoides benedii</i>	X	X
Annelida	Polychaeta	Phyllodocida	Nephtyidae	<i>Nephtys picta</i>	X	
Annelida	Polychaeta	Phyllodocida	Nereididae	<i>Hediste diversicolor</i>	X	X
Annelida	Polychaeta	Phyllodocida	Phyllodocidae	<i>Eteone longa</i>	X	X
Annelida	Polychaeta	Spionida	Spionidae	<i>Spio filicornis</i>		X
Annelida	Polychaeta	Spionida	Spionidae	<i>Streblospio benedicti</i>	X	X
Anthropoda	Copepoda	NA	NA	Copepoda spp.	X	
Anthropoda	Hexapoda	Diptera	Culcidae	Culicidae sp. larvae	X	
Anthropoda	Hexapoda	NA	NA	Insecta larvae	X	
Anthropoda	Malacostraca	Amphipoda	Corophiidae	<i>Corophium volutator</i>	X	
Anthropoda	Malacostraca	Amphipoda	Gammaridae	<i>Gammarus oceanicus</i>	X	X
Anthropoda	Malacostraca	Decapoda	Crangonidae	<i>Crangon septemspinosa</i>	X	
Mollusca	Bivalvia	Cardiida	Tellinidae	<i>Limecola balthica</i>	X	X
Mollusca	Bivalvia	Myida	Myidae	<i>Mya arenaria</i>	X	X
Mollusca	Bivalvia	Venerida	Veneridae	<i>Gemma gemma</i>		X
Mollusca	Gastropoda	Littorinimorpha	Hydrobiidae	Hydrobiidae spp.	X	X
Mollusca	Gastropoda	Littorinimorpha	Littorinoidea	<i>Littorina littorea</i>		X
Nematoda	NA	NA	NA	Nematoda spp.	X	X
Nemertea	Pilidiophora	Heteronemertea	Lineidae	<i>Cerebratulus</i> spp.	X	X

