

Supplement Table 2. Spearman corellation among funtional traits and environmental at four habitats based on abundance data. Notes C = carnivore, H = herbivores, O = omnivores, D = detritivore. Samples = 82; Layers (depth strata) = 4, but MKW = 2; times (day & night) = 2

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Areas = UpW Spearman's rho

	Times	Layers	Broadcaster	Sac-spawner	NA-Repro	Ambush	Cruise	Current	Mixed	NA-Feed	C	H	O	OC	OD	OH	Chl-a	Temperature	Salinity
Times																			
Layers	-.033																		
Broadcaster	.252	-.306																	
Sac-spawner	.315	-.252	.934**																
NA-Repro	.205	-.438*	.949**	.899**															
Ambush	.362	-.263	.909**	.956**	.839**														
Cruise	.346	-.148	.879**	.965**	.857**	.913**													
Current	.378	-.406	.921**	.921**	.931**	.881**	.900**												
Mixed	.349	-.325	.937**	.921**	.890**	.866**	.910**	.894**											
NA-Feed	.094	-.349	.945**	.900**	.974**	.835**	.834**	.868**	.877**										
C	.236	-.193	.869**	.943**	.861**	.873**	.906**	.856**	.945**	.878**									
H	.212	-.419	.821**	.847**	.842**	.828**	.802**	.898**	.805**	.782**	.809**								
O	-.087	-.124	.346	.624*	.396	.569	.374	.310	.286	.629*	.797**	.237							
OC	.227	-.531	.871**	.854**	.868**	.802**	.810**	.851**	.940**	.876**	.923**	.832**	.564						
OD	.346	-.213	.917**	.991**	.892**	.953**	.978**	.904**	.919**	.891**	.929**	.819**	.583	.854**					
OH	.323	-.325	.948**	.954**	.959**	.881**	.938**	.970**	.950**	.928**	.900**	.837**	.434	.888**	.949**				
Chl-a	.110	.612**	.378	.458*	.257	.455*	.561**	.323	.481	.317	.496*	.291	.137	.394	.496*	.383			
Temperature	.032	-.915**	.083	.031	.194	.023	-.084	.181	.008	.109	-.058	.169	.014	.223	-.018	.109	-.809**		
Salinity	-.039	.901**	-.158	-.121	-.274	-.144	.018	-.254	-.079	-.214	-.037	-.222	-.179	-.334	-.073	-.179	.699**	-.934**	

Areas = MKW Spearman's rho

	Times	Layers	Broadcaster	Sac-spawner	NA-Repro	Ambush	Cruise	Current	Mixed	NA-Feed	C	H	O	OC	OD	OH	Chl-a	Temperature	Salinity	
Times																				
Layers	.000																			
Broadcaster	-.207	-.293																		
Sac-spawner	-.414	.293	.600																	
NA-Repro	.000	-.098	.771	.771																
Ambush	-.621	.098	.657	.943**	.657															
Cruise	-.775	-.447	.800	.600	.800	.800														
Current	.207	-.098	.886*	.543	.771	.486	.600													
Mixed	.296	-.444	.821	.564	.975**	.410	.500	.872												
NA-Feed	.000	-.098	.771	.771	1.000**	.657	.800	.771	.975**											
C	.000	-.198	.928**	.638	.928**	.580	.738	.899*	.975**	.928**										
H	.000	-.198	.928**	.638	.928**	.580	.738	.899*	.975**	.928**	1.000**									
O		1.000**	-1.000**	-1.000**	-1.000**	-1.000**		-1.000**	-1.000**	-1.000**	-1.000**	-1.000**								
OC	.296	-.444	.821	.564	.975**	.410	.500	.872	1.000**	.975**	.975**	.975**	-1.000**							
OD	-.207	.098	.771	.943**	.886*	.886*	.600	.771	.821	.886*	.812*	.812*	-1.000**	.821						
OH	-.207	-.293	1.000**	.600	.771	.657	.800	.886*	.821	.771	.928**	.928**	-1.000**	.821	.771					
Chl-a	.000	-.293	.600	.714	.886*	.657	.800	.600	.821	.886*	.725	.725	-1.000**	.821	.829*	.600				
Temperature	-.207	-.878*	.600	.200	.486	.371	.800	.371	.667	.486	.522	.522	-1.000**	.667	.371	.600	.657			
Salinity	.420	.891*	-.203	.145	.000	-.116	-.632	.145	-.237	.000	-.044	-.044	1.000**	-.237	.087	-.203	-.232	-.841*		

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Areas = OnSW Spearman's rho

	Times	Layers	Broadcaster	Sac-spawner	NA-Repro	Ambush	Cruise	Current	Mixed	NA-Feed	C	H	O	OC	OD	OH	Chl-a	Temperature	Salinity	
Times																				
Layers	-.146																			
Broadcaster	-.051	-.101																		
Sac-spawner	.182	.151	.741**																	
NA-Repro	.318	-.025	.837**	.889**																
Ambush	.363	.250	.705**	.914**	.818**															
Cruise	.195	.638*	.228	.669*	.494	.673*														
Current	.051	-.275	.903**	.749**	.921**	.626*	.273													
Mixed	.	-.688*	.243	.444	.393	.469	-.175	.343												
NA-Feed	.182	.021	.820**	.954**	.964**	.829**	.515	.890**	.452											
C	.051	-.211	.374	.745**	.618*	.578*	.637*	.593*	.695*	.727**										
H	.285	-.667*	.291	.396	.544	.352	-.310	.560*	.879**	.511	.594*									
O	.301	.051	.448	.523	.532	.716*	.387	.460	.406	.505	.523	.418								
OC	.	-.212	-.176	.126	.075	.167	-.054	-.008	.782*	.084	.377	.678*	.029							
OD	.318	.166	.736**	.975**	.921**	.929**	.609*	.741**	.427	.954**	.635*	.423	.523	.109						
OH	-.091	-.075	.969**	.786**	.860**	.702**	.375	.934**	.351	.865**	.620*	.418	.624*	-.050	.760**					
Chl-a	.318	.443	.046	.457	.307	.418	.662*	.015	-.343	.336	.099	-.192	-.037	-.159	.468	.088				
Temperature	.499	-.774**	.108	.054	.236	.079	-.368	.262	.644	.168	.310	.654*	.532	.109	.082	.127	-.279			
Salinity	-.409	.786**	.004	-.057	-.227	.034	.511	-.174	-.731*	-.182	-.229	-.715**	-.174	-.261	-.097	-.063	.168	-.892**		

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Areas = OSW Spearman's

	Times	Layers	Broadcaster	Sac-spawner	NA-Repro	Ambush	Cruise	Current	Mixed	NA-Feed	C	H	O	OC	OD	OH	Chl-a	Temperature	Salinity	
Times																				
Layers	.000																			
Broadcaster	.256	-.258																		
Sac-spawner	.270	-.101	.931**																	
NA-Repro	.301	-.236	.946**	.945**																
Ambush	.252	-.025	.911**	.928**	.897**															
Cruise	.148	.067	.771**	.857**	.846**	.766**														
Current	.256	-.236	.993**	.932**	.950**	.911**	.778**													
Mixed	.133	-.057	.843**	.879**	.876**	.880**	.788**	.852**												
NA-Feed	.301	-.246	.953**	.952**	.991**	.894**	.830**	.953**	.868**											
C	.206	-.239	.932**	.898**	.937**	.849**	.818**	.936**	.844**	.927**										
H	.153	-.264	.911**	.906**	.890**	.882**	.765**	.921**	.847**	.899**	.891**									
O	.079	-.238	.894**	.850**	.853**	.823**	.744**	.877**	.815**	.840**	.902**	.805**								
OC	-.057	-.224	.891**	.880**	.860**	.856**	.627**	.871**	.908**	.868**	.813**	.855**	.737**							
OD	.283	-.056	.913**	.978**	.928**	.949**	.835**	.914**	.874**	.943**	.850**	.894**	.790**	.870**						
OH	.256	-.229	.989**	.933**	.950**	.915**	.781**	.998**	.857**	.951**	.940**	.919**	.880**	.870**	.915**					
Chl-a	.084	.724**	.023	.178	.049	.262	.129	.012	.169	.056	-.023	.042	.045	.105	.239	.014				
Temperature	.082	-.828**	.001	-.134	-.011	-.228	-.256	-.005	-.126	-.016	.008	-.018	-.043	-.079	-.205	-.003	-.777**			
Salinity	-.080	.864**	-.151	.001	-.150	.085	.177	-.137	-.062	-.164	-.140	-.166	-.142	-.080	.052	-.132	.633**	-.824**		

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).