

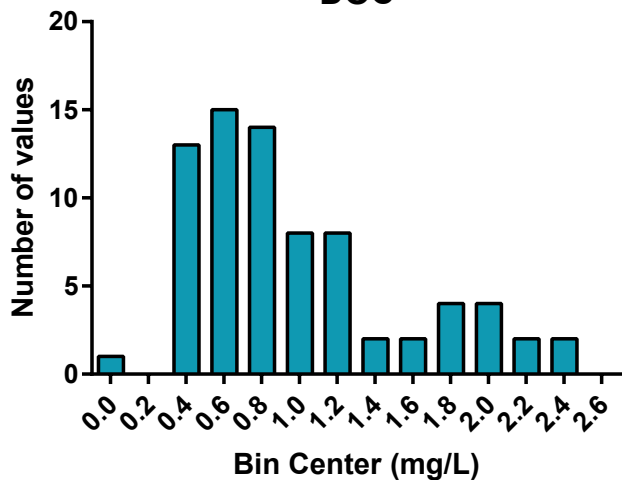
APPENDIX K

STATISTICAL ANALYSES

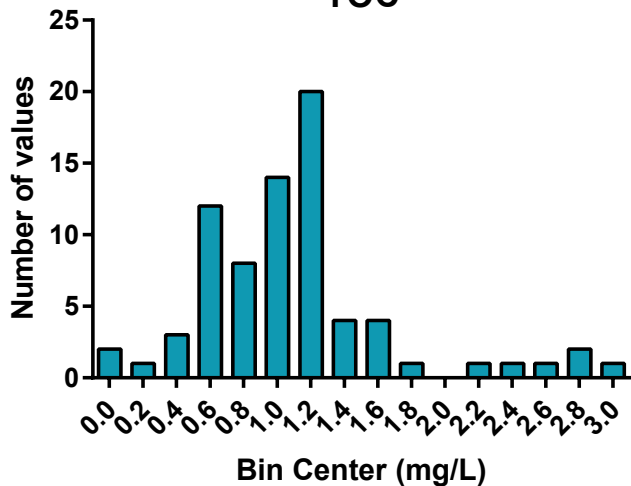
2013 Data Distribution Plots

Water Chemistry

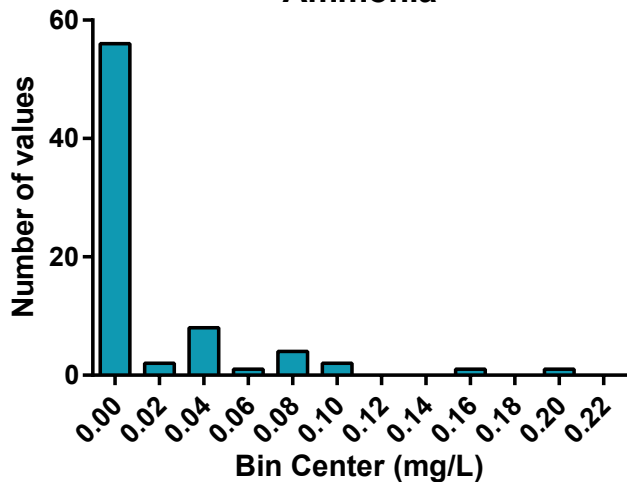
**Histogram of All Parent Data_Raw
DOC**



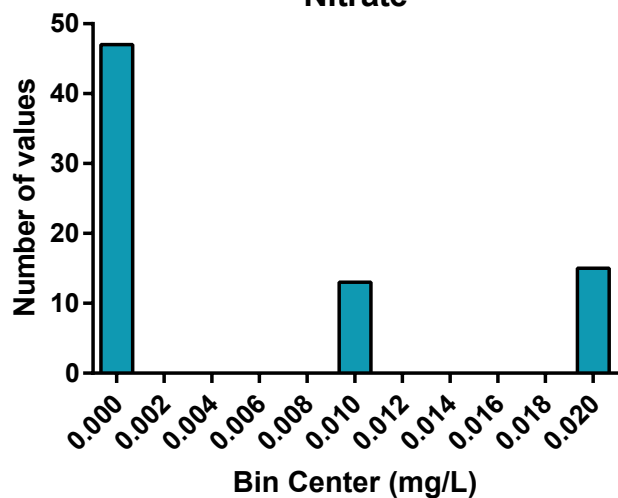
**Histogram of All Parent Data_Raw
TOC**



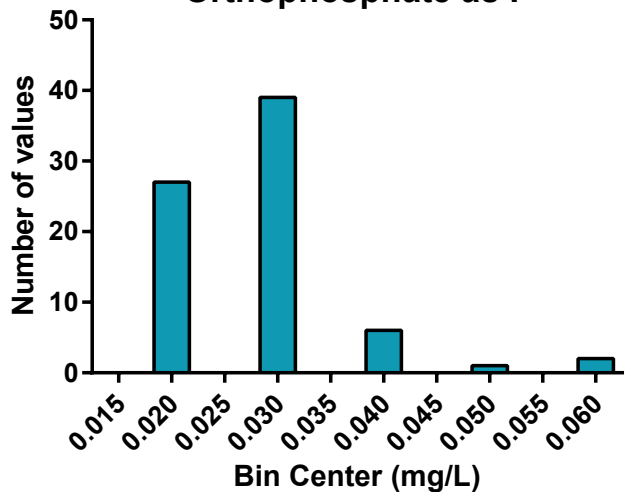
**Histogram of All Parent Data_Raw
Ammonia**



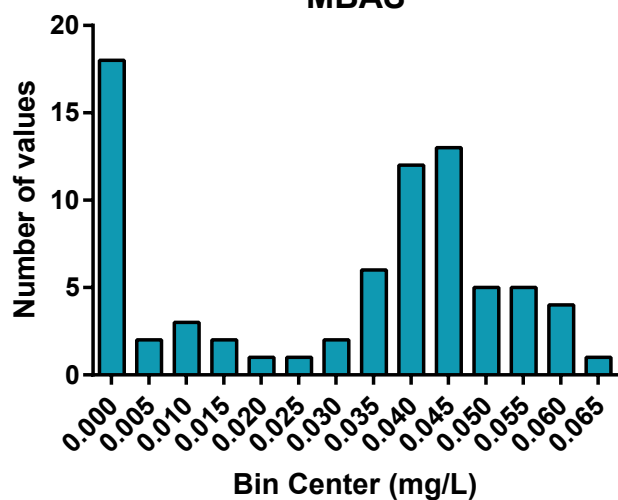
**Histogram of All Parent Data_Raw
Nitrate**



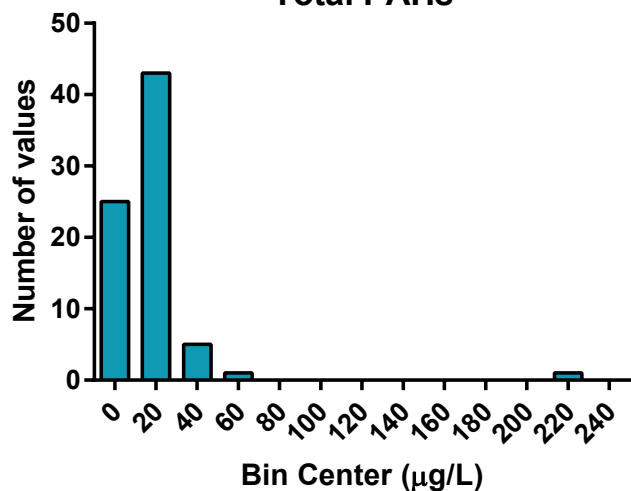
**Histogram of All Parent Data_Raw
Orthophosphate as P**



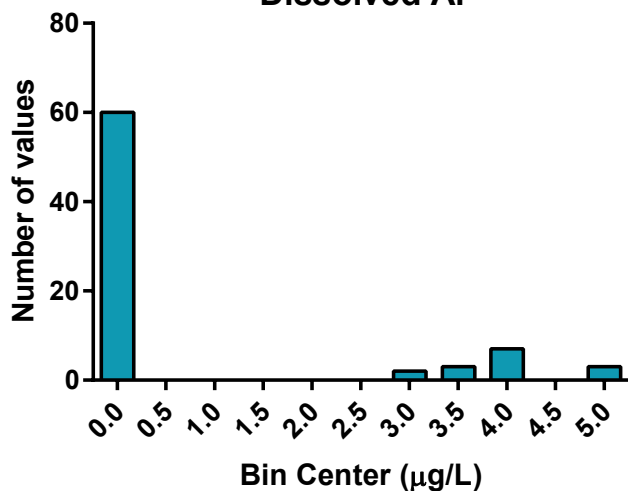
**Histogram of All Parent Data_Raw
MBAS**



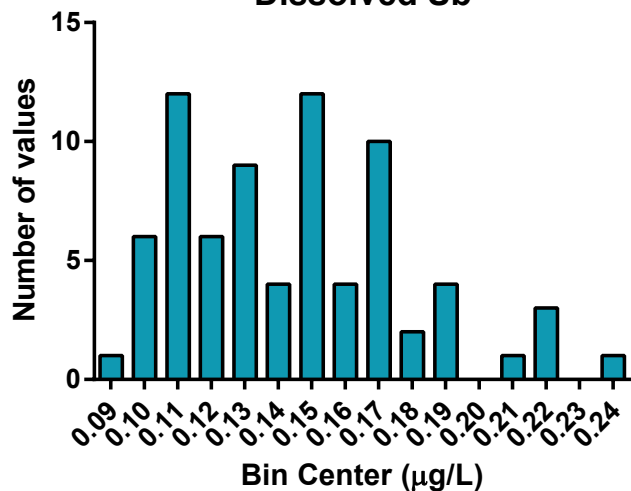
**Histogram of All Parent Data_Raw
Total PAHs**



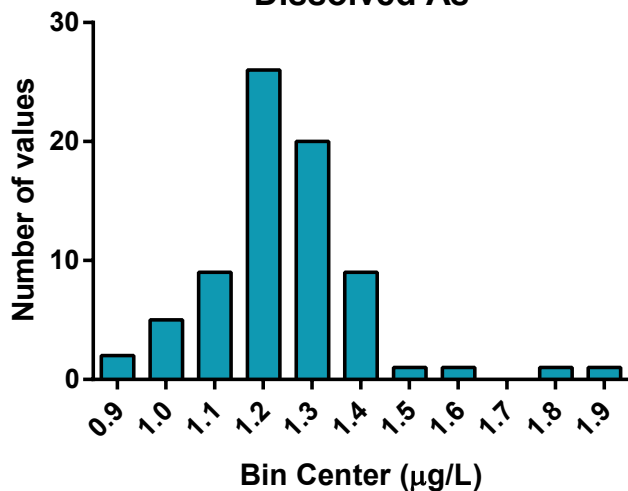
**Histogram of All Parent Data_Raw
Dissolved Al**



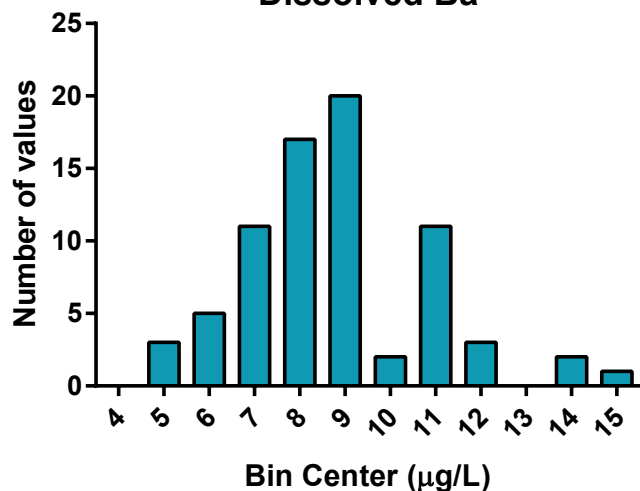
**Histogram of All Parent Data_Raw
Dissolved Sb**



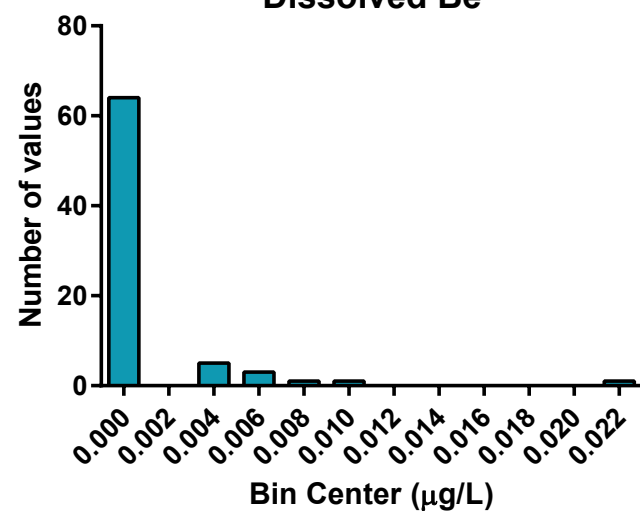
**Histogram of All Parent Data_Raw
Dissolved As**



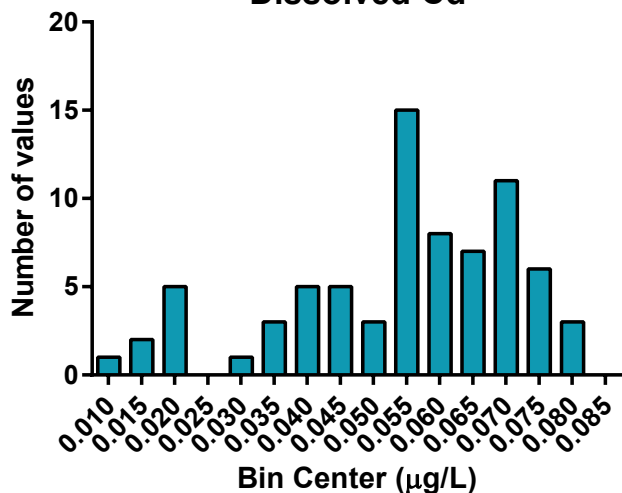
**Histogram of All Parent Data_Raw
Dissolved Ba**



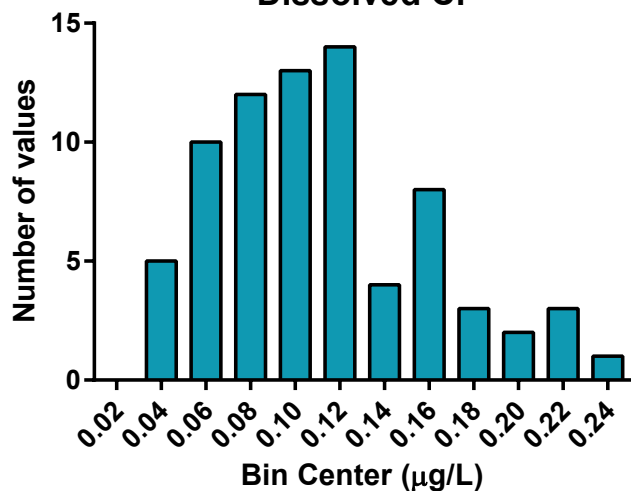
**Histogram of All Parent Data_Raw
Dissolved Be**



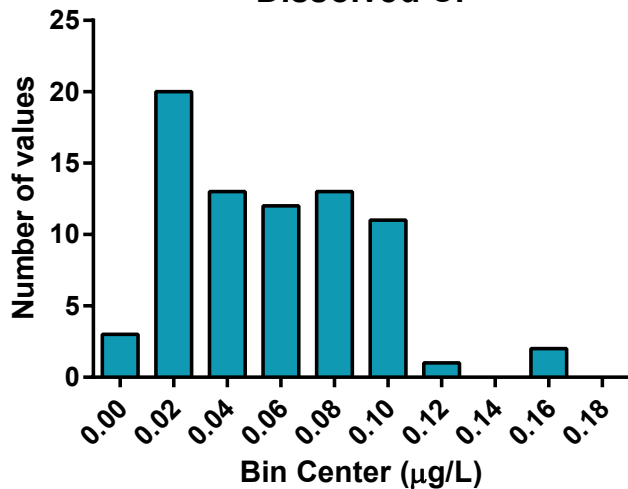
**Histogram of All Parent Data_Raw
Dissolved Cd**



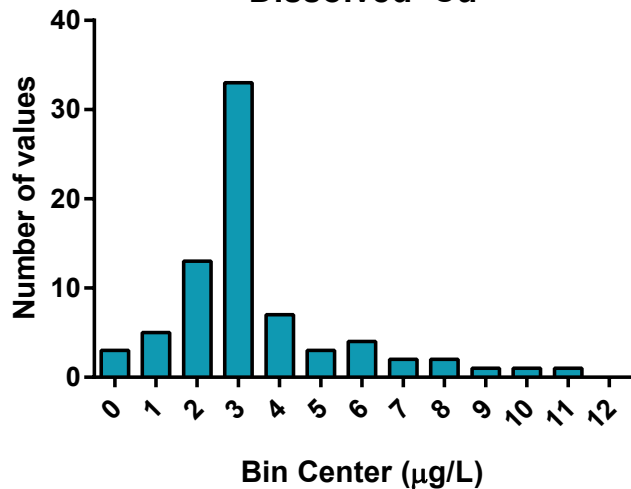
**Histogram of All Parent Data_Raw
Dissolved Cr**



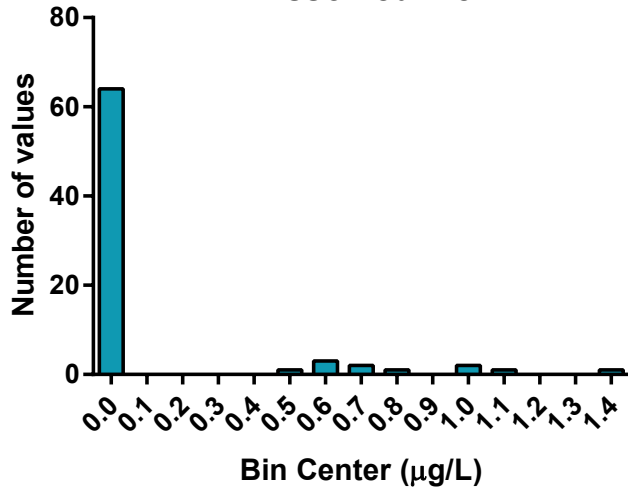
**Histogram of All Parent Data_Raw
Dissolved Cr**



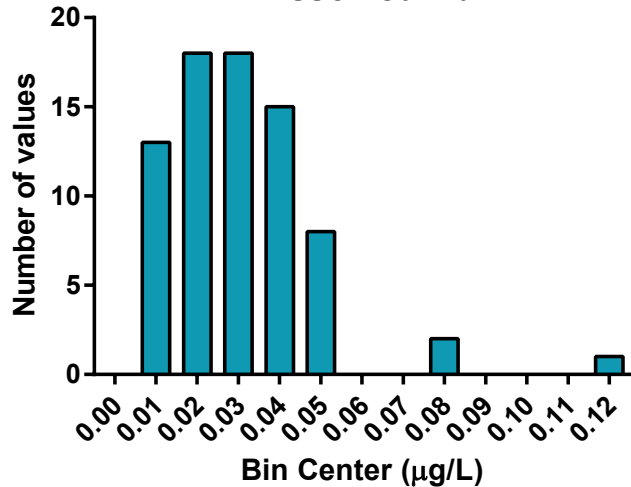
**Histogram of All Parent Data_Raw
Dissolved Cu**



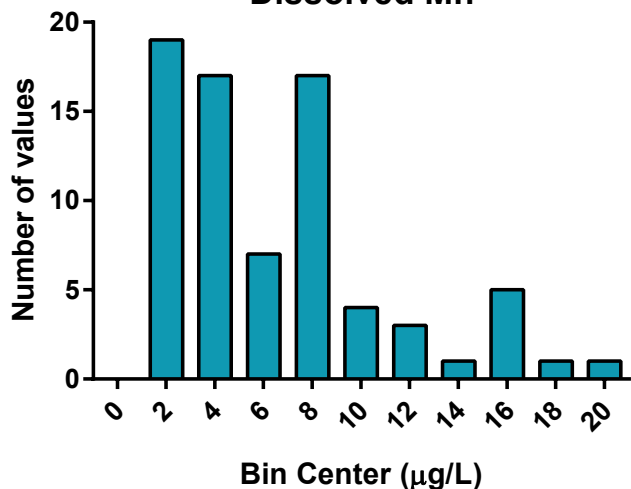
**Histogram of All Parent Data_Raw
Dissolved Fe**



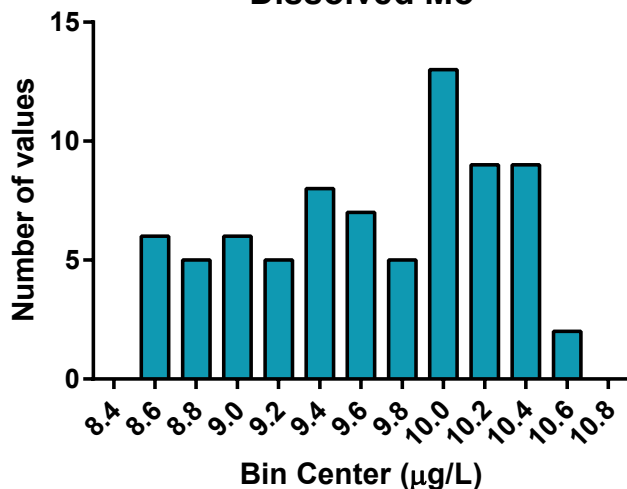
**Histogram of All Parent Data_Raw
Dissolved Pb**



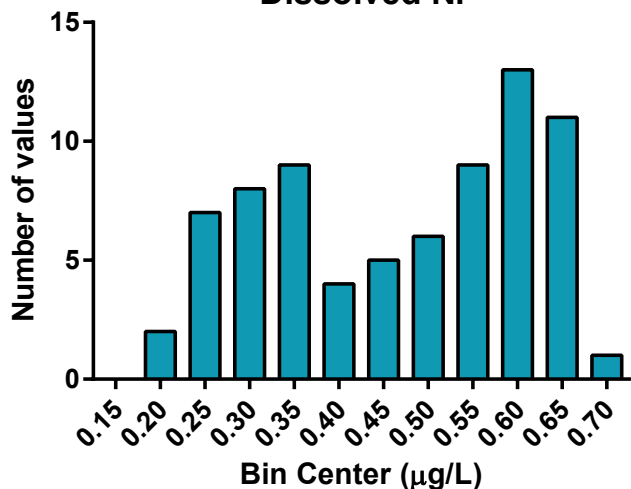
**Histogram of All Parent Data_Raw
Dissolved Mn**



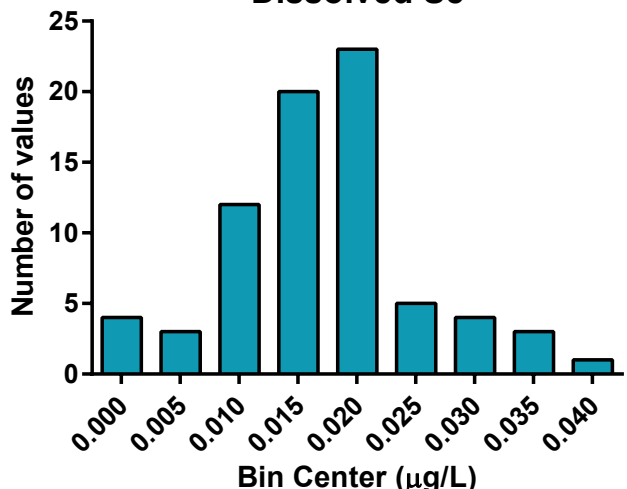
**Histogram of All Parent Data_Raw
Dissolved Mo**



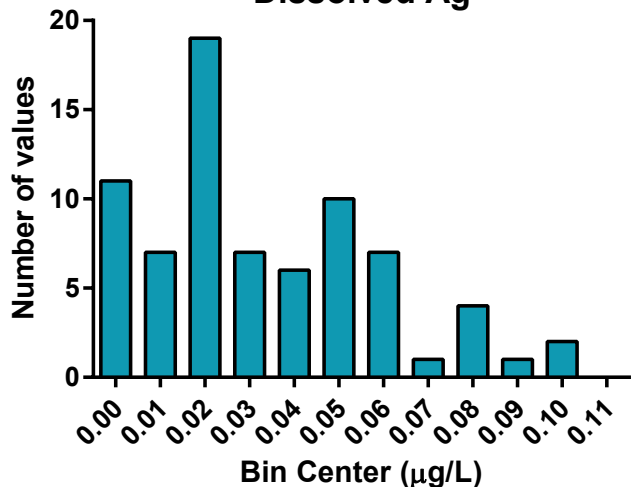
**Histogram of All Parent Data_Raw
Dissolved Ni**



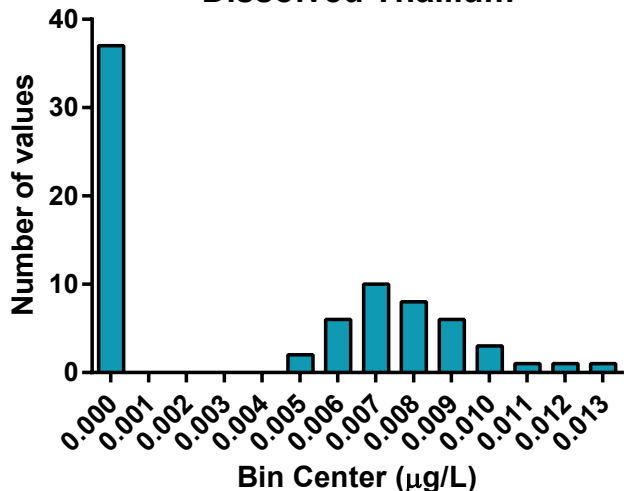
**Histogram of All Parent Data_Raw
Dissolved Se**



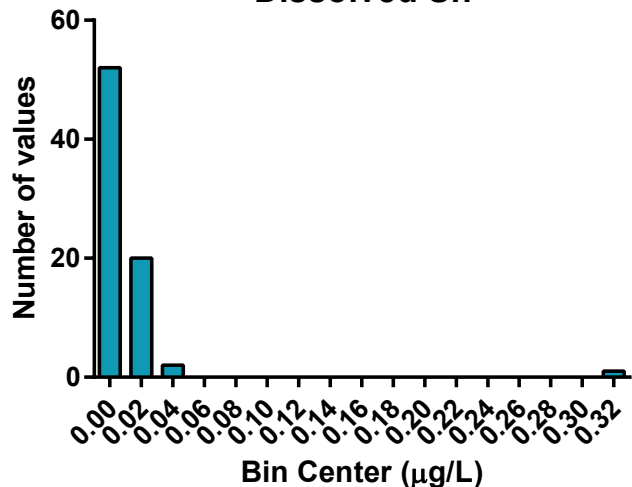
**Histogram of All Parent Data_Raw
Dissolved Ag**



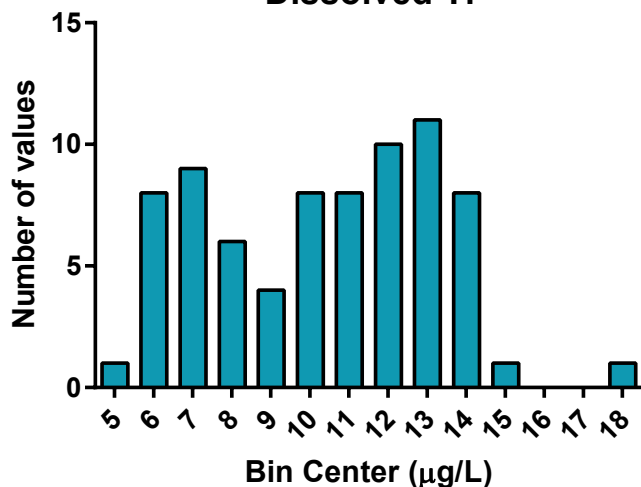
**Histogram of All Parent Data_Raw
Dissolved Thallium**



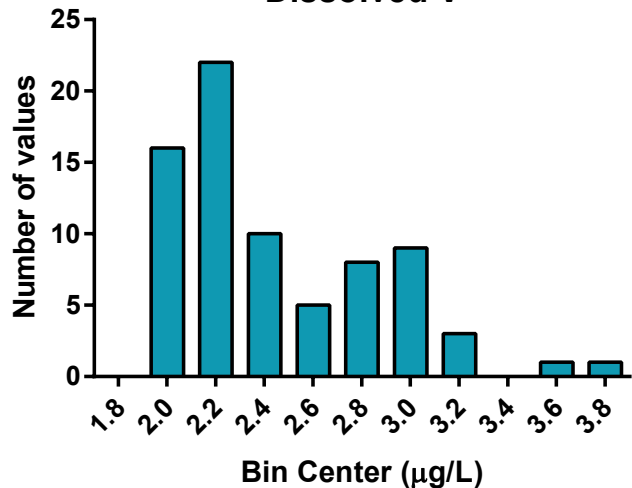
**Histogram of All Parent Data_Raw
Dissolved Sn**



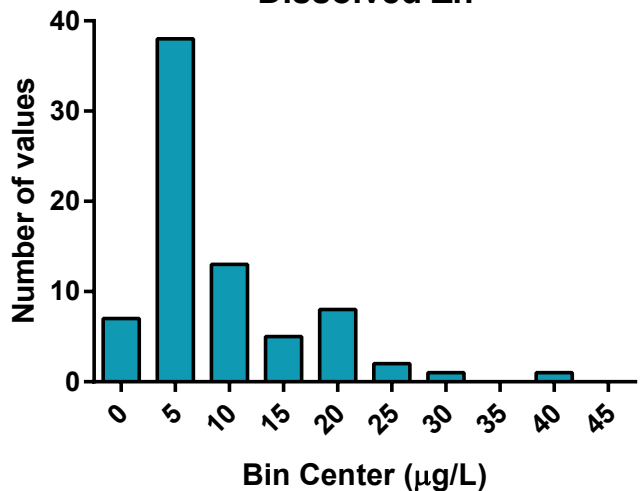
**Histogram of All Parent Data_Raw
Dissolved Ti**



**Histogram of All Parent Data_Raw
Dissolved V**

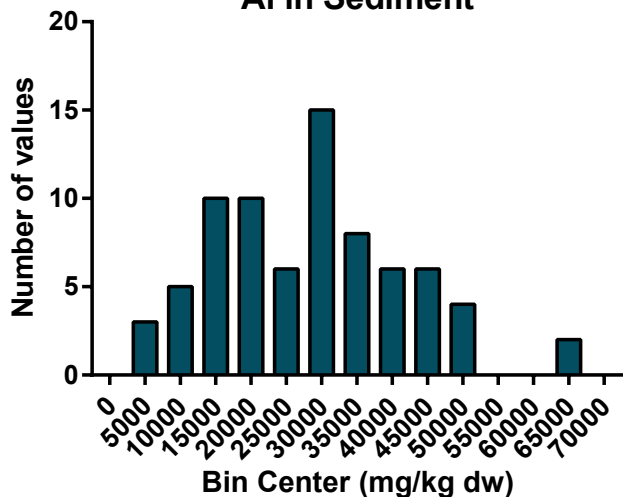


**Histogram of All Parent Data_Raw
Dissolved Zn**

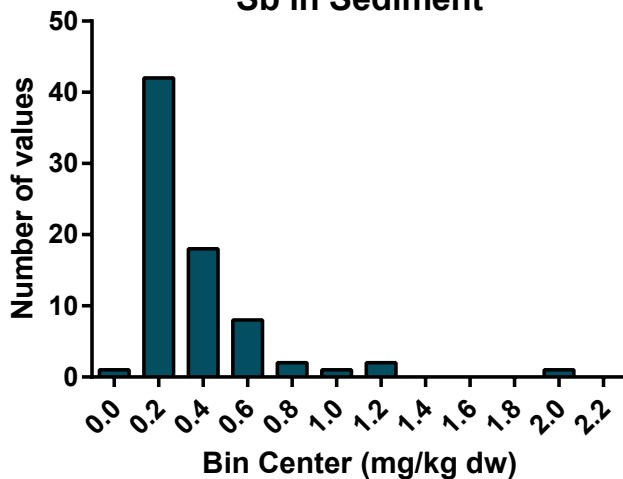


Sediment Chemistry

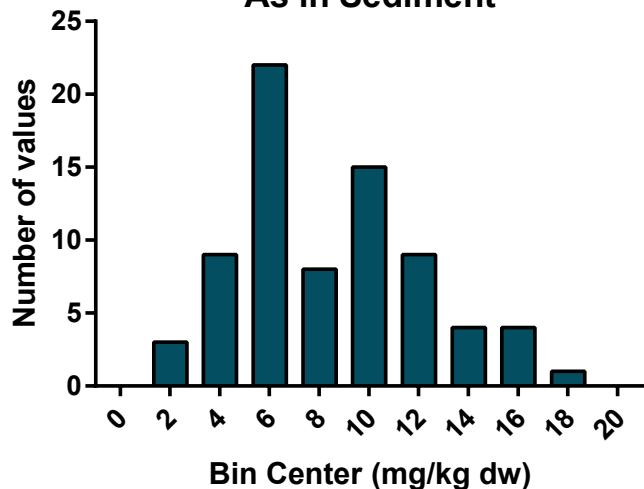
**Histogram of All Parent Data_Raw
Al in Sediment**



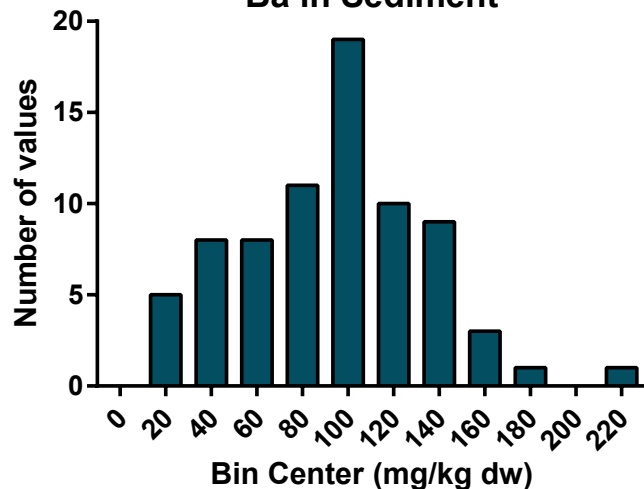
**Histogram of All Parent Data_Raw
Sb in Sediment**



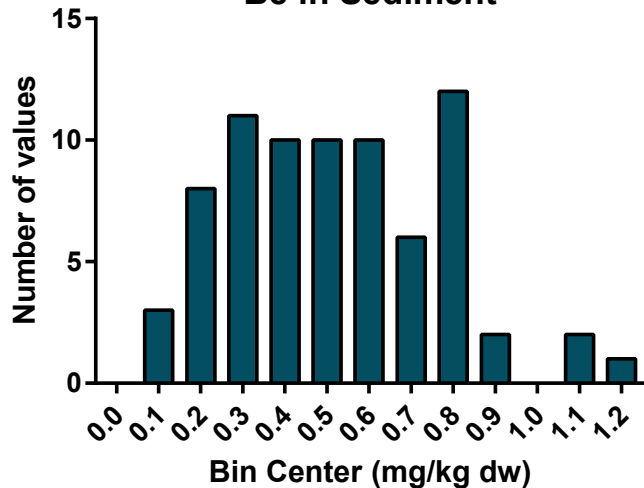
**Histogram of All Parent Data_Raw
As in Sediment**



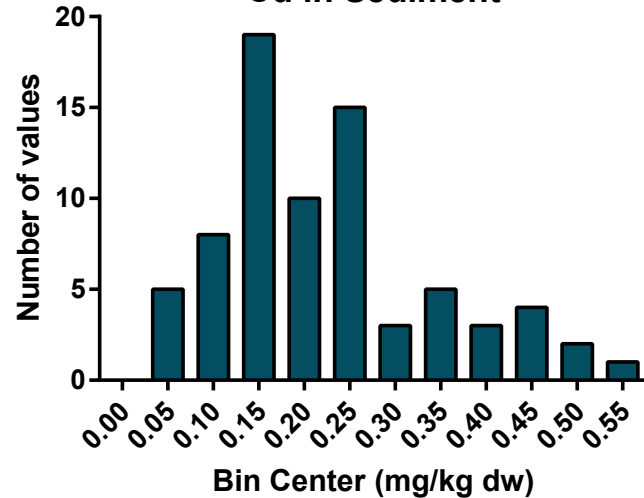
**Histogram of All Parent Data_Raw
Ba in Sediment**



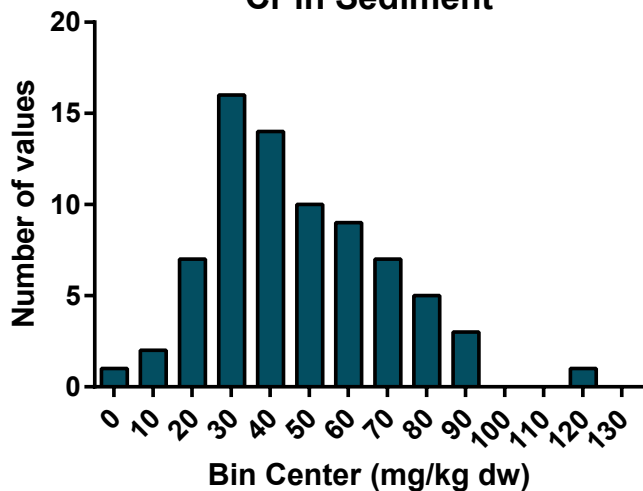
**Histogram of All Parent Data_Raw
Be in Sediment**



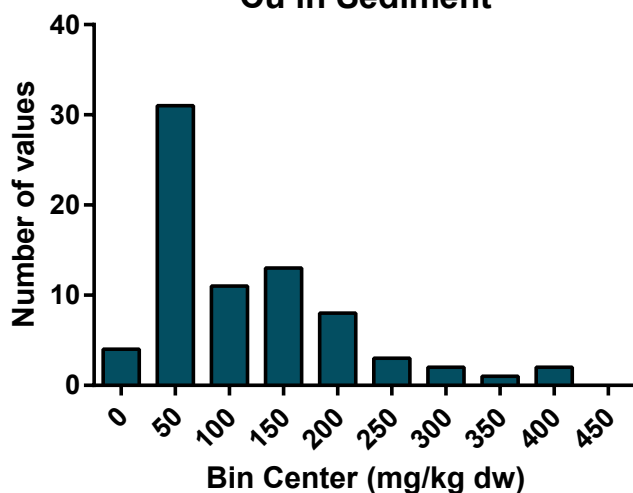
**Histogram of All Parent Data_Raw
Cd in Sediment**



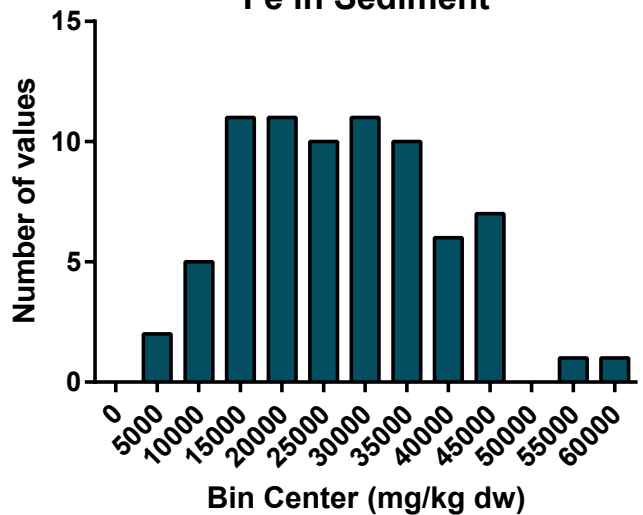
**Histogram of All Parent Data_Raw
Cr in Sediment**



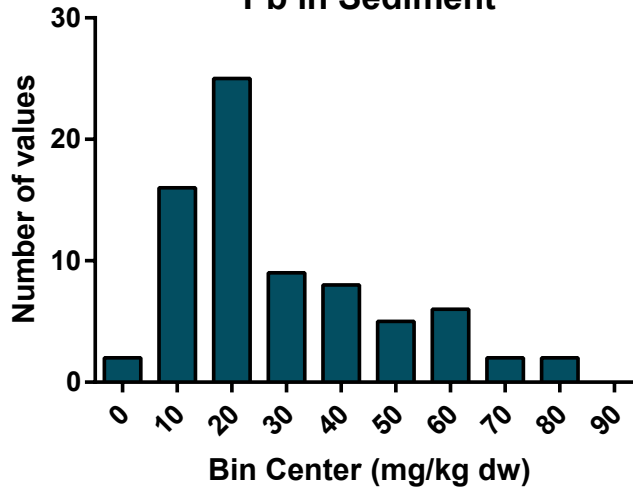
**Histogram of All Parent Data_Raw
Cu in Sediment**



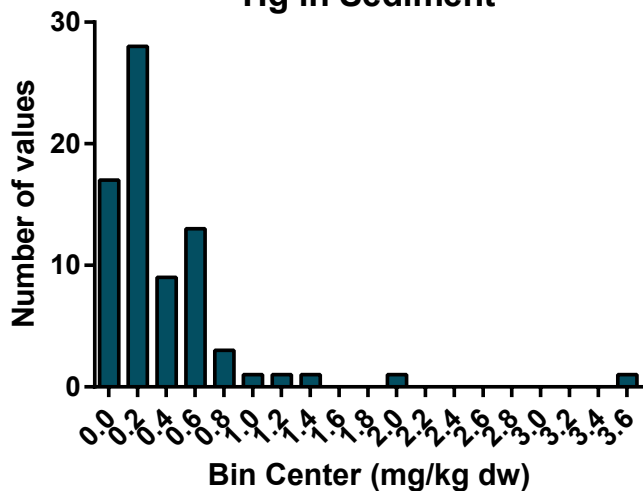
**Histogram of All Parent Data_Raw
Fe in Sediment**



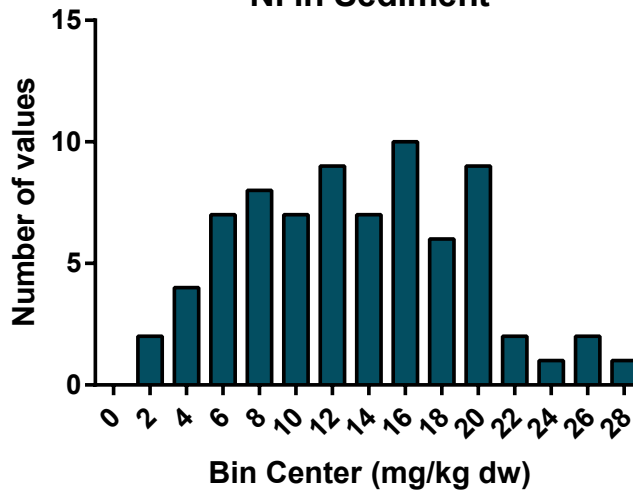
**Histogram of All Parent Data_Raw
Pb in Sediment**



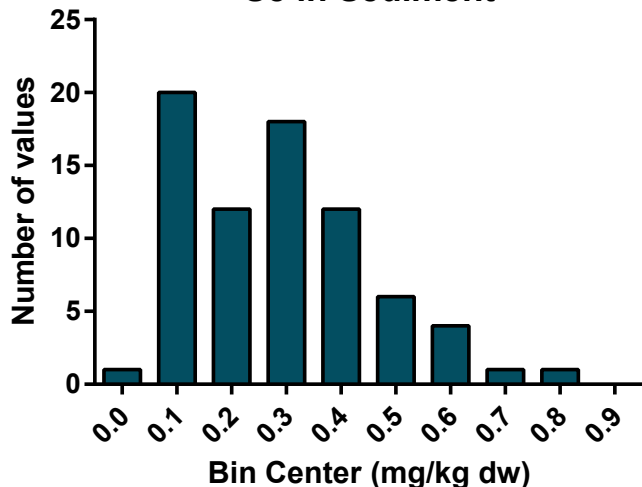
**Histogram of All Parent Data_Raw
Hg in Sediment**



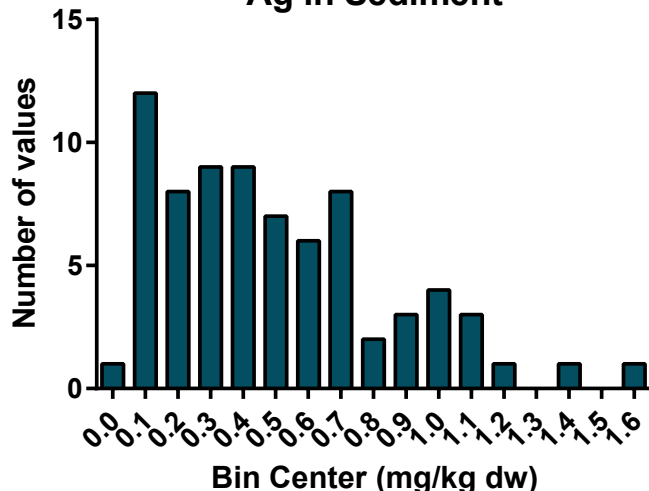
**Histogram of All Parent Data_Raw
Ni in Sediment**



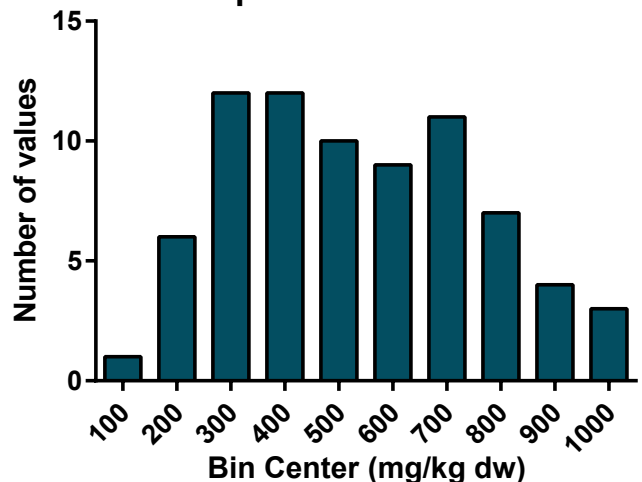
**Histogram of All Parent Data_Raw
Se in Sediment**



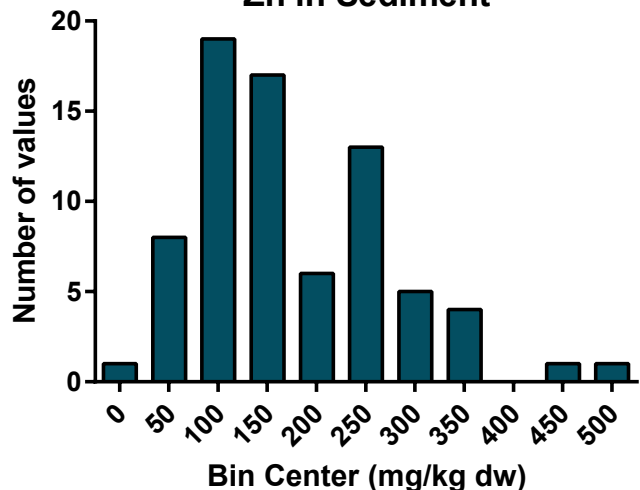
**Histogram of All Parent Data_Raw
Ag in Sediment**



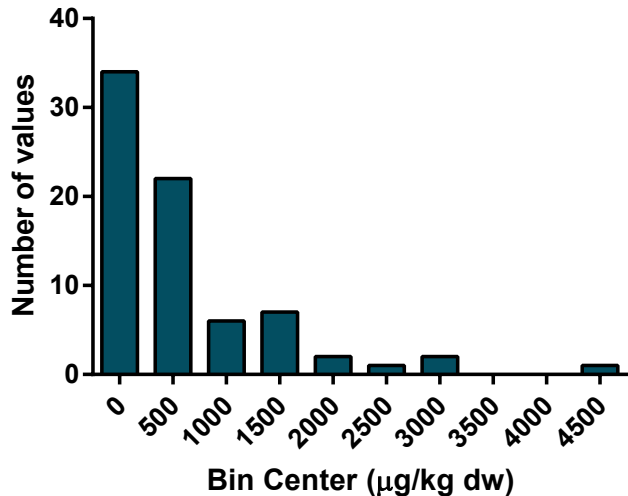
**Histogram of All Parent Data_Raw
Phosphorous in Sediment**



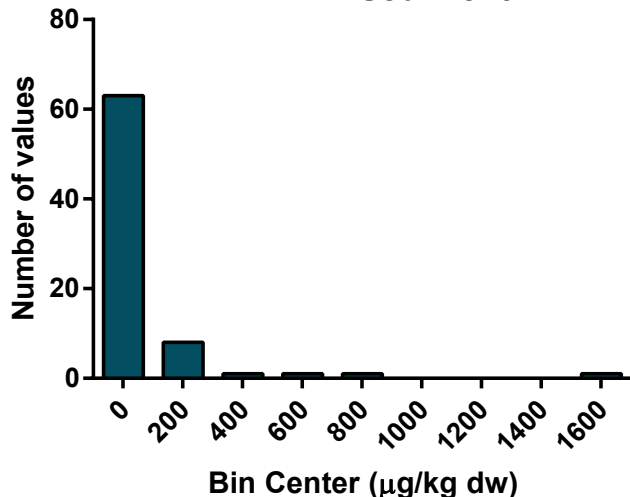
**Histogram of All Parent Data_Raw
Zn in Sediment**



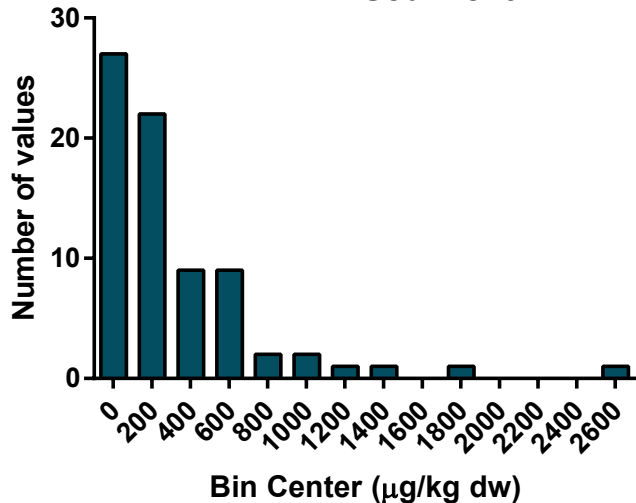
**Histogram of All Parent Data_Raw
T-PAHs in Sediment**



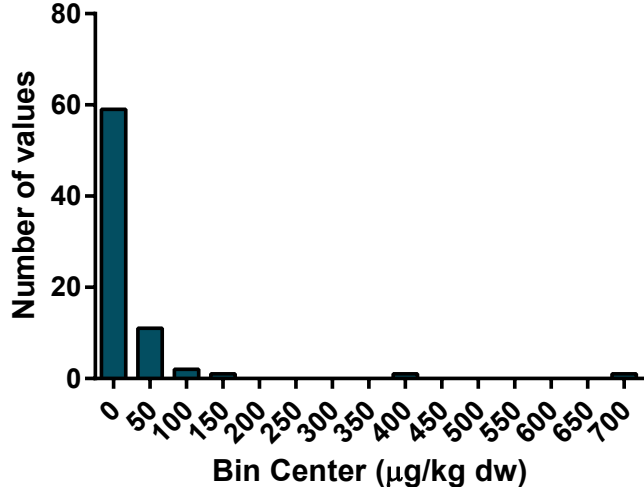
**Histogram of All Parent Data_Raw
LPAH in Sediment**



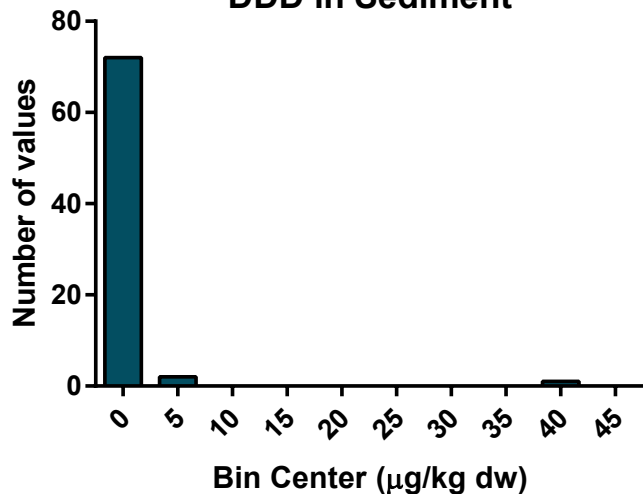
**Histogram of All Parent Data_Raw
HPAH in Sediment**



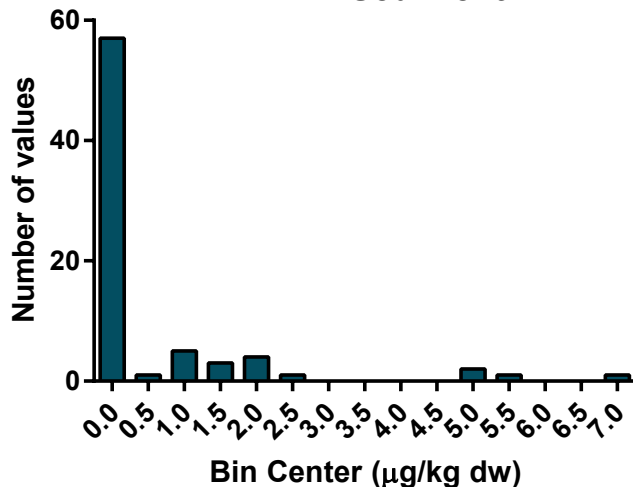
**Histogram of All Parent Data_Raw
TCBs in Sediment**



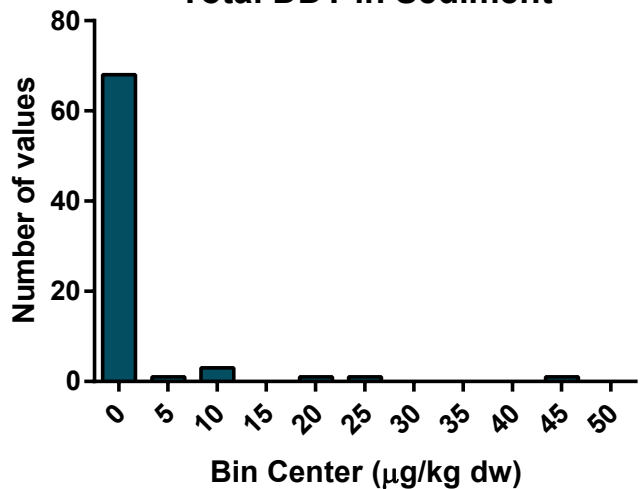
**Histogram of All Parent Data_Raw
DDD in Sediment**



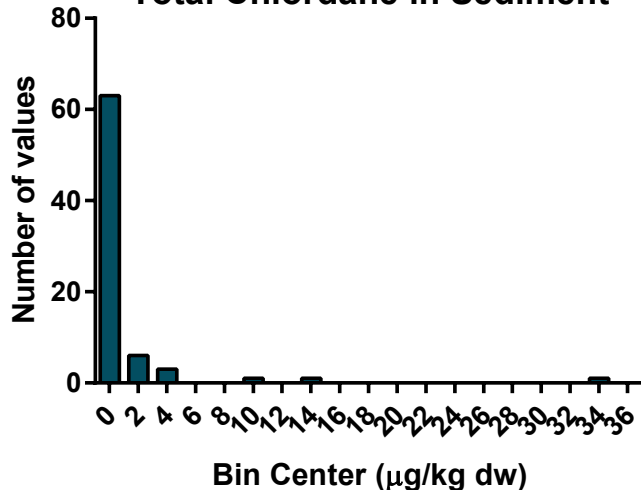
**Histogram of All Parent Data_Raw
DDE in Sediment**



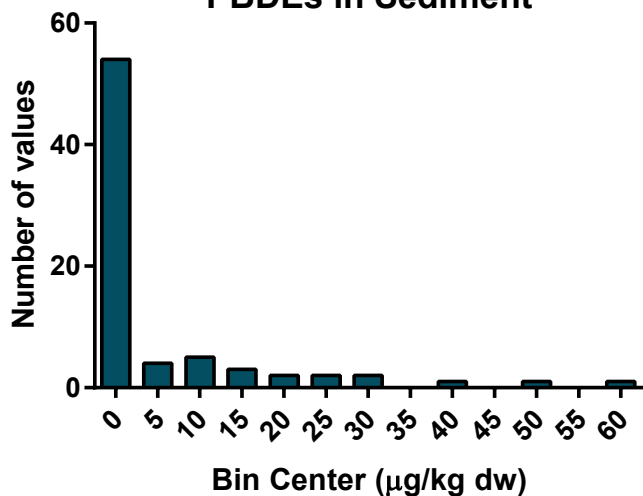
**Histogram of All Parent Data_Raw
Total DDT in Sediment**



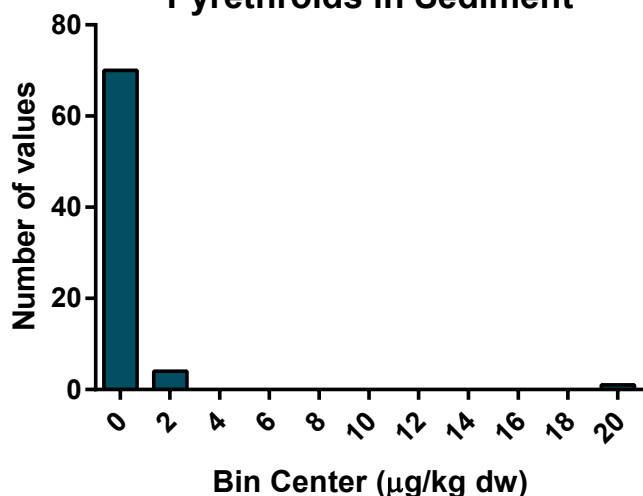
**Histogram of All Parent Data_Raw
Total Chlordane in Sediment**



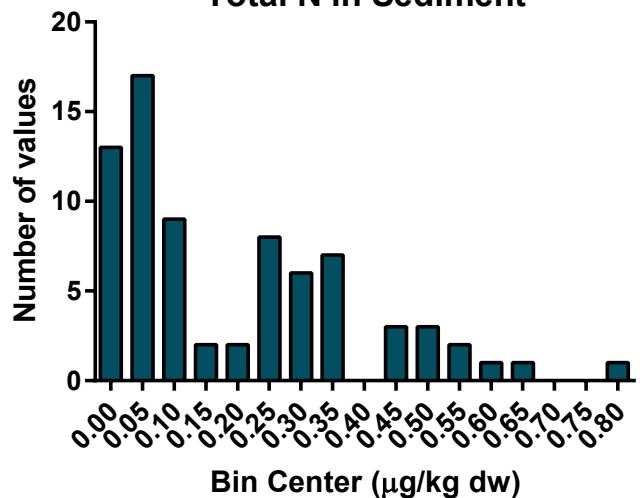
**Histogram of All Parent Data_Raw
PBDEs in Sediment**



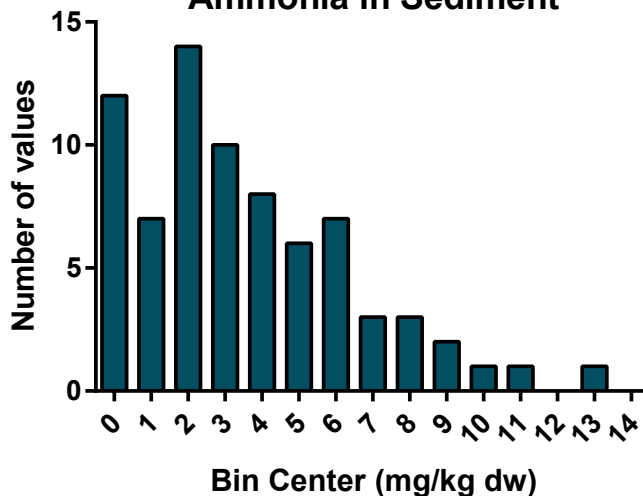
**Histogram of All Parent Data_Raw
Pyrethroids in Sediment**



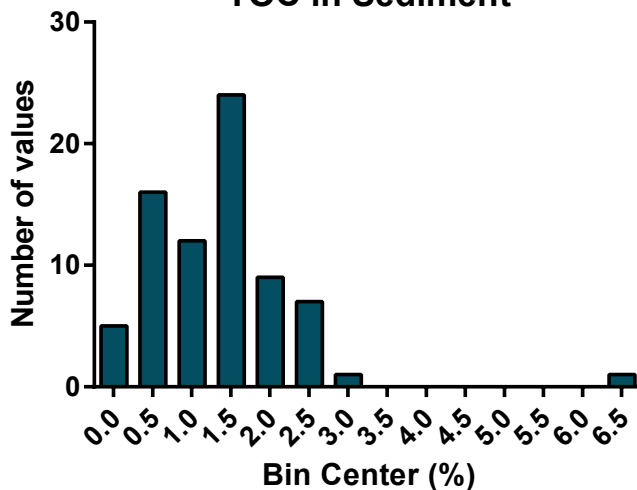
**Histogram of All Parent Data_Raw
Total N in Sediment**



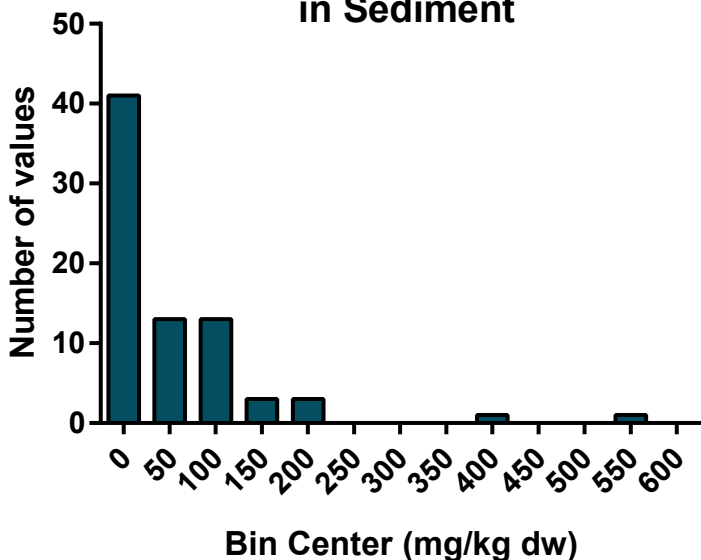
**Histogram of All Parent Data_Raw
Ammonia in Sediment**



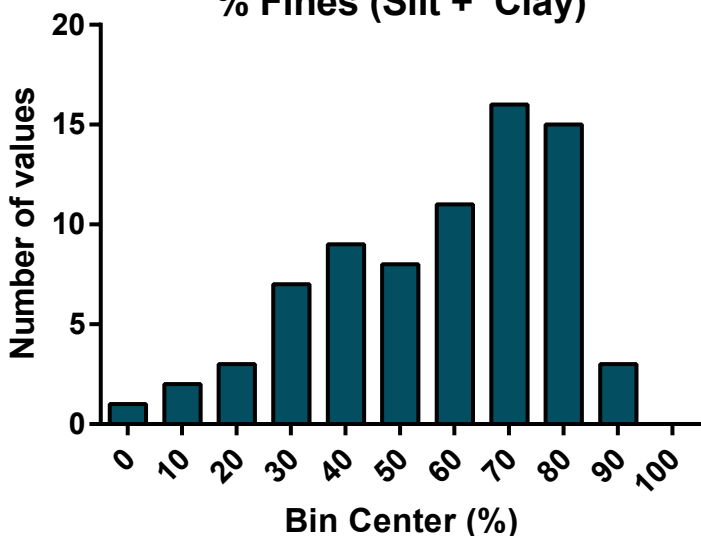
**Histogram of All Parent Data_Raw
TOC in Sediment**



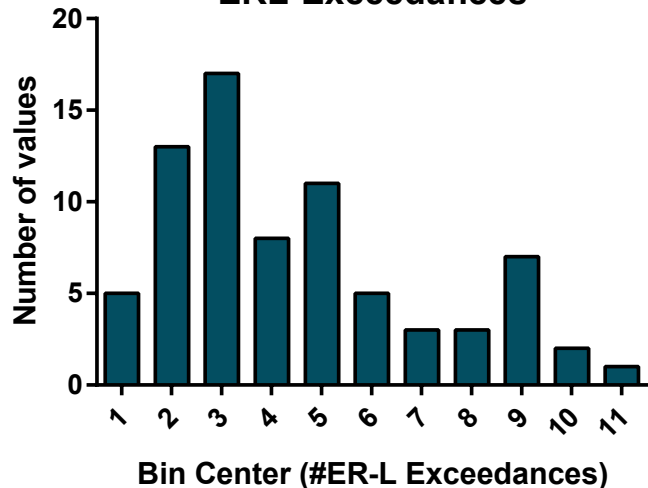
**Histogram of All Parent Data_Raw
Acid Volatile Sulfides (AVS)
in Sediment**



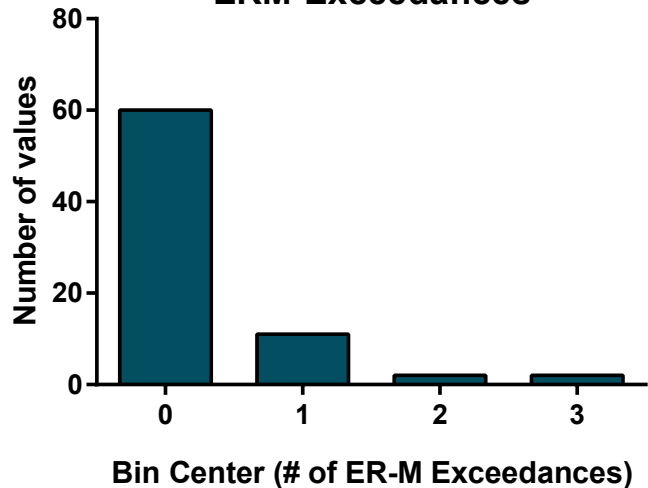
**Histogram of All Parent Data_Raw
% Fines (Silt + Clay)**



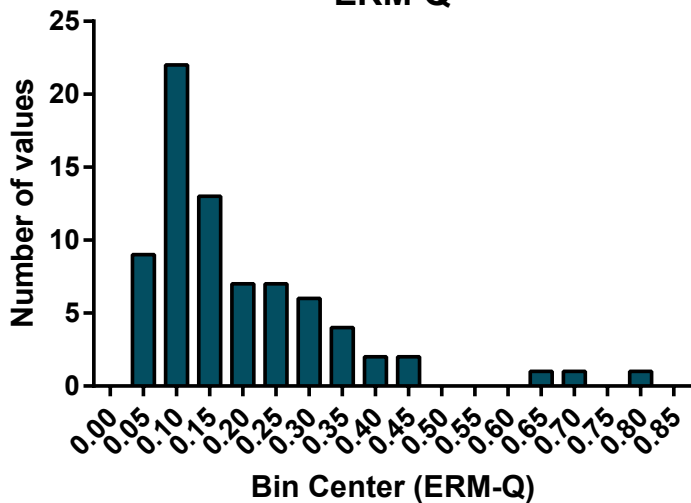
**Histogram of All Parent Data_Raw
ERL-Exceedances**



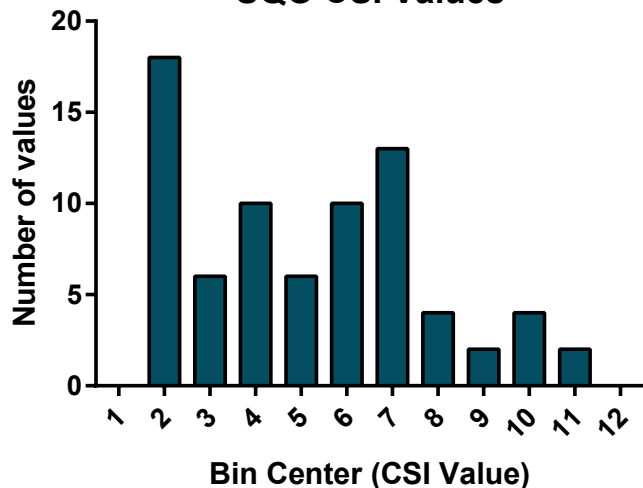
**Histogram of All Parent Data_Raw
ERM-Exceedances**



**Histogram of All Parent Data_Raw
ERM-Q**

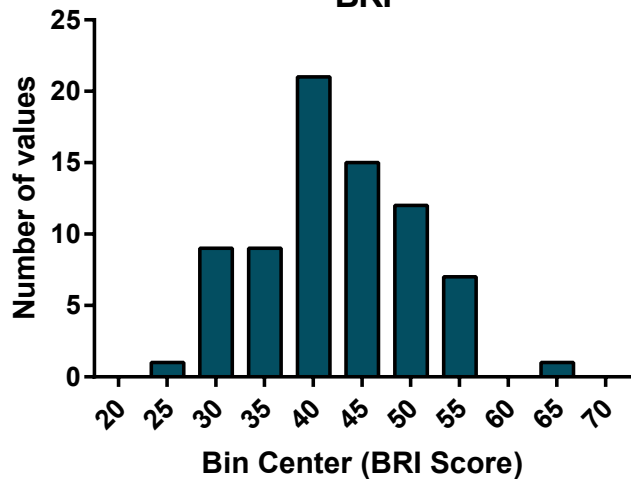


**Histogram of All Parent Data_Raw
SQO CSI Values**

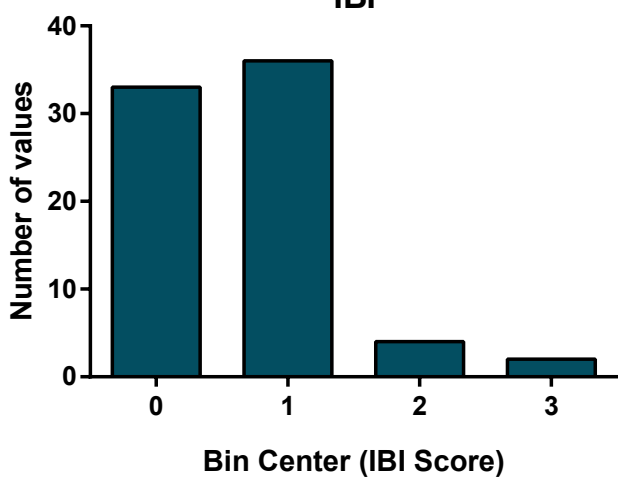


Benthic Community

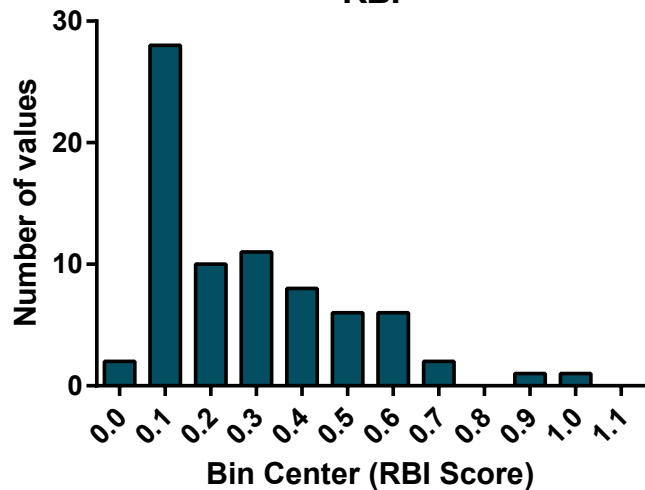
**Histogram of All Parent Data_Raw
BRI**



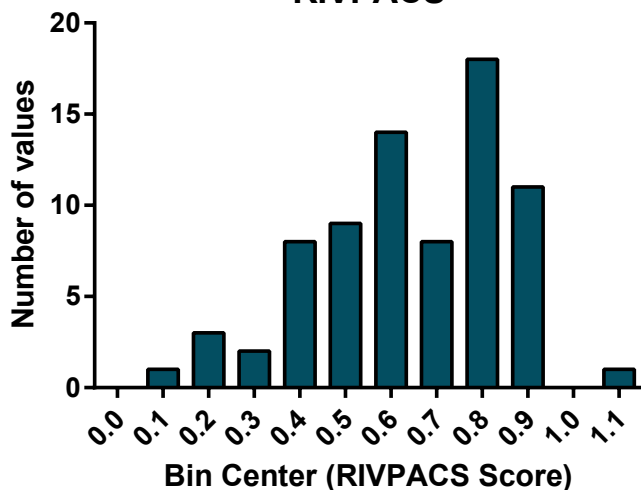
**Histogram of All Parent Data_Raw
IBI**



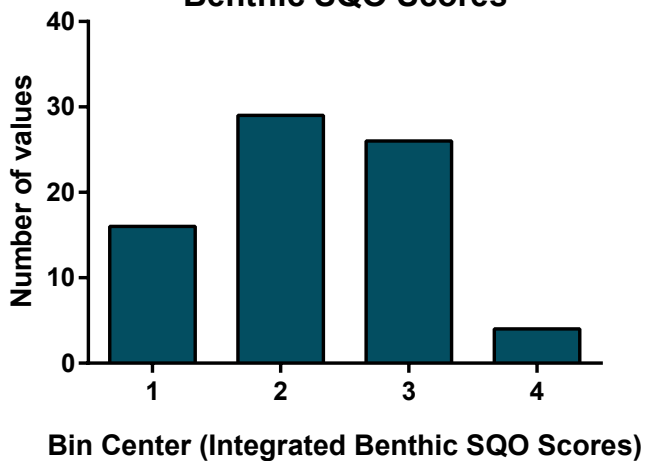
**Histogram of All Parent Data_Raw
RBI**



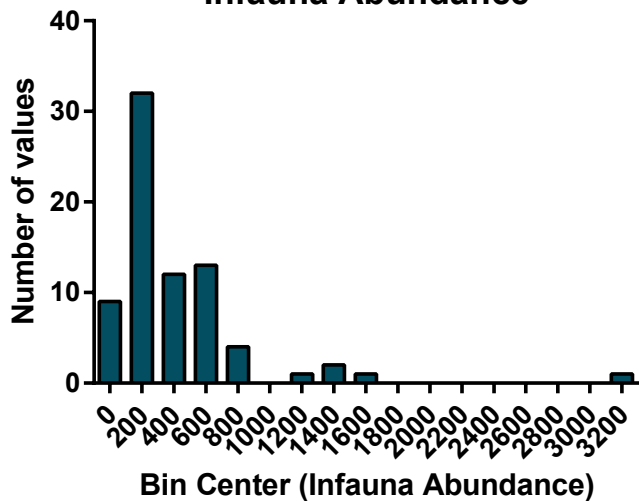
**Histogram of All Parent Data_Raw
RIVPACS**



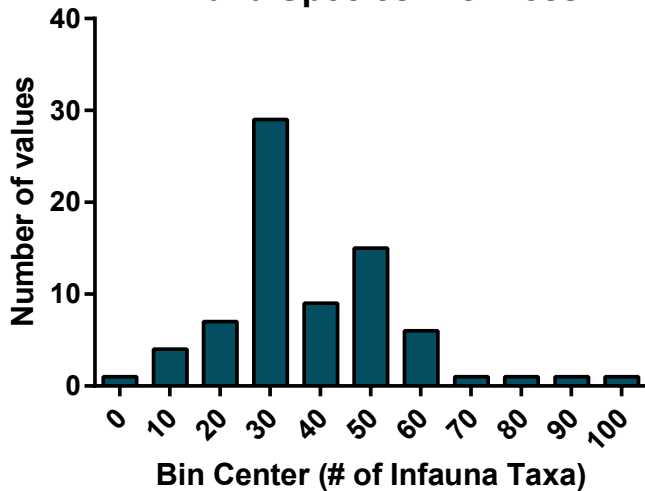
**Histogram of All Parent Data_Raw
Benthic SQO Scores**



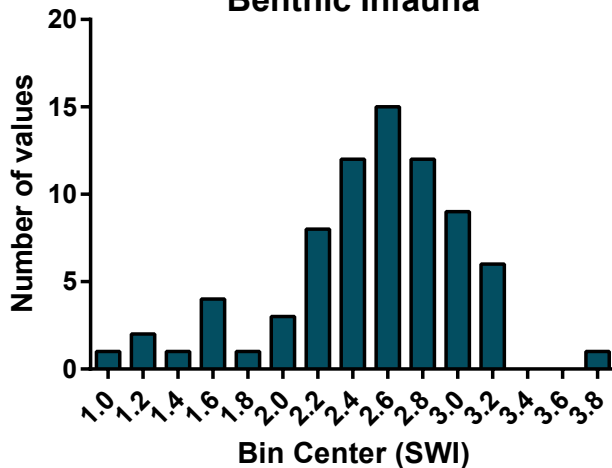
**Histogram of All Parent Data_Raw
Infauna Abundance**



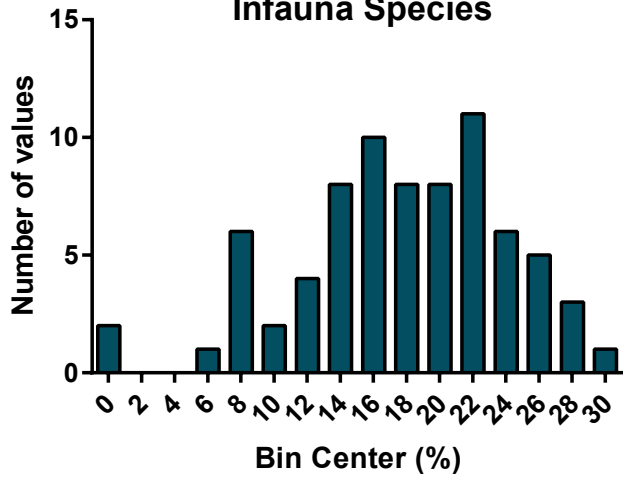
**Histogram of All Parent Data_Raw
Infauna Species Richness**



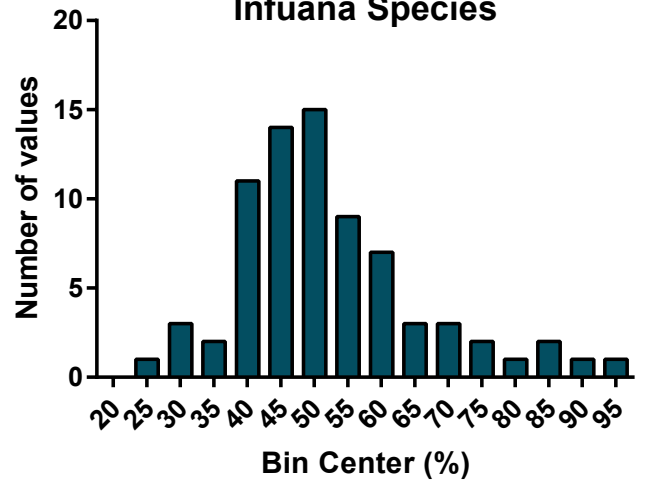
**Histogram of All Parent Data_Raw
Shannon-Weiner Index for
Benthic Infauna**



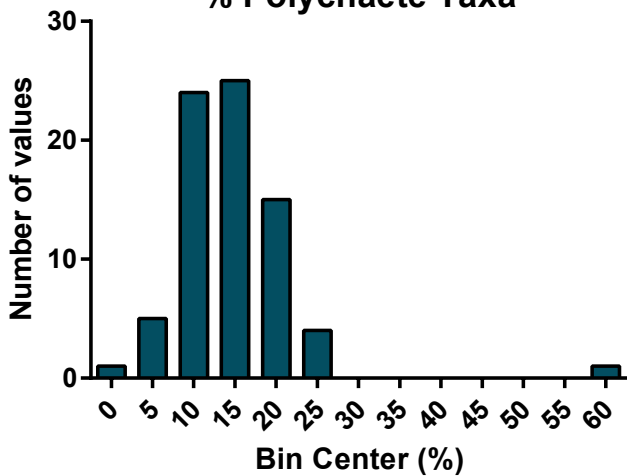
**Histogram of All Parent Data_Raw
% Sensitive Benthic
Infauna Species**



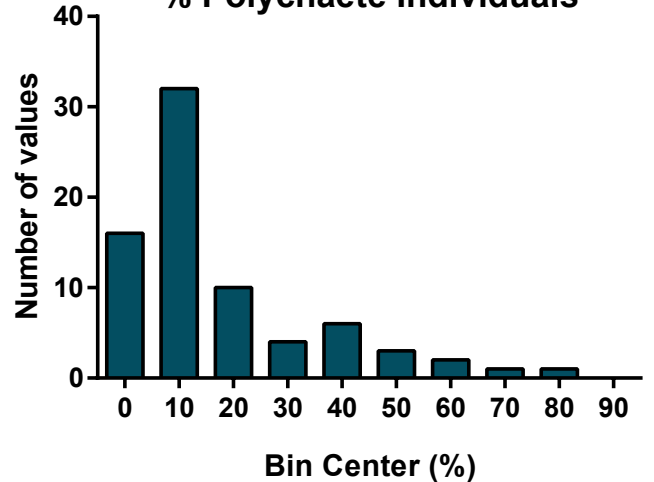
**Histogram of All Parent Data_Raw
% Top 3 Dominant Benthic
Infauna Species**



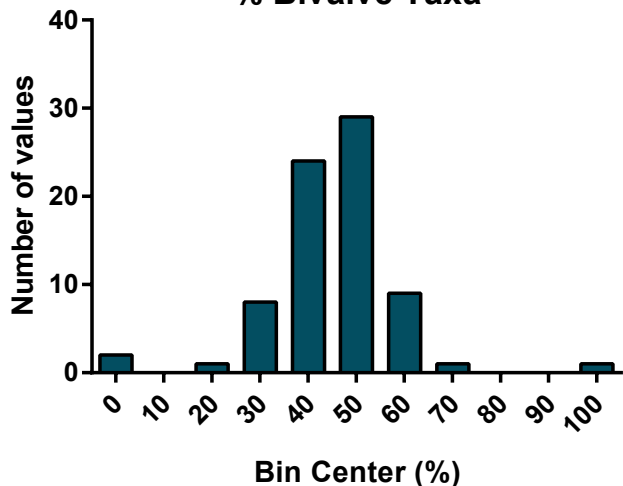
**Histogram of All Parent Data_Raw
% Polychaete Taxa**



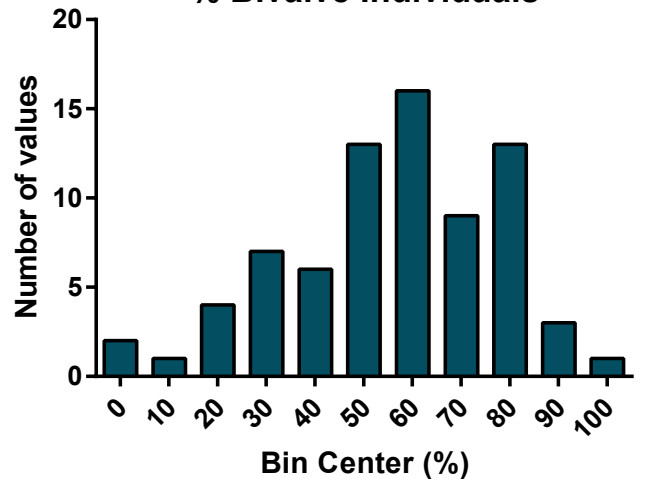
**Histogram of All Parent Data_Raw
% Polychaete Individuals**



**Histogram of All Parent Data_Raw
% Bivalve Taxa**

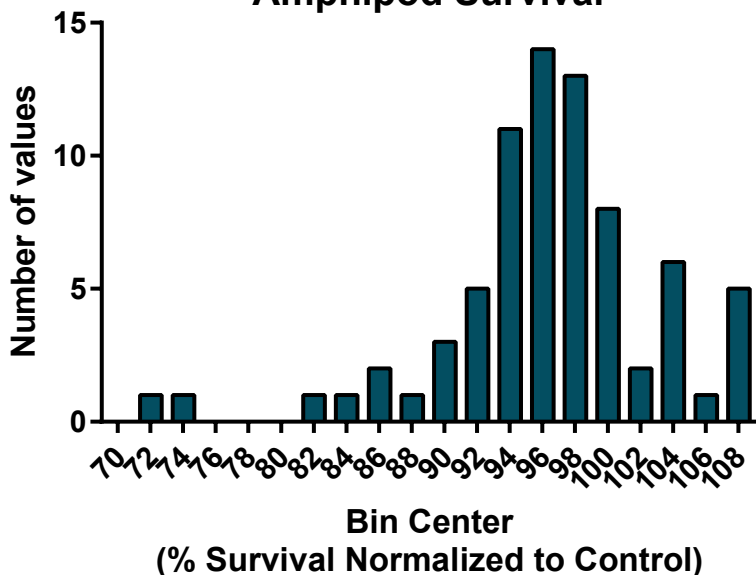


**Histogram of All Parent Data_Raw
% Bivalve Individuals**

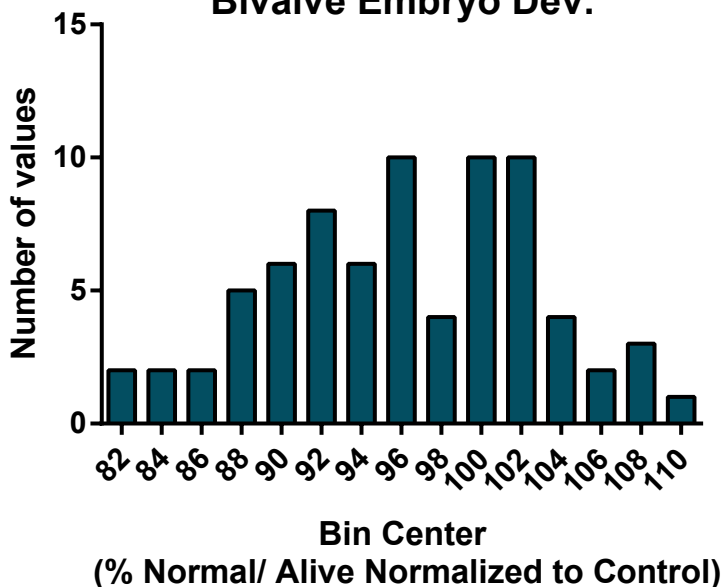


Toxicity

Histogram of All Parent Data_Raw Amphipod Survival



Histogram of All Parent Data_Raw Bivalve Embryo Dev.



Spearman Rank Correlations

Untransformed Data

RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Untransformed Data

	<i>Ammonia</i>	<i>Total N %</i>	<i>TOC %</i>	<i>AVS</i>	<i>SEM Sum</i>	<i>SEM:AVS</i>	<i>SEM:AVS/ fOC</i>	<i>CSI</i>	<i>ER-L Exceed.</i>
Ammonia	1.000								
Total N %	-0.185	1.000							
TOC %	0.296	0.147	1.000						
AVS	0.406	-0.043	0.299	1.000					
SEM Sum	0.133	0.076	0.202	-0.084	1.000				
SEM:AVS	-0.252	-0.065	-0.093	-0.291	0.240	1.000			
SEM:AVS/ fOC	-0.193	-0.002	-0.255	-0.569	0.359	0.364	1.000		
CSI	0.115	0.017	0.154	-0.075	0.770	0.193	0.379	1.000	
ER-L Exceed.	0.109	0.043	0.175	0.025	0.798	0.100	0.321	0.908	1.000
ER-M Exceed.	-0.094	0.077	0.126	-0.015	0.461	0.267	0.163	0.560	0.558
ERM-Q	-0.005	0.118	0.160	-0.047	0.672	0.270	0.275	0.861	0.854
Al	0.427	0.144	0.300	0.144	0.745	0.042	0.074	0.589	0.686
Sb	0.114	-0.049	0.246	0.051	0.517	-0.034	0.124	0.741	0.731
As	0.306	0.114	0.331	0.178	0.750	0.213	0.138	0.666	0.744
Ba	0.286	-0.026	0.338	0.328	0.626	-0.012	0.046	0.520	0.547
Be	0.490	0.099	0.394	0.234	0.705	-0.019	0.032	0.607	0.686
Cd	0.368	0.032	0.412	0.386	0.455	-0.207	-0.152	0.620	0.648
Cr	0.271	0.123	0.301	0.121	0.820	0.067	0.148	0.700	0.812
Cu	0.110	0.039	0.231	0.086	0.875	0.168	0.224	0.700	0.740
Fe	0.425	0.164	0.356	0.201	0.737	0.081	0.054	0.598	0.687
Pb	0.124	0.133	0.202	-0.056	0.742	0.154	0.293	0.860	0.911
Hg	-0.125	0.005	-0.045	-0.192	0.565	0.610	0.375	0.584	0.553
Ni	0.386	0.117	0.425	0.334	0.748	-0.040	-0.013	0.625	0.722
Se	0.435	-0.025	0.479	0.436	0.561	-0.126	-0.126	0.477	0.518
Ag	0.148	0.226	0.035	-0.105	0.684	0.038	0.288	0.695	0.802
P	0.377	0.031	0.465	0.332	0.710	0.035	-0.001	0.531	0.600
Zn	0.231	0.105	0.273	0.062	0.887	0.093	0.201	0.762	0.805
TPAH	-0.102	0.156	0.116	-0.102	0.396	0.132	0.263	0.613	0.575
LPAH	-0.018	-0.101	0.124	-0.095	0.246	0.050	0.073	0.224	0.217
HPAH	-0.187	-0.097	0.056	-0.139	0.138	0.154	0.101	0.254	0.231
TPCBs	-0.111	0.250	0.084	-0.018	0.291	0.086	0.060	0.410	0.481
TDDTs	-0.010	-0.070	0.009	-0.033	0.068	-0.041	0.215	0.497	0.417
T Chlordanes	-0.079	0.020	0.077	-0.042	-0.038	-0.046	0.043	0.422	0.318
T Pyrethroids	-0.031	0.104	0.052	-0.016	-0.054	-0.035	0.024	0.264	0.189
T PBDEs	0.081	-0.242	0.072	-0.090	0.371	0.061	0.224	0.661	0.633
% Fines	0.380	0.113	0.439	0.245	0.711	0.078	0.088	0.627	0.621
BRI	-0.011	0.043	0.050	-0.157	0.541	0.083	0.193	0.491	0.461

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Untransformed Data

	<i>Ammonia</i>	<i>Total N %</i>	<i>TOC %</i>	<i>AVS</i>	<i>SEM Sum</i>	<i>SEM:AVS</i>	<i>SEM:AVS/ fOC</i>	<i>CSI</i>	<i>ER-L Exceed.</i>
IBI	0.014	0.048	0.154	0.193	0.358	0.036	-0.184	0.158	0.244
RBI	-0.244	-0.015	-0.195	-0.268	-0.460	-0.075	0.123	-0.462	-0.422
RIVPACS	-0.006	-0.076	-0.103	-0.176	-0.253	-0.187	0.204	-0.128	-0.147
Integ. SQO Benthic	0.060	-0.002	0.099	0.222	0.407	0.087	-0.155	0.358	0.367
Infauna Abund.	0.214	-0.115	0.147	0.170	-0.308	-0.151	-0.122	-0.270	-0.298
Taxa Richness - SQO	0.109	-0.149	0.075	-0.003	-0.357	-0.133	0.040	-0.221	-0.284
Site Abund.	0.212	-0.114	0.153	0.170	-0.302	-0.150	-0.122	-0.267	-0.293
Taxa Richness - Total	0.107	-0.159	0.084	0.019	-0.361	-0.135	0.021	-0.223	-0.284
SWI	-0.008	-0.094	0.009	-0.207	-0.219	-0.034	0.187	-0.066	-0.130
% Sensitive	-0.076	-0.097	-0.169	0.028	-0.434	-0.051	0.030	-0.296	-0.300
% Dominant	0.048	0.146	0.101	0.223	0.074	-0.023	-0.193	-0.025	0.023
% Dom. 3 species	0.025	0.118	0.044	0.260	0.148	0.025	-0.186	0.000	0.035
% Polychaete taxa	-0.083	-0.018	-0.127	-0.113	0.270	0.046	0.151	0.116	0.224
% Polychaete indiv.	0.002	-0.146	-0.135	-0.124	0.122	-0.024	0.107	0.072	0.109
% Bivalve taxa	0.029	0.226	0.037	0.239	-0.115	-0.048	-0.134	-0.002	-0.029
% Bivalve indiv.	0.026	0.296	0.013	0.092	0.092	-0.136	-0.013	0.126	0.128
Amphipod Surv	-0.092	0.044	-0.239	0.035	-0.216	-0.033	0.067	-0.230	-0.212

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
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	<i>ER-M Exceed.</i>	<i>ERM-Q</i>	<i>Al</i>	<i>Sb</i>	<i>As</i>	<i>Ba</i>	<i>Be</i>	<i>Cd</i>	<i>Cr</i>	<i>Cu</i>
Ammonia										
Total N %										
TOC %										
AVS										
SEM Sum										
SEM:AVS										
SEM:AVS/ fOC										
CSI										
ER-L Exceed.										
ER-M Exceed.	1.000									
ERM-Q	0.785	1.000								
Al	0.257	0.509	1.000							
Sb	0.279	0.609	0.474	1.000						
As	0.483	0.660	0.859	0.538	1.000					
Ba	0.364	0.426	0.694	0.363	0.690	1.000				
Be	0.264	0.504	0.947	0.565	0.900	0.718	1.000			
Cd	0.328	0.569	0.499	0.667	0.525	0.490	0.586	1.000		
Cr	0.416	0.650	0.904	0.539	0.877	0.733	0.854	0.549	1.000	
Cu	0.625	0.667	0.643	0.467	0.713	0.715	0.635	0.435	0.773	1.000
Fe	0.294	0.534	0.981	0.492	0.891	0.713	0.937	0.529	0.910	0.655
Pb	0.550	0.867	0.707	0.757	0.796	0.457	0.709	0.594	0.803	0.642
Hg	0.625	0.740	0.362	0.309	0.561	0.249	0.293	0.122	0.466	0.509
Ni	0.360	0.573	0.895	0.527	0.868	0.824	0.903	0.662	0.923	0.755
Se	0.258	0.377	0.617	0.422	0.697	0.742	0.741	0.666	0.656	0.601
Ag	0.301	0.681	0.693	0.589	0.599	0.308	0.596	0.481	0.768	0.511
P	0.398	0.499	0.714	0.360	0.822	0.759	0.769	0.603	0.788	0.712
Zn	0.517	0.682	0.750	0.600	0.752	0.609	0.741	0.647	0.818	0.809
TPAH	0.553	0.727	0.224	0.420	0.404	0.240	0.216	0.337	0.380	0.366
LPAH	0.000	0.179	0.186	0.410	0.123	0.091	0.156	0.150	0.229	0.163
HPAH	0.096	0.220	-0.025	0.489	0.053	-0.016	-0.033	0.133	0.108	0.092
TPCBs	0.586	0.690	0.188	0.307	0.331	0.137	0.171	0.322	0.327	0.324
TDDTs	0.373	0.570	-0.008	0.375	0.079	0.017	0.058	0.430	0.074	0.099
T Chlordanes	0.362	0.493	-0.083	0.321	-0.020	-0.040	-0.015	0.378	-0.031	-0.017
T Pyrethroids	0.317	0.412	-0.084	0.068	-0.043	-0.050	-0.042	0.233	-0.037	-0.018
T PBDEs	0.186	0.545	0.349	0.794	0.333	0.203	0.369	0.500	0.416	0.301
% Fines	0.337	0.528	0.814	0.495	0.869	0.725	0.869	0.552	0.819	0.695
BRI	0.318	0.458	0.408	0.394	0.346	0.363	0.419	0.242	0.448	0.539

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Spearman Rank (r values) on Untransformed Data

	<i>ER-M Exceed.</i>	<i>ERM-Q</i>	<i>Al</i>	<i>Sb</i>	<i>As</i>	<i>Ba</i>	<i>Be</i>	<i>Cd</i>	<i>Cr</i>	<i>Cu</i>
IBI	0.130	0.172	0.323	0.152	0.242	0.447	0.294	0.119	0.372	0.452
RBI	-0.221	-0.361	-0.491	-0.365	-0.446	-0.407	-0.524	-0.337	-0.446	-0.485
RIVPACS	-0.113	-0.109	-0.264	-0.063	-0.247	-0.261	-0.261	0.023	-0.290	-0.361
Integ. SQO Benthic Infauna Abund.	0.244	0.348	0.418	0.300	0.355	0.342	0.430	0.229	0.403	0.465
Taxa Richness - SQO	-0.150	-0.252	-0.179	-0.140	-0.157	-0.075	-0.116	0.014	-0.250	-0.349
Site Abund.	-0.154	-0.239	-0.363	-0.158	-0.298	-0.250	-0.334	-0.003	-0.367	-0.437
Taxa Richness - Total SWI	-0.149	-0.249	-0.178	-0.137	-0.155	-0.072	-0.112	0.017	-0.245	-0.341
% Sensitive	-0.148	-0.236	-0.369	-0.154	-0.294	-0.244	-0.331	0.006	-0.368	-0.434
% Dominant	-0.030	-0.024	-0.307	0.017	-0.184	-0.274	-0.274	0.001	-0.286	-0.328
% Dom. 3 species	-0.150	-0.270	-0.408	-0.305	-0.319	-0.465	-0.370	-0.185	-0.423	-0.426
% Polychaete taxa	-0.124	-0.080	0.214	-0.012	0.075	0.134	0.218	0.014	0.089	0.110
% Polychaete indiv.	-0.044	-0.048	0.221	-0.024	0.103	0.239	0.231	0.039	0.137	0.264
% Bivalve taxa	-0.056	0.063	0.223	0.148	0.138	0.099	0.139	-0.083	0.202	0.291
% Bivalve indiv.	-0.005	-0.003	0.166	0.152	0.107	0.145	0.119	0.065	0.115	0.159
Amphipod Surv	0.148	0.132	-0.032	-0.145	-0.013	0.051	-0.027	0.137	0.014	-0.029
	-0.035	0.146	0.140	0.012	0.059	0.096	0.108	0.150	0.185	0.012
	-0.236	-0.299	-0.213	-0.227	-0.221	-0.162	-0.216	-0.253	-0.161	-0.172

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Untransformed Data

	<i>Fe</i>	<i>Pb</i>	<i>Hg</i>	<i>Ni</i>	<i>Se</i>	<i>Ag</i>	<i>P</i>	<i>Zn</i>	<i>TPAH</i>	<i>LPAH</i>
Ammonia										
Total N %										
TOC %										
AVS										
SEM Sum										
SEM:AVS										
SEM:AVS/ fOC										
CSI										
ER-L Exceed.										
ER-M Exceed.										
ERM-Q										
Al										
Sb										
As										
Ba										
Be										
Cd										
Cr										
Cu										
Fe	1.000									
Pb	0.717	1.000								
Hg	0.394	0.664	1.000							
Ni	0.916	0.679	0.325	1.000						
Se	0.638	0.461	0.120	0.801	1.000					
Ag	0.670	0.832	0.479	0.611	0.299	1.000				
P	0.756	0.552	0.314	0.867	0.874	0.399	1.000			
Zn	0.761	0.749	0.418	0.770	0.603	0.670	0.743	1.000		
TPAH	0.253	0.645	0.664	0.301	0.197	0.514	0.272	0.356	1.000	
LPAH	0.186	0.312	0.154	0.156	0.088	0.289	0.103	0.193	0.077	1.000
HPAH	0.015	0.277	0.185	0.015	-0.005	0.211	-0.001	0.140	0.181	0.538
TCBs	0.220	0.540	0.540	0.285	0.192	0.467	0.232	0.297	0.693	0.069
TDDTs	-0.011	0.362	0.126	0.073	0.042	0.221	0.027	0.189	0.338	-0.005
T Chlordanes	-0.083	0.266	-0.002	-0.024	-0.031	0.131	-0.062	0.092	0.233	0.028
T Pyrethroids	-0.091	0.160	-0.032	-0.030	-0.022	0.083	-0.009	0.051	0.159	-0.018
T PBDEs	0.342	0.609	0.252	0.332	0.169	0.534	0.143	0.461	0.277	0.253
% Fines	0.844	0.646	0.386	0.886	0.768	0.491	0.824	0.705	0.304	0.133
BRI	0.351	0.428	0.310	0.400	0.265	0.412	0.218	0.470	0.174	0.147

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Spearman Rank (r values) on Untransformed Data

	<i>Fe</i>	<i>Pb</i>	<i>Hg</i>	<i>Ni</i>	<i>Se</i>	<i>Ag</i>	<i>P</i>	<i>Zn</i>	<i>TPAH</i>	<i>LPAH</i>
IBI	0.281	0.167	0.127	0.388	0.255	0.198	0.270	0.288	0.023	0.094
RBI	-0.466	-0.381	-0.257	-0.491	-0.365	-0.326	-0.336	-0.428	-0.126	-0.113
RIVPACS	-0.239	-0.112	-0.128	-0.279	-0.197	-0.098	-0.184	-0.186	0.026	-0.001
Integ. SQO Benthic	0.368	0.335	0.252	0.413	0.259	0.303	0.209	0.355	0.095	0.105
Infauna Abund.	-0.148	-0.220	-0.238	-0.211	0.038	-0.341	-0.008	-0.168	-0.141	-0.077
Taxa Richness - SQO	-0.311	-0.246	-0.239	-0.344	-0.080	-0.308	-0.092	-0.198	0.048	-0.012
Site Abund.	-0.148	-0.217	-0.234	-0.205	0.044	-0.344	-0.004	-0.167	-0.149	-0.075
Taxa Richness - Total	-0.315	-0.246	-0.236	-0.340	-0.063	-0.320	-0.080	-0.204	0.045	-0.021
SWI	-0.254	-0.059	-0.026	-0.266	-0.154	-0.087	-0.132	-0.177	0.254	0.079
% Sensitive	-0.381	-0.287	-0.202	-0.414	-0.250	-0.306	-0.320	-0.385	-0.131	-0.246
% Dominant	0.174	-0.027	-0.072	0.161	0.113	0.006	0.060	0.083	-0.199	-0.083
% Dom. 3 species	0.171	-0.049	-0.051	0.229	0.209	-0.030	0.135	0.111	-0.238	-0.095
% Polychaete taxa	0.195	0.161	0.090	0.148	-0.056	0.268	0.003	0.176	-0.007	0.089
% Polychaete indiv.	0.155	0.067	0.006	0.128	-0.025	0.135	-0.005	0.126	-0.019	-0.043
% Bivalve taxa	-0.019	-0.052	-0.072	0.099	0.103	-0.008	0.089	-0.053	-0.059	-0.146
% Bivalve indiv.	0.119	0.129	-0.068	0.189	0.127	0.242	0.133	0.069	-0.004	0.106
Amphipod Surv	-0.227	-0.327	-0.314	-0.175	-0.203	-0.194	-0.165	-0.212	-0.350	-0.146

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	<i>HPAH</i>	<i>TPCBs</i>	<i>TDDTs</i>	<i>T</i> <i>Chlordanes</i>	<i>T</i> <i>Pyrethroids</i>	<i>T</i> <i>PBDEs</i>	<i>% Fines</i>	<i>BRI</i>	<i>IBI</i>
Ammonia									
Total N %									
TOC %									
AVS									
SEM Sum									
SEM:AVS									
SEM:AVS/ fOC									
CSI									
ER-L Exceed.									
ER-M Exceed.									
ERM-Q									
Al									
Sb									
As									
Ba									
Be									
Cd									
Cr									
Cu									
Fe									
Pb									
Hg									
Ni									
Se									
Ag									
P									
Zn									
TPAH									
LPAH									
HPAH	1.000								
TPCBs	0.199	1.000							
TDDTs	0.048	0.198	1.000						
T Chlordanes	0.106	0.141	0.885	1.000					
T Pyrethroids	-0.046	0.118	0.789	0.882	1.000				
T PBDEs	0.359	0.114	0.621	0.493	0.273	1.000			
% Fines	-0.030	0.167	0.060	-0.024	-0.021	0.284	1.000		
BRI	0.115	0.250	0.172	0.112	0.084	0.397	0.388	1.000	

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Untransformed Data

	<i>HPAH</i>	<i>TCBs</i>	<i>TDDTs</i>	<i>T</i> <i>Chlordanes</i>	<i>T</i> <i>Pyrethroids</i>	<i>T PBDEs</i>	<i>% Fines</i>	<i>BRI</i>	<i>IBI</i>
IBI	0.074	0.074	-0.125	-0.134	-0.097	0.105	0.284	0.405	1.000
RBI	-0.045	-0.157	-0.062	-0.016	0.027	-0.292	-0.484	-0.599	-0.513
RIVPACS	-0.062	-0.024	0.163	0.143	0.110	-0.006	-0.242	-0.397	-0.578
Integ. SQO Benthic	0.055	0.185	0.052	0.034	0.010	0.255	0.367	0.705	0.605
Infauna Abund.	-0.035	-0.133	-0.046	-0.005	0.017	-0.192	-0.173	-0.411	-0.306
Taxa Richness - SQO	0.113	-0.111	0.054	0.080	0.089	-0.170	-0.293	-0.643	-0.536
Site Abund.	-0.033	-0.136	-0.043	-0.006	0.016	-0.191	-0.169	-0.401	-0.294
Taxa Richness - Total	0.106	-0.108	0.055	0.083	0.092	-0.175	-0.287	-0.645	-0.528
SWI	0.160	0.077	0.166	0.169	0.125	-0.080	-0.204	-0.491	-0.496
% Sensitive	-0.162	-0.108	0.033	0.045	0.068	-0.224	-0.381	-0.430	-0.746
% Dominant	-0.166	-0.157	-0.132	-0.119	-0.066	0.026	0.108	0.233	0.306
% Dom. 3 species	-0.171	-0.134	-0.147	-0.152	-0.096	-0.005	0.186	0.373	0.477
% Polychaete taxa	0.007	0.036	-0.154	-0.200	-0.268	0.175	0.103	0.243	0.291
% Polychaete indiv.	0.019	-0.020	-0.097	-0.155	-0.266	0.209	0.089	0.147	0.121
% Bivalve taxa	-0.173	0.052	0.343	0.347	0.438	-0.015	0.064	-0.055	0.031
% Bivalve indiv.	-0.105	0.048	0.244	0.258	0.334	0.051	0.161	0.025	0.075
Amphipod Surv	-0.159	-0.276	-0.021	-0.038	0.019	-0.068	-0.200	0.036	-0.001

r values greater than ± 0.4 are highlighted for reference indicating relatively strong relationships based on the number of comparisons (n=75). Highlighted values do not denote statist. signif. which may occur at values $>$ or $<$ than those highlighted.

RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Untransformed Data

	<i>RBI</i>	<i>RIVPACS</i>	<i>Integ. SQO Benthic</i>	<i>Infauna Abund.</i>	<i>Taxa Richness - SQO</i>	<i>Site Abund.</i>	<i>Taxa Richness - Total</i>	<i>SWI</i>	<i>% Sensitive</i>	<i>% Dominant</i>
IBI										
RBI	1.000									
RIVPACS	0.641	1.000								
Integ. SQO Benthic	-0.854	-0.707	1.000							
Infauna Abund.	0.308	0.179	-0.379	1.000						
Taxa Richness - SQO	0.584	0.552	-0.703	0.685	1.000					
Site Abund.	0.299	0.166	-0.371	0.998	0.671	1.000				
Taxa Richness - Total	0.563	0.525	-0.689	0.712	0.996	0.700	1.000			
SWI	0.535	0.548	-0.612	0.231	0.670	0.220	0.666	1.000		
% Sensitive	0.417	0.425	-0.434	0.208	0.350	0.205	0.357	0.217	1.000	
% Dominant	-0.390	-0.327	0.377	0.000	-0.313	0.010	-0.305	-0.742	-0.090	1.000
% Dom. 3 species	-0.507	-0.480	0.546	-0.129	-0.526	-0.117	-0.515	-0.872	-0.153	0.872
% Polychaete taxa	-0.210	-0.345	0.295	-0.360	-0.478	-0.373	-0.500	-0.309	-0.282	0.061
% Polychaete indiv.	-0.091	0.010	0.104	-0.293	-0.262	-0.314	-0.291	-0.153	-0.148	-0.082
% Bivalve taxa	0.066	0.174	-0.087	-0.174	-0.047	-0.166	-0.042	0.007	0.082	-0.001
% Bivalve indiv.	-0.002	0.151	-0.009	-0.198	-0.104	-0.189	-0.103	-0.009	-0.040	0.046
Amphipod Surv	-0.048	-0.166	0.093	-0.098	-0.220	-0.096	-0.224	-0.301	0.091	0.195

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**RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Untransformed Data**

	% Dom. 3 species	% Polychaete taxa	% Polychaete indiv.	% Bivalve taxa	% Bivalve indiv.
IBI					
RBI					
RIVPACS					
Integ. SQO Benthic Infauna Abund.					
Taxa Richness - SQO Site Abund.					
Taxa Richness - Total SWI					
% Sensitive					
% Dominant					
% Dom. 3 species	1.000				
% Polychaete taxa	0.218	1.000			
% Polychaete indiv.	0.107	0.659	1.000		
% Bivalve taxa	0.008	-0.512	-0.381	1.000	
% Bivalve indiv.	-0.019	-0.341	-0.522	0.704	1.000
Amphipod Surv	0.281	0.197	0.065	-0.113	0.012

r values greater than ± 0.4 are highlighted for reference indicating relatively strong relationships based on the number of comparisons (n=75). Highlighted values do not denote statist. signif. which may occur at values $>$ or $<$ than those highlighted.

Transformed Data to Normalize Distributions

RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>Ammonia</i>	<i>Total N %</i>	<i>TOC %</i>	<i>AVS</i>	<i>SEM Sum</i>	<i>SEM:AVS</i>	<i>SEM:AVS/ fOC</i>	<i>CSI</i>	<i>ER-L Exceed.</i>
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>None</i>	<i>Log</i>	<i>None</i>
Ammonia	1.000								
Total N %	-0.206	1.000							
TOC %	0.284	0.391	1.000						
AVS	0.448	0.079	0.173	1.000					
SEM Sum	0.295	0.132	0.243	0.337	1.000				
SEM:AVS	-0.376	-0.019	-0.131	-0.812	0.228	1.000			
SEM:AVS/ fOC	-0.190	-0.063	-0.238	-0.418	0.361	0.669	1.000		
CSI	0.298	0.058	0.258	0.128	0.762	0.243	0.358	1.000	
ER-L Exceed.	0.212	0.073	0.236	0.172	0.726	0.180	0.321	0.892	1.000
ER-M Exceed.	0.044	0.124	0.167	0.020	0.374	0.170	0.163	0.525	0.558
ERM-Q	0.266	0.107	0.255	0.226	0.830	0.219	0.323	0.919	0.902
Al	0.406	0.167	0.411	0.473	0.745	-0.057	0.068	0.604	0.622
Sb	0.332	0.073	0.295	0.412	0.719	-0.027	0.138	0.809	0.825
As	0.316	0.216	0.455	0.398	0.765	0.027	0.152	0.679	0.697
Ba	0.407	0.083	0.379	0.486	0.637	-0.149	0.074	0.550	0.532
Be	0.470	0.193	0.492	0.540	0.745	-0.139	0.037	0.633	0.635
Cd	0.517	0.003	0.328	0.654	0.563	-0.367	-0.162	0.582	0.591
Cr	0.359	0.122	0.379	0.468	0.805	-0.019	0.120	0.681	0.723
Cu	0.284	0.100	0.227	0.435	0.939	0.098	0.263	0.758	0.723
Fe	0.394	0.190	0.456	0.460	0.725	-0.056	0.063	0.595	0.612
Pb	0.260	0.129	0.227	0.291	0.837	0.186	0.317	0.817	0.844
Hg	0.034	0.033	-0.036	0.016	0.788	0.481	0.486	0.683	0.686
Ni	0.433	0.143	0.462	0.586	0.729	-0.190	-0.005	0.612	0.631
Se	0.531	0.085	0.525	0.612	0.665	-0.286	-0.085	0.598	0.564
Ag	0.117	0.058	-0.085	0.433	0.735	0.087	0.224	0.484	0.533
P	0.483	0.146	0.539	0.457	0.694	-0.123	0.027	0.599	0.592
Zn	0.373	0.163	0.337	0.477	0.922	0.039	0.195	0.772	0.764
TPAH	0.138	-0.055	-0.022	0.066	0.544	0.248	0.281	0.651	0.613
LPAH	-0.138	-0.043	0.066	-0.223	0.058	0.235	0.151	0.214	0.238
HPAH	-0.164	-0.106	-0.006	-0.262	-0.027	0.238	0.151	0.146	0.179
TPCBs	0.004	-0.131	-0.240	-0.016	0.479	0.325	0.252	0.532	0.533
TDDTs	0.174	-0.031	0.163	0.107	0.137	-0.096	0.165	0.429	0.353
T Chlordanes	0.051	0.071	0.102	-0.033	0.080	0.005	0.230	0.516	0.465
T Pyrethroids	0.143	0.077	0.073	0.130	0.201	-0.040	0.236	0.409	0.333
T PBDEs	0.415	-0.192	0.269	0.146	0.429	0.039	0.122	0.596	0.513
% Fines	0.369	0.227	0.464	0.514	0.726	-0.082	0.103	0.589	0.538

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>Ammonia</i>	<i>Total N %</i>	<i>TOC %</i>	<i>AVS</i>	<i>SEM Sum</i>	<i>SEM:AVS</i>	<i>SEM:AVS/ fOC</i>	<i>CSI</i>	<i>ER-L Exceed.</i>
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>None</i>	<i>Log</i>	<i>None</i>
BRI	0.150	0.073	0.088	0.142	0.486	0.116	0.227	0.483	0.451
IBI	0.176	0.183	0.202	0.084	0.308	0.017	-0.152	0.210	0.240
RBI	-0.271	-0.107	-0.190	-0.304	-0.345	0.188	0.123	-0.370	-0.409
RIVPACS	-0.099	-0.003	-0.018	-0.083	-0.040	0.121	0.191	-0.081	-0.071
Integ. SQO Benthic	0.262	0.117	0.161	0.247	0.323	-0.133	-0.132	0.392	0.376
Infauna Abund.	0.074	-0.137	-0.045	0.004	-0.331	-0.149	-0.017	-0.322	-0.373
Taxa Richness - SQO	-0.013	-0.208	-0.073	-0.169	-0.347	0.005	0.064	-0.248	-0.305
Site Abund.	0.077	-0.144	-0.053	0.008	-0.323	-0.153	-0.009	-0.321	-0.368
Taxa Richness - Total	-0.009	-0.217	-0.076	-0.157	-0.347	-0.009	0.055	-0.250	-0.307
SWI	-0.058	-0.238	-0.102	-0.224	-0.137	0.198	0.206	-0.090	-0.130
% Sensitive	-0.114	-0.079	-0.154	-0.159	-0.296	0.035	0.021	-0.202	-0.218
% Dominant	0.034	0.249	0.164	0.120	-0.010	-0.207	-0.136	0.021	0.061
% Dom. 3 species	0.035	0.270	0.129	0.202	0.056	-0.233	-0.152	0.036	0.055
% Polychaete taxa	-0.145	-0.019	-0.156	-0.129	0.167	0.254	0.197	0.050	0.140
% Polychaete indiv.	-0.064	-0.080	-0.169	0.001	0.274	0.227	0.215	0.070	0.107
% Bivalve taxa	-0.071	0.119	0.030	-0.086	-0.110	0.040	-0.018	-0.051	-0.124
% Bivalve indiv.	-0.062	0.207	0.058	-0.041	0.187	0.154	0.127	0.136	0.150
Amphipod Surv	-0.110	0.092	-0.277	0.042	-0.149	-0.123	0.083	-0.210	-0.206

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>ER-M Exceed.</i>	<i>ERM-Q</i>	<i>Al</i>	<i>Sb</i>	<i>As</i>	<i>Ba</i>	<i>Be</i>	<i>Cd</i>	<i>Cr</i>	<i>Cu</i>
<i>Transform</i>	<i>None</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>
Ammonia										
Total N %										
TOC %										
AVS										
SEM Sum										
SEM:AVS										
SEM:AVS/ fOC										
CSI										
ER-L Exceed.										
ER-M Exceed.	1.000									
ERM-Q	0.633	1.000								
Al	0.229	0.706	1.000							
Sb	0.340	0.810	0.711	1.000						
As	0.388	0.780	0.893	0.758	1.000					
Ba	0.299	0.645	0.831	0.612	0.777	1.000				
Be	0.246	0.713	0.970	0.773	0.925	0.834	1.000			
Cd	0.281	0.647	0.657	0.725	0.621	0.650	0.714	1.000		
Cr	0.331	0.798	0.939	0.747	0.907	0.841	0.922	0.708	1.000	
Cu	0.457	0.844	0.768	0.709	0.774	0.734	0.761	0.606	0.841	1.000
Fe	0.244	0.704	0.983	0.700	0.914	0.850	0.960	0.638	0.934	0.761
Pb	0.436	0.903	0.758	0.860	0.832	0.587	0.767	0.605	0.817	0.779
Hg	0.415	0.794	0.545	0.566	0.609	0.361	0.476	0.301	0.618	0.730
Ni	0.287	0.722	0.936	0.732	0.892	0.895	0.952	0.767	0.959	0.800
Se	0.264	0.631	0.787	0.710	0.822	0.804	0.871	0.804	0.817	0.709
Ag	0.195	0.648	0.668	0.611	0.587	0.443	0.605	0.509	0.698	0.712
P	0.341	0.683	0.779	0.627	0.860	0.812	0.833	0.685	0.844	0.730
Zn	0.428	0.868	0.856	0.795	0.848	0.748	0.862	0.739	0.895	0.922
TPAH	0.403	0.679	0.318	0.581	0.415	0.361	0.325	0.374	0.459	0.517
LPAH	0.041	0.159	-0.055	0.192	-0.002	-0.076	-0.067	0.007	0.027	0.025
HPAH	0.023	0.080	-0.162	0.061	-0.098	-0.185	-0.189	-0.044	-0.058	-0.055
TCBs	0.301	0.571	0.343	0.383	0.248	0.219	0.240	0.215	0.418	0.522
TDDTs	0.372	0.340	-0.020	0.360	0.116	0.248	0.105	0.352	0.063	0.204
T Chlordanes	0.251	0.368	-0.021	0.419	0.076	0.088	0.067	0.243	0.011	0.084
T Pyrethroids	0.186	0.367	0.104	0.431	0.215	0.204	0.218	0.290	0.156	0.227
T PBDEs	0.148	0.515	0.460	0.580	0.420	0.480	0.484	0.385	0.478	0.445
% Fines	0.267	0.687	0.854	0.696	0.899	0.770	0.902	0.650	0.868	0.777

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>ER-M Exceed.</i>	<i>ERM-Q</i>	<i>Al</i>	<i>Sb</i>	<i>As</i>	<i>Ba</i>	<i>Be</i>	<i>Cd</i>	<i>Cr</i>	<i>Cu</i>
<i>Transform</i>	<i>None</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>
BRI	0.315	0.469	0.393	0.413	0.313	0.286	0.402	0.316	0.400	0.475
IBI	0.136	0.261	0.338	0.189	0.232	0.308	0.292	0.182	0.346	0.317
RBI	-0.178	-0.346	-0.360	-0.366	-0.305	-0.286	-0.386	-0.300	-0.346	-0.398
RIVPACS	-0.078	-0.015	-0.029	0.000	0.000	0.047	-0.044	-0.013	-0.045	-0.052
Integ. SQO Benthic	0.230	0.382	0.387	0.355	0.301	0.252	0.391	0.343	0.345	0.356
Infauna Abund.	-0.200	-0.342	-0.296	-0.220	-0.248	-0.224	-0.259	-0.079	-0.336	-0.409
Taxa Richness - SQO	-0.183	-0.293	-0.338	-0.204	-0.267	-0.230	-0.328	-0.132	-0.342	-0.413
Site Abund.	-0.197	-0.343	-0.313	-0.220	-0.256	-0.233	-0.269	-0.079	-0.342	-0.406
Taxa Richness - Total	-0.176	-0.293	-0.353	-0.200	-0.272	-0.235	-0.334	-0.126	-0.350	-0.414
SWI	-0.033	-0.063	-0.219	-0.042	-0.127	-0.180	-0.207	-0.061	-0.191	-0.206
% Sensitive	-0.101	-0.229	-0.270	-0.217	-0.227	-0.330	-0.276	-0.144	-0.282	-0.325
% Dominant	-0.090	-0.041	0.128	0.031	0.063	0.095	0.142	0.035	0.040	0.006
% Dom. 3 species	-0.040	-0.016	0.153	0.023	0.074	0.139	0.170	0.088	0.081	0.125
% Polychaete taxa	-0.044	0.072	0.096	0.049	0.060	-0.034	0.026	-0.142	0.066	0.165
% Polychaete indiv.	-0.035	0.092	0.231	0.158	0.194	0.144	0.172	0.043	0.180	0.275
% Bivalve taxa	0.119	-0.018	-0.056	-0.144	0.013	-0.004	-0.042	-0.033	-0.016	-0.054
% Bivalve indiv.	-0.013	0.195	0.216	0.083	0.189	0.147	0.179	0.051	0.265	0.197
Amphipod Surv	-0.195	-0.229	-0.222	-0.263	-0.226	-0.168	-0.229	-0.167	-0.190	-0.120

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>Fe</i>	<i>Pb</i>	<i>Hg</i>	<i>Ni</i>	<i>Se</i>	<i>Ag</i>	<i>P</i>	<i>Zn</i>	<i>TPAH</i>	<i>LPAH</i>
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>
Ammonia										
Total N %										
TOC %										
AVS										
SEM Sum										
SEM:AVS										
SEM:AVS/ fOC										
CSI										
ER-L Exceed.										
ER-M Exceed.										
ERM-Q										
Al										
Sb										
As										
Ba										
Be										
Cd										
Cr										
Cu										
Fe	1.000									
Pb	0.755	1.000								
Hg	0.549	0.830	1.000							
Ni	0.941	0.714	0.456	1.000						
Se	0.792	0.624	0.284	0.892	1.000					
Ag	0.629	0.774	0.780	0.603	0.407	1.000				
P	0.813	0.641	0.386	0.876	0.900	0.370	1.000			
Zn	0.847	0.854	0.697	0.856	0.773	0.738	0.784	1.000		
TPAH	0.338	0.685	0.654	0.363	0.336	0.532	0.351	0.513	1.000	
LPAH	-0.035	0.167	0.193	-0.054	-0.058	0.031	-0.010	0.027	0.164	1.000
HPAH	-0.132	0.060	0.164	-0.143	-0.152	-0.012	-0.091	-0.055	0.165	0.901
TCBs	0.292	0.504	0.653	0.278	0.103	0.628	0.100	0.418	0.551	0.161
TDDTs	-0.006	0.111	-0.082	0.154	0.268	-0.184	0.238	0.199	0.157	0.007
T Chlordanes	-0.009	0.255	0.054	0.030	0.102	-0.060	0.060	0.121	0.349	0.141
T Pyrethroids	0.101	0.298	0.064	0.183	0.268	0.101	0.199	0.265	0.246	0.179
T PBDEs	0.455	0.493	0.305	0.468	0.445	0.240	0.426	0.424	0.348	0.054
% Fines	0.870	0.715	0.503	0.903	0.831	0.595	0.834	0.815	0.350	-0.083

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>Fe</i>	<i>Pb</i>	<i>Hg</i>	<i>Ni</i>	<i>Se</i>	<i>Ag</i>	<i>P</i>	<i>Zn</i>	<i>TPAH</i>	<i>LPAH</i>
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>
BRI	0.305	0.374	0.304	0.357	0.280	0.354	0.181	0.459	0.147	0.131
IBI	0.291	0.158	0.146	0.310	0.178	0.113	0.247	0.291	-0.015	0.037
RBI	-0.310	-0.270	-0.157	-0.353	-0.345	-0.152	-0.253	-0.364	-0.087	-0.031
RIVPACS	0.037	0.040	0.062	-0.020	-0.084	0.097	0.035	-0.010	0.011	-0.014
Integ. SQO Benthic Infauna Abund.	0.304	0.280	0.190	0.340	0.289	0.204	0.181	0.351	0.030	0.057
Taxa Richness - SQO Site Abund.	-0.258	-0.231	-0.262	-0.295	-0.148	-0.185	-0.149	-0.281	-0.127	-0.009
Taxa Richness - Total SWI	-0.273	-0.216	-0.188	-0.317	-0.212	-0.223	-0.153	-0.308	-0.010	0.077
% Sensitive	-0.276	-0.230	-0.266	-0.304	-0.147	-0.196	-0.144	-0.283	-0.129	-0.007
% Dominant	-0.287	-0.218	-0.197	-0.322	-0.203	-0.233	-0.147	-0.312	-0.006	0.071
% Dom. 3 species	-0.175	-0.019	0.059	-0.186	-0.150	-0.025	-0.104	-0.157	0.143	0.127
% Polychaete taxa	-0.234	-0.179	-0.112	-0.274	-0.267	-0.105	-0.249	-0.272	-0.025	0.072
% Polychaete indiv.	0.106	-0.063	-0.186	0.092	0.117	-0.174	0.077	0.027	-0.240	-0.119
% Bivalve taxa	0.115	-0.098	-0.189	0.149	0.173	-0.123	0.106	0.070	-0.293	-0.129
% Bivalve indiv.	0.075	0.119	0.288	-0.010	-0.122	0.196	-0.096	0.088	0.098	0.065
Amphipod Surv	0.218	0.191	0.305	0.151	0.043	0.348	0.027	0.211	0.128	-0.047
	-0.033	-0.097	-0.125	0.020	-0.011	-0.059	0.020	-0.075	-0.046	-0.131
	0.206	0.187	0.151	0.229	0.078	0.242	0.181	0.159	0.069	-0.011
	-0.240	-0.282	-0.192	-0.180	-0.224	-0.143	-0.177	-0.192	-0.247	-0.131

r values greater than ± 0.4 are highlighted for reference indicating relatively strong relationships based on the number of comparisons (n=75). Highlighted values do not denote statist. signif. which may occur at values > or < than those highlighted.

RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>HPAH</i>	<i>TPCBs</i>	<i>TDDTs</i>	<i>T</i> <i>Chlordanes</i>	<i>T</i> <i>Pyrethroids</i>	<i>T</i> <i>PBDEs</i>	<i>% Fines</i>	<i>BRI</i>	<i>IBI</i>
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>
Ammonia									
Total N %									
TOC %									
AVS									
SEM Sum									
SEM:AVS									
SEM:AVS/ fOC									
CSI									
ER-L Exceed.									
ER-M Exceed.									
ERM-Q									
Al									
Sb									
As									
Ba									
Be									
Cd									
Cr									
Cu									
Fe									
Pb									
Hg									
Ni									
Se									
Ag									
P									
Zn									
TPAH									
LPAH									
HPAH	1.000								
TPCBs	0.164	1.000							
TDDTs	0.012	-0.079	1.000						
T Chlordanes	0.158	0.150	0.657	1.000					
T Pyrethroids	0.105	0.070	0.477	0.506	1.000				
T PBDEs	-0.021	0.230	0.305	0.257	0.345	1.000			
% Fines	-0.168	0.213	0.131	0.012	0.214	0.428	1.000		

r values greater than ± 0.4 are highlighted for reference indicating relatively strong relationships based on the number of comparisons (n=75). Highlighted values do not denote statist. signif. which may occur at values $>$ or $<$ than those highlighted.

RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>HPAH</i>	<i>TPCBs</i>	<i>TDDTs</i>	<i>T</i> <i>Chlordanes</i>	<i>T</i> <i>Pyrethroids</i>	<i>T</i> <i>PBDEs</i>	<i>% Fines</i>	<i>BRI</i>	<i>IBI</i>
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>
BRI	0.049	0.352	0.174	0.122	0.327	0.292	0.315	1.000	
IBI	-0.019	0.209	0.004	-0.085	-0.002	0.208	0.198	0.414	1.000
RBI	0.022	-0.210	-0.105	-0.079	-0.166	-0.315	-0.293	-0.590	-0.462
RIVPACS	-0.022	-0.109	0.083	0.059	-0.057	0.008	0.058	-0.361	-0.356
Integ. SQO Benthic	-0.007	0.278	0.091	0.055	0.184	0.326	0.274	0.672	0.595
Infauna Abund.	0.047	-0.344	-0.028	-0.008	0.012	-0.182	-0.229	-0.504	-0.519
Taxa Richness - SQO	0.136	-0.274	0.036	0.048	-0.102	-0.147	-0.257	-0.644	-0.507
Site Abund.	0.047	-0.360	-0.007	-0.004	0.023	-0.174	-0.237	-0.500	-0.516
Taxa Richness - Total	0.127	-0.285	0.052	0.054	-0.084	-0.146	-0.260	-0.649	-0.511
SWI	0.150	-0.061	0.066	0.066	-0.060	-0.224	-0.134	-0.451	-0.365
% Sensitive	0.234	-0.115	-0.094	0.083	0.064	-0.199	-0.250	-0.357	-0.463
% Dominant	-0.167	-0.228	0.039	0.024	0.110	0.164	0.045	0.262	0.234
% Dom. 3 species	-0.173	-0.114	0.065	0.021	0.121	0.129	0.104	0.359	0.313
% Polychaete taxa	0.065	0.237	-0.311	-0.095	-0.188	-0.025	-0.003	0.154	0.030
% Polychaete indiv.	-0.054	0.188	-0.222	-0.115	-0.190	-0.012	0.164	0.179	-0.017
% Bivalve taxa	-0.106	0.016	0.140	0.063	0.093	-0.132	0.011	-0.152	-0.079
% Bivalve indiv.	-0.063	0.270	-0.011	0.014	-0.001	0.064	0.193	0.002	0.081
Amphipod Surv	-0.034	-0.172	-0.060	-0.019	0.107	-0.068	-0.154	0.040	-0.013

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RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions

	<i>RBI</i>	<i>RIVPACS</i>	<i>Integ. SQO Benthic</i>	<i>Infauna Abund.</i>	<i>Taxa Richness - SQO</i>	<i>Site Abund.</i>	<i>Taxa Richness - Total</i>	<i>SWI</i>	<i>% Sensitive</i>	<i>% Dominant</i>
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>
BRI										
IBI										
RBI	1.000									
RIVPACS	0.687	1.000								
Integ. SQO Benthic	-0.792	-0.573	1.000							
Infauna Abund.	0.653	0.455	-0.524	1.000						
Taxa Richness - SQO	0.803	0.650	-0.672	0.858	1.000					
Site Abund.	0.639	0.438	-0.527	0.995	0.843	1.000				
Taxa Richness - Total	0.791	0.627	-0.668	0.866	0.996	0.857	1.000			
SWI	0.678	0.519	-0.536	0.447	0.716	0.440	0.724	1.000		
% Sensitive	0.574	0.348	-0.345	0.578	0.524	0.561	0.516	0.297	1.000	
% Dominant	-0.441	-0.277	0.360	-0.151	-0.373	-0.139	-0.369	-0.694	-0.111	1.000
% Dom. 3 species	-0.596	-0.423	0.501	-0.314	-0.591	-0.303	-0.585	-0.810	-0.210	0.882
% Polychaete taxa	-0.270	-0.256	0.142	-0.414	-0.400	-0.436	-0.422	-0.200	-0.238	-0.025
% Polychaete indiv.	-0.119	0.021	0.009	-0.274	-0.245	-0.304	-0.270	-0.089	-0.164	-0.164
% Bivalve taxa	0.505	0.309	-0.167	0.230	0.267	0.221	0.264	0.230	0.497	-0.148
% Bivalve indiv.	0.268	0.362	-0.024	-0.088	0.048	-0.091	0.037	0.156	0.211	-0.125
Amphipod Surv	-0.119	-0.158	0.109	-0.153	-0.218	-0.153	-0.225	-0.292	0.130	0.209

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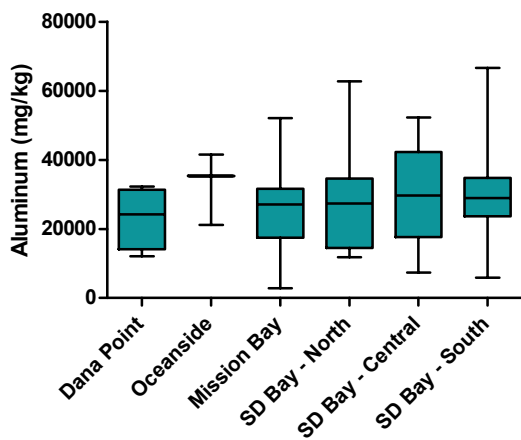
**RHMP 2013 - Sediment Chemistry and Benthic Infauna Correlations:
Spearman Rank (r values) on Transformed Data to Normalize Data Distributions**

	% Dom. 3 species	% Polychaete taxa	% Polychaete indiv.	% Bivalve taxa	% Bivalve indiv.	Amphipod Surv.
<i>Transform</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Log</i>	<i>Arcsin Sqrt</i>
BRI						
IBI						
RBI						
RIVPACS						
Integ. SQO Benthic Infauna Abund.						
Taxa Richness - SQO Site Abund.						
Taxa Richness - Total SWI						
% Sensitive						
% Dominant						
% Dom. 3 species	1.000					
% Polychaete taxa	0.084	1.000				
% Polychaete indiv.	-0.001	0.679	1.000			
% Bivalve taxa	-0.158	-0.445	-0.302	1.000		
% Bivalve indiv.	-0.145	-0.235	-0.263	0.659	1.000	
Amphipod Surv	0.317	0.201	-0.027	-0.046	0.030	1.000

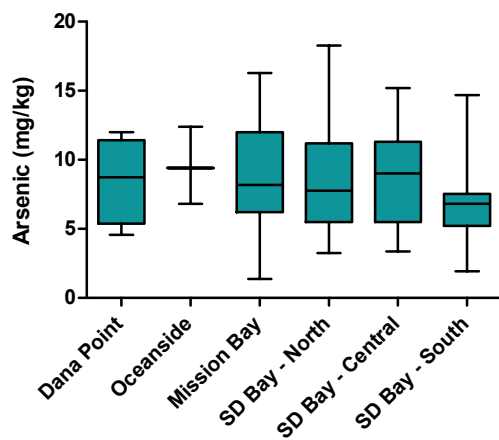
r values greater than ± 0.4 are highlighted for reference indicating relatively strong relationships based on the number of comparisons (n=75). Highlighted values do not denote statist. signif. which may occur at values $>$ or $<$ than those highlighted.

Summary Box Plots and Statistical Comparisons by Harbor

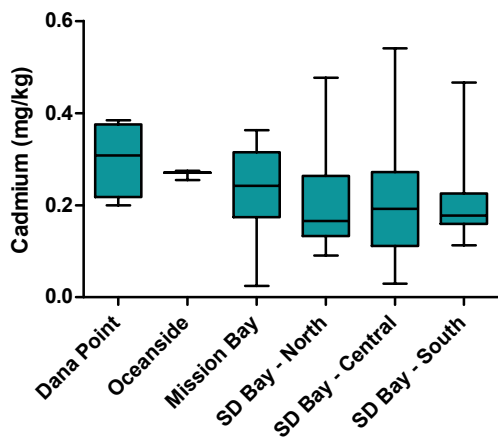
Aluminum



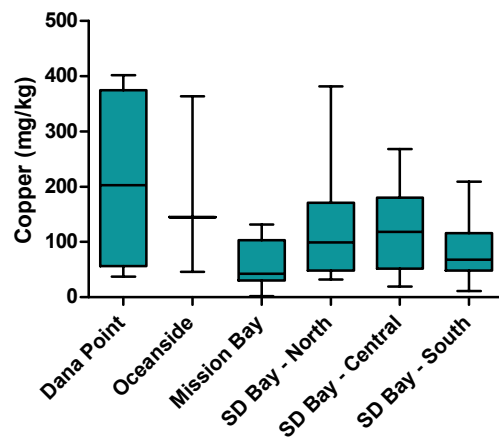
Arsenic



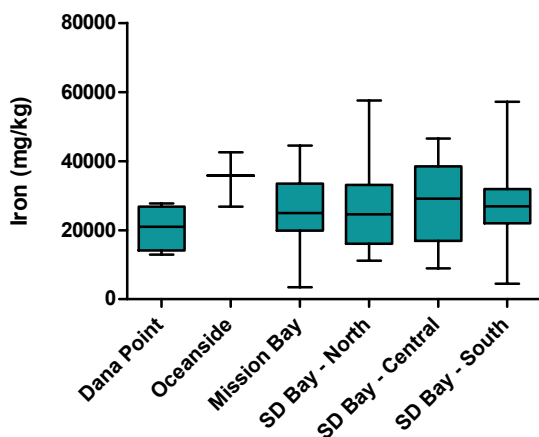
Cadmium



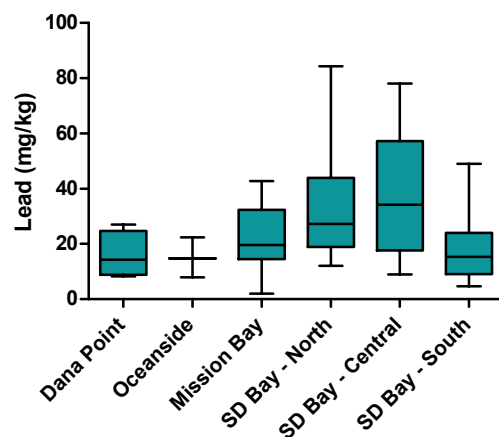
Copper



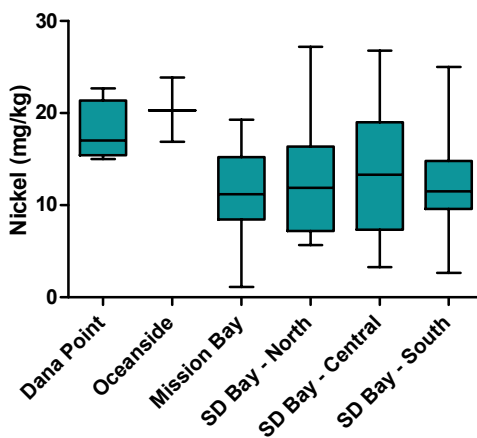
Iron



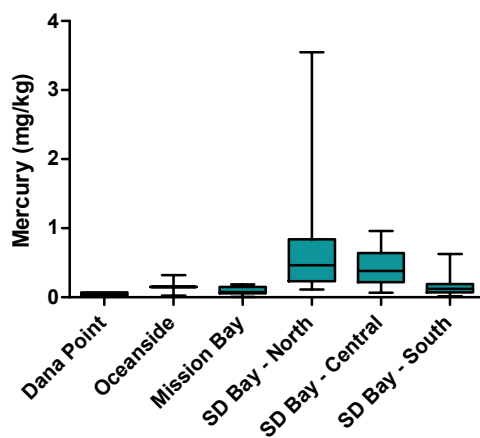
Lead



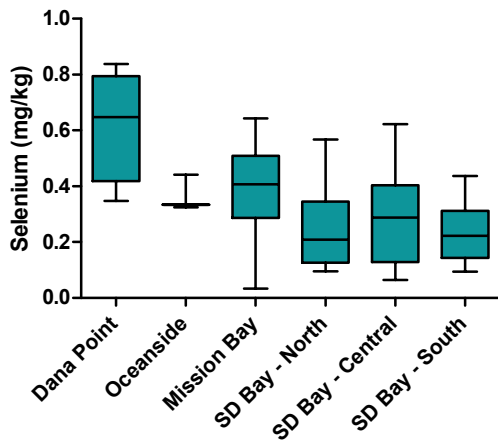
Nickel



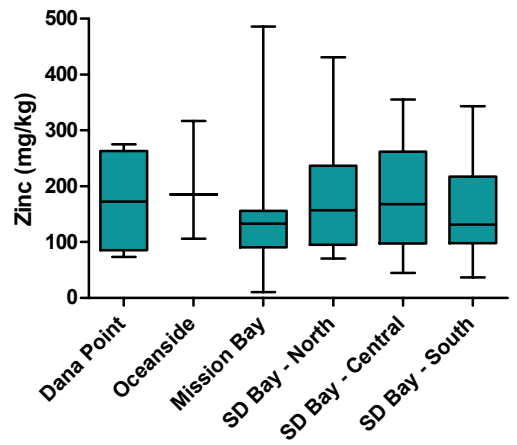
Mercury



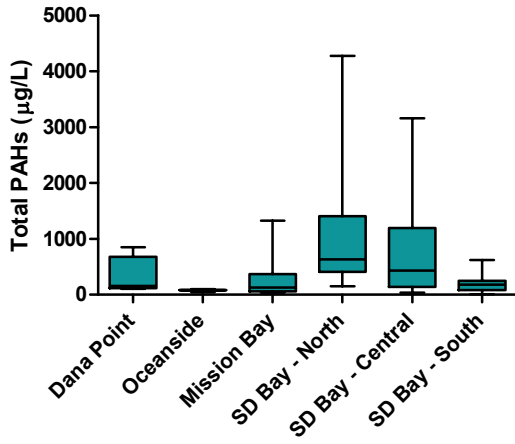
Selenium



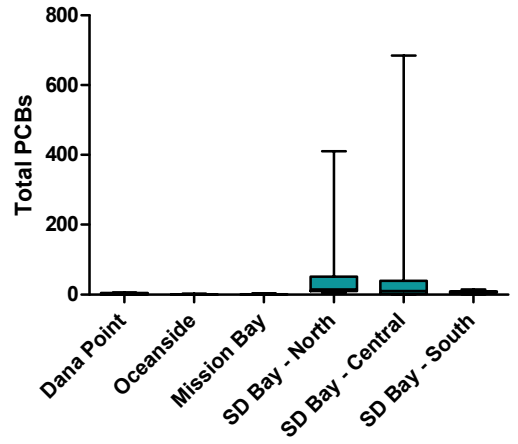
Zinc



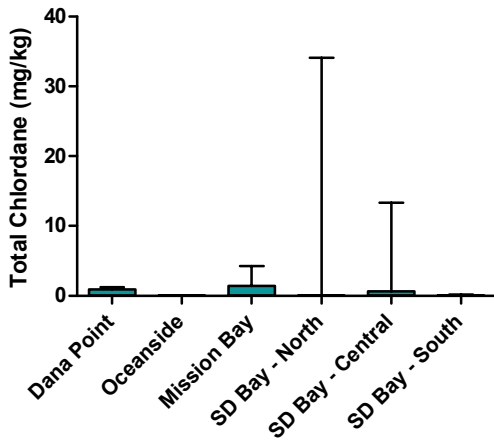
Total PAHs



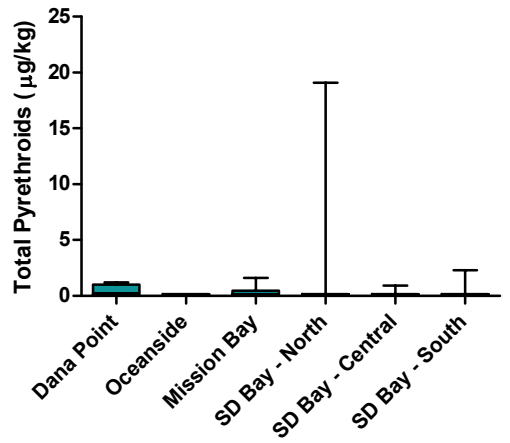
Total PCBs



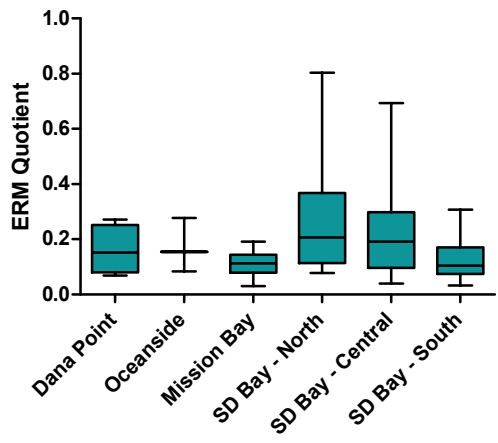
Total Chlordane



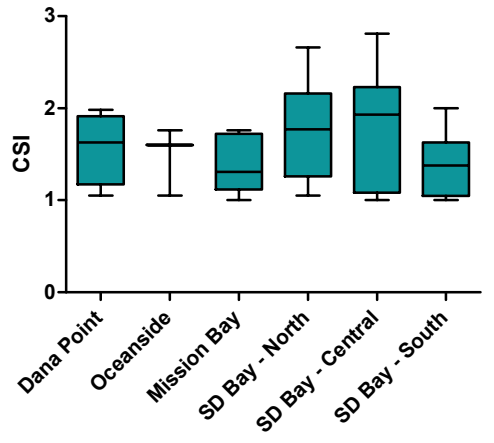
Total Pyrethroids



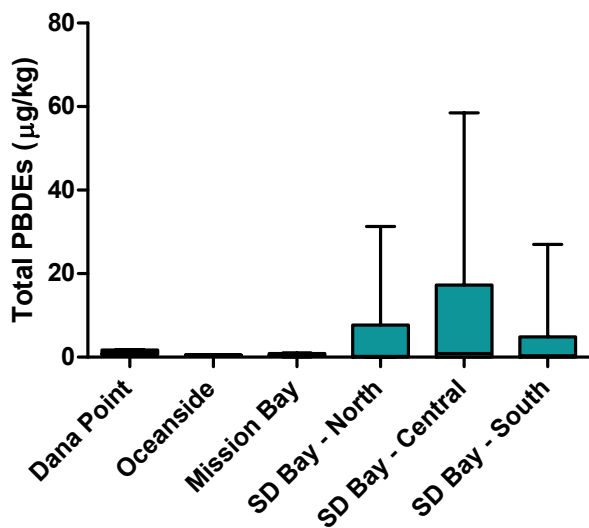
ERM-Q



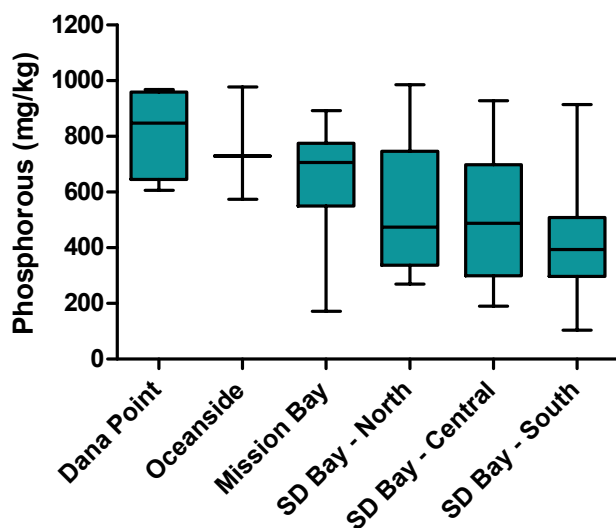
CSI Index



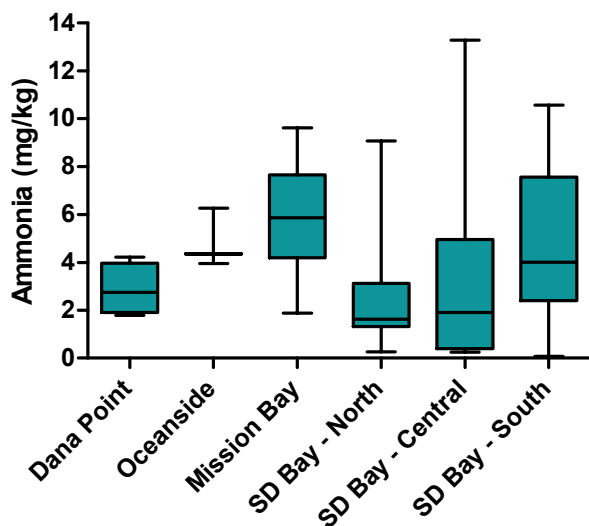
PBDEs



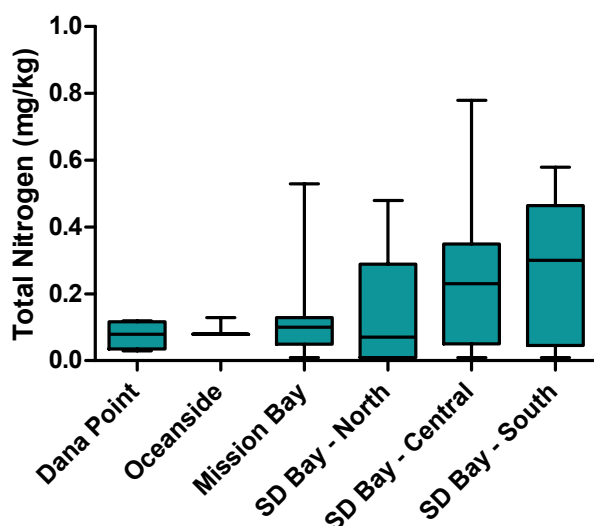
Phosphorous



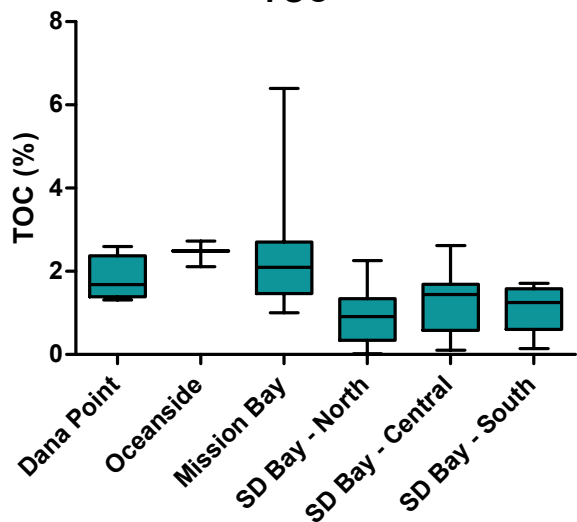
Ammonia



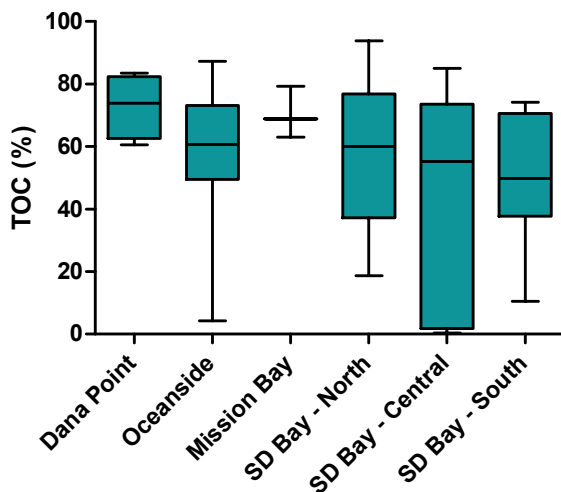
Total N

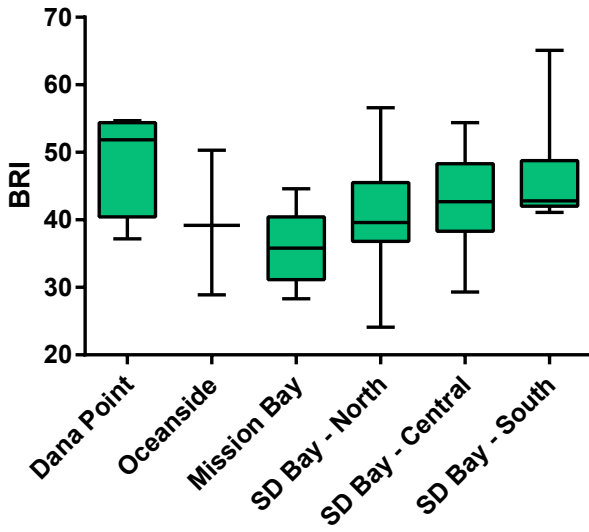
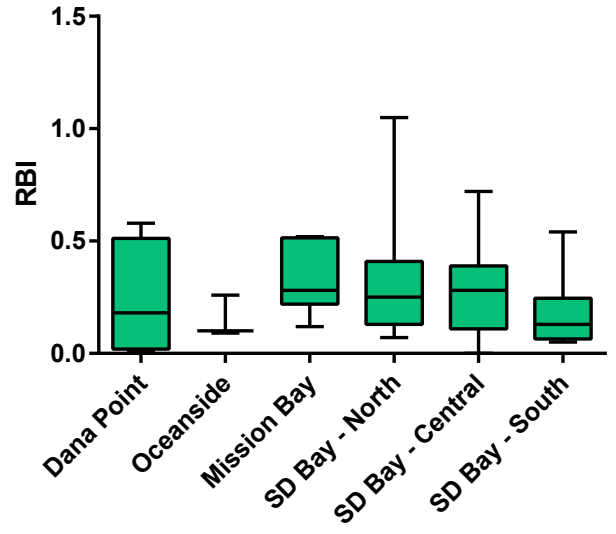
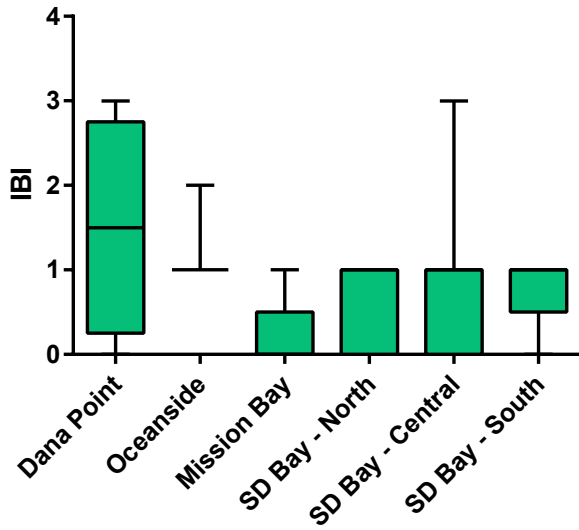
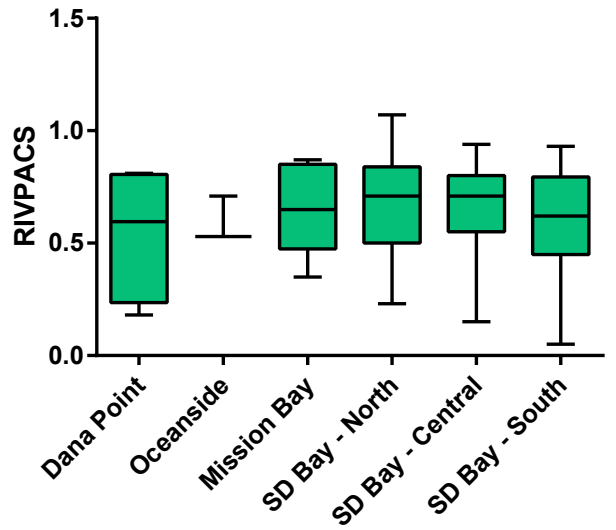
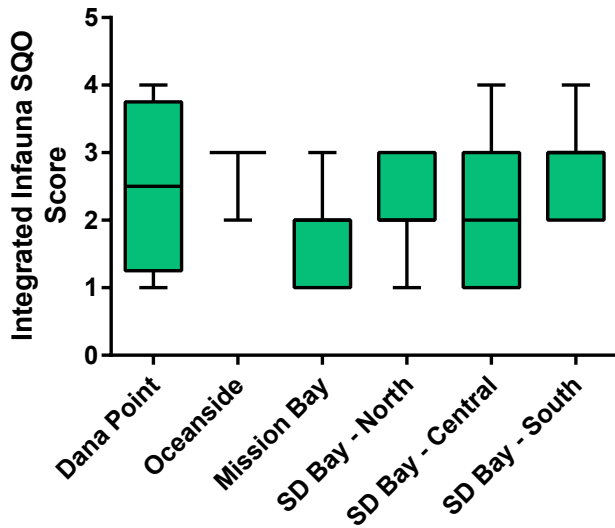
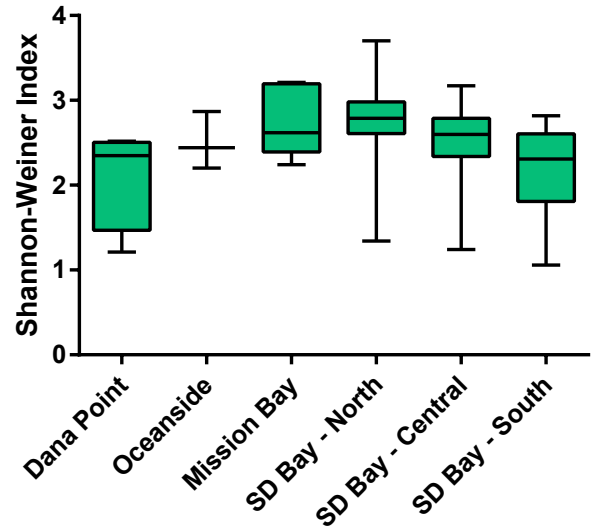


TOC

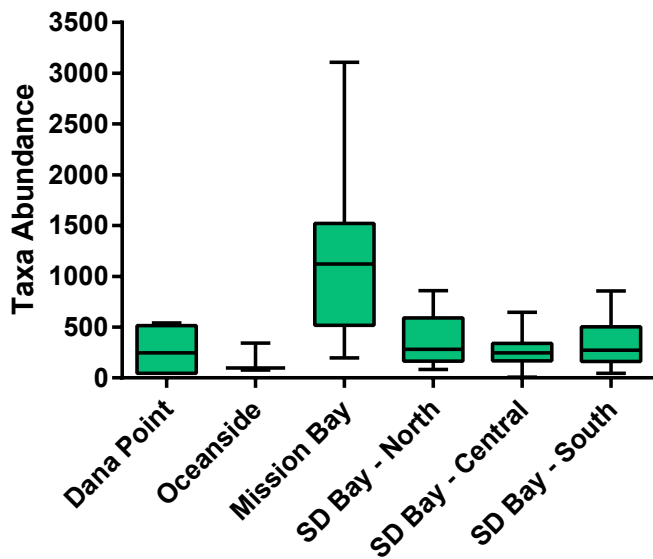


% Fines

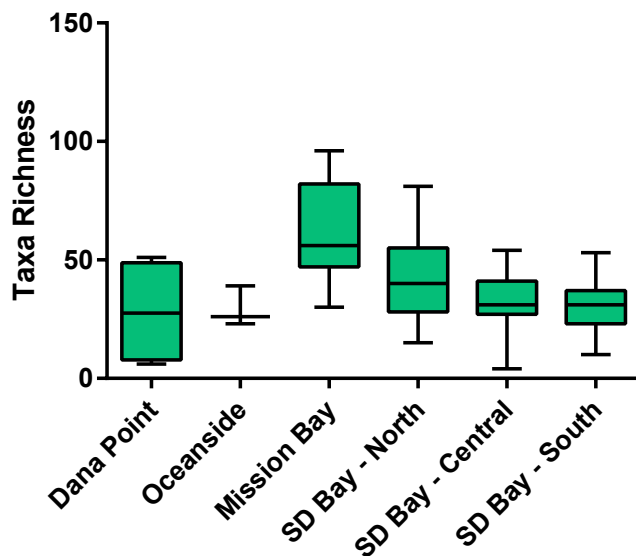


BRI**RBI****IBI****RIVPACS****Integrated Infauna SQO****SWI**

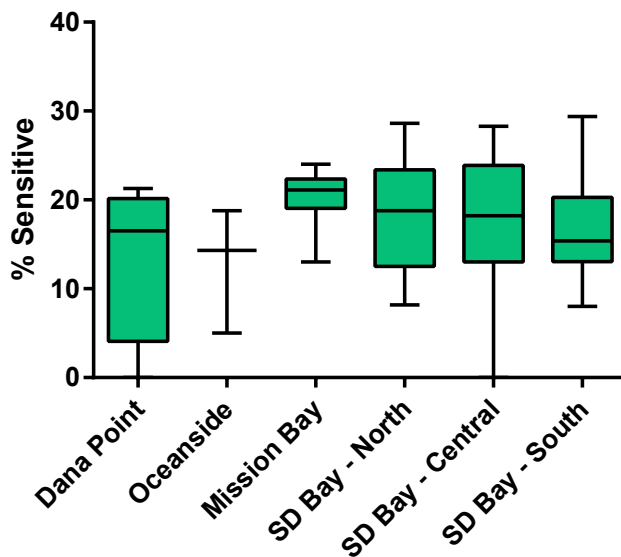
Taxa Abundance



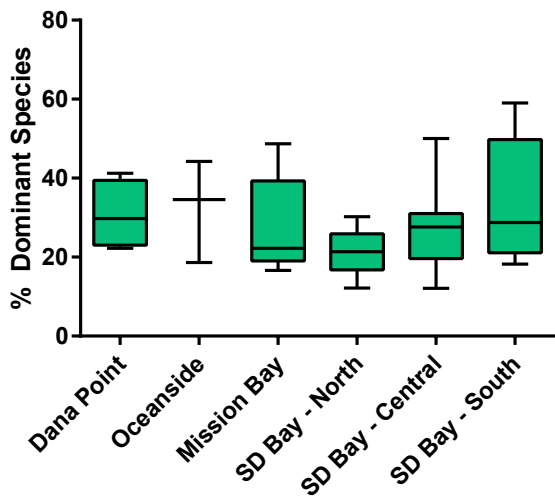
Taxa Richness



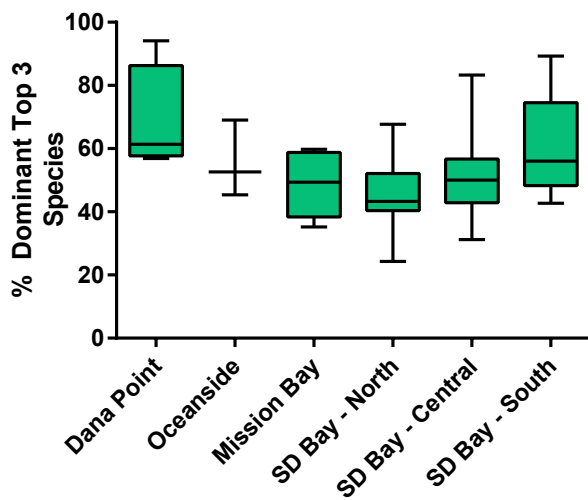
% Sensitive Taxa



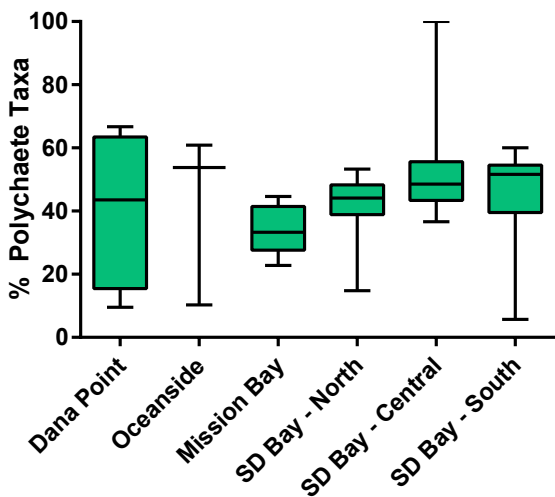
% Dominant Species



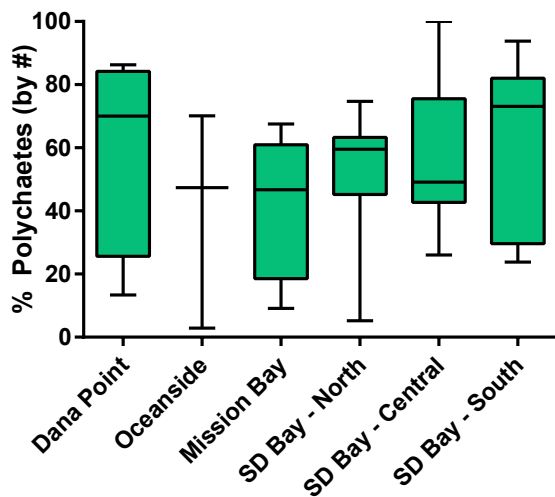
% Dominant - Top 3% Species



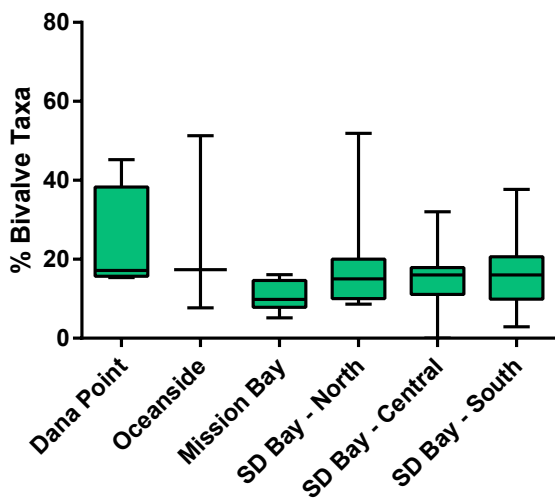
% Polychaete Taxa



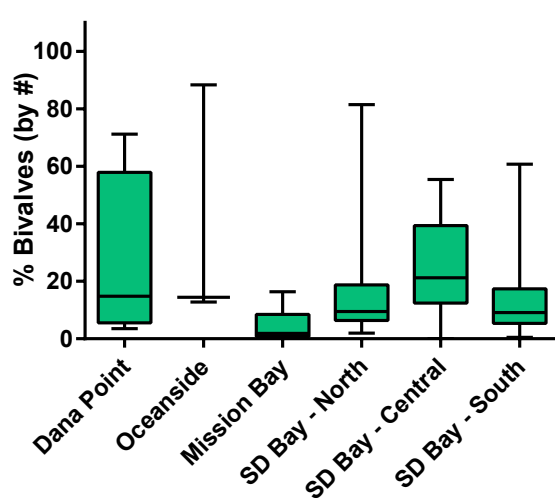
% Polychaetes (by #)



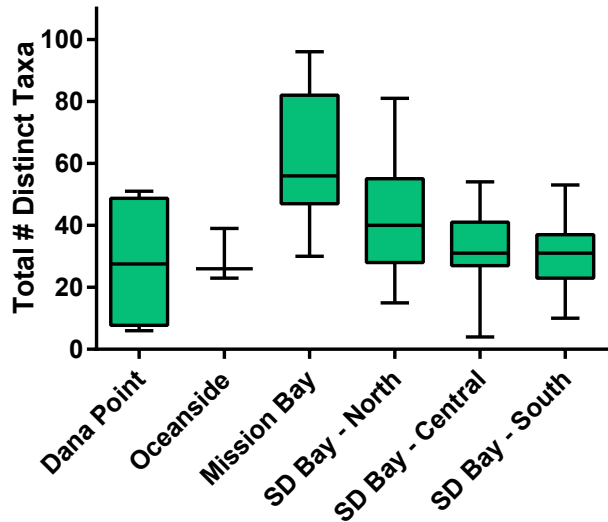
% Bivalve Taxa



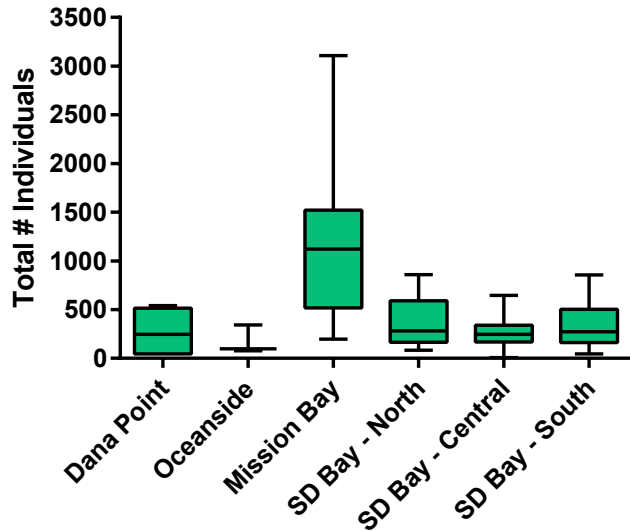
% Bivalves (by #)



**Total # Distinct Taxa
Benthic Infauna**



**Total # Individuals
Benthic Infauna**



Aluminum

ANOVA summary (log transformed)

F	0.4316
P value	0.8251
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.03032

Brown-Forsythe test

F (DFn, DFd)	0.3674 (5, 69)
P value	0.8692
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.01815	-0.4259 to 0.4622	No	ns
Data Point vs. Oceanside	-0.1607	-0.7250 to 0.4036	No	ns
Data Point vs. SD Bay - North	-0.03847	-0.4450 to 0.3680	No	ns
Data Point vs. SD Bay - Central	-0.07914	-0.4750 to 0.3167	No	ns
Data Point vs. SD Bay - South	-0.09788	-0.5204 to 0.3246	No	ns
Mission Bay vs. Oceanside	-0.1789	-0.6715 to 0.3138	No	ns
Mission Bay vs. SD Bay - North	-0.05663	-0.3556 to 0.2424	No	ns
Mission Bay vs. SD Bay - Central	-0.09729	-0.3817 to 0.1871	No	ns
Mission Bay vs. SD Bay - South	-0.116	-0.4364 to 0.2044	No	ns
Oceanside vs. SD Bay - North	0.1222	-0.3368 to 0.5813	No	ns
Oceanside vs. SD Bay - Central	0.08156	-0.3681 to 0.5312	No	ns
Oceanside vs. SD Bay - South	0.06282	-0.4105 to 0.5361	No	ns
SD Bay - North vs. SD Bay - Central	-0.04066	-0.2619 to 0.1806	No	ns
SD Bay - North vs. SD Bay - South	-0.0594	-0.3254 to 0.2066	No	ns
SD Bay - Central vs. SD Bay - South	-0.01874	-0.2682 to 0.2307	No	ns

Arsenic

ANOVA summary (log transformed)

F	0.6812
P value	0.6392
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.04704

Brown-Forsythe test

F (DFn, DFd)	0.5054 (5, 69)
P value	0.7712
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.03194	-0.3513 to 0.4152	No	ns
Data Point vs. Oceanside	-0.06288	-0.5500 to 0.4242	No	ns
Data Point vs. SD Bay - North	-0.003237	-0.3541 to 0.3476	No	ns
Data Point vs. SD Bay - Central	0.009811	-0.3319 to 0.3515	No	ns
Data Point vs. SD Bay - South	0.1185	-0.2461 to 0.4832	No	ns
Mission Bay vs. Oceanside	-0.09481	-0.5200 to 0.3304	No	ns
Mission Bay vs. SD Bay - North	-0.03517	-0.2932 to 0.2229	No	ns
Mission Bay vs. SD Bay - Central	-0.02212	-0.2676 to 0.2233	No	ns
Mission Bay vs. SD Bay - South	0.08661	-0.1899 to 0.3632	No	ns
Oceanside vs. SD Bay - North	0.05964	-0.3366 to 0.4558	No	ns
Oceanside vs. SD Bay - Central	0.07269	-0.3154 to 0.4608	No	ns
Oceanside vs. SD Bay - South	0.1814	-0.2271 to 0.5899	No	ns
SD Bay - North vs. SD Bay - Central	0.01305	-0.1779 to 0.2040	No	ns
SD Bay - North vs. SD Bay - South	0.1218	-0.1078 to 0.3513	No	ns
SD Bay - Central vs. SD Bay - South	0.1087	-0.1066 to 0.3240	No	ns

Cadmium

ANOVA summary (log transformed)

F	0.6384
P value	0.6712
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.04421

Brown-Forsythe test

F (DFn, DFd)	1.998 (5, 69)
P value	0.0897
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1782	-0.2822 to 0.6386	No	ns
Data Point vs. Oceanside	0.03835	-0.5468 to 0.6235	No	ns
Data Point vs. SD Bay - North	0.1901	-0.2313 to 0.6116	No	ns
Data Point vs. SD Bay - Central	0.2105	-0.2000 to 0.6209	No	ns
Data Point vs. SD Bay - South	0.1657	-0.2724 to 0.6037	No	ns
Mission Bay vs. Oceanside	-0.1398	-0.6506 to 0.3709	No	ns
Mission Bay vs. SD Bay - North	0.01194	-0.2981 to 0.3220	No	ns
Mission Bay vs. SD Bay - Central	0.03228	-0.2626 to 0.3272	No	ns
Mission Bay vs. SD Bay - South	-0.01251	-0.3447 to 0.3197	No	ns
Oceanside vs. SD Bay - North	0.1518	-0.3242 to 0.6277	No	ns
Oceanside vs. SD Bay - Central	0.1721	-0.2941 to 0.6383	No	ns
Oceanside vs. SD Bay - South	0.1273	-0.3634 to 0.6180	No	ns
SD Bay - North vs. SD Bay - Central	0.02033	-0.2091 to 0.2497	No	ns
SD Bay - North vs. SD Bay - South	-0.02446	-0.3002 to 0.2513	No	ns
SD Bay - Central vs. SD Bay - South	-0.04479	-0.3034 to 0.2138	No	ns

Copper

ANOVA summary (log transformed)

F	2.71
P value	0.0271
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1641

Brown-Forsythe test

F (DFn, DFd)	0.3586 (5, 69)
P value	0.875
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.594	-0.05113 to 1.239	No	ns
Data Point vs. Oceanside	0.04522	-0.7747 to 0.8651	No	ns
Data Point vs. SD Bay - North	0.1802	-0.4104 to 0.7707	No	ns
Data Point vs. SD Bay - Central	0.1848	-0.3904 to 0.7599	No	ns
Data Point vs. SD Bay - South	0.3641	-0.2497 to 0.9779	No	ns
Mission Bay vs. Oceanside	-0.5488	-1.264 to 0.1669	No	ns
Mission Bay vs. SD Bay - North	-0.4138	-0.8482 to 0.02058	No	ns
Mission Bay vs. SD Bay - Central	-0.4092	-0.8224 to 0.003997	No	ns
Mission Bay vs. SD Bay - South	-0.2299	-0.6954 to 0.2356	No	ns
Oceanside vs. SD Bay - North	0.1349	-0.5320 to 0.8019	No	ns
Oceanside vs. SD Bay - Central	0.1396	-0.5138 to 0.7929	No	ns
Oceanside vs. SD Bay - South	0.3189	-0.3687 to 1.006	No	ns
SD Bay - North vs. SD Bay - Central	0.00462	-0.3168 to 0.3261	No	ns
SD Bay - North vs. SD Bay - South	0.1839	-0.2025 to 0.5703	No	ns
SD Bay - Central vs. SD Bay - South	0.1793	-0.1831 to 0.5417	No	ns

Iron

ANOVA summary (log transformed)

F	0.4421
P value	0.8175
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.03104

Brown-Forsythe test

F (DFn, DFd)	0.4178 (5, 69)
P value	0.8348
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.04873	-0.4651 to 0.3676	No	ns
Data Point vs. Oceanside	-0.2407	-0.7699 to 0.2885	No	ns
Data Point vs. SD Bay - North	-0.07847	-0.4596 to 0.3027	No	ns
Data Point vs. SD Bay - Central	-0.104	-0.4752 to 0.2672	No	ns
Data Point vs. SD Bay - South	-0.09043	-0.4866 to 0.3057	No	ns
Mission Bay vs. Oceanside	-0.192	-0.6539 to 0.2699	No	ns
Mission Bay vs. SD Bay - North	-0.02974	-0.3101 to 0.2506	No	ns
Mission Bay vs. SD Bay - Central	-0.05526	-0.3219 to 0.2114	No	ns
Mission Bay vs. SD Bay - South	-0.04169	-0.3421 to 0.2588	No	ns
Oceanside vs. SD Bay - North	0.1623	-0.2682 to 0.5927	No	ns
Oceanside vs. SD Bay - Central	0.1367	-0.2849 to 0.5584	No	ns
Oceanside vs. SD Bay - South	0.1503	-0.2935 to 0.5941	No	ns
SD Bay - North vs. SD Bay - Central	-0.02552	-0.2330 to 0.1820	No	ns
SD Bay - North vs. SD Bay - South	-0.01195	-0.2613 to 0.2374	No	ns
SD Bay - Central vs. SD Bay - South	0.01357	-0.2203 to 0.2475	No	ns

Mercury

ANOVA summary (log transformed)

F	13.16
P value	< 0.0001
P value summary	****
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.4881

Brown-Forsythe test

F (DFn, DFd)	0.2936 (5, 69)
P value	0.9149
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.195	-0.8607 to 0.4708	No	ns
Data Point vs. Oceanside	-0.4075	-1.254 to 0.4386	No	ns
Data Point vs. SD Bay - North	-1.073	-1.682 to -0.4633	Yes	****
Data Point vs. SD Bay - Central	-0.9163	-1.510 to -0.3228	Yes	***
Data Point vs. SD Bay - South	-0.4231	-1.057 to 0.2104	No	ns
Mission Bay vs. Oceanside	-0.2125	-0.9511 to 0.5260	No	ns
Mission Bay vs. SD Bay - North	-0.8778	-1.326 to -0.4295	Yes	****
Mission Bay vs. SD Bay - Central	-0.7214	-1.148 to -0.2950	Yes	****
Mission Bay vs. SD Bay - South	-0.2281	-0.7085 to 0.2523	No	ns
Oceanside vs. SD Bay - North	-0.6653	-1.354 to 0.02300	No	ns
Oceanside vs. SD Bay - Central	-0.5088	-1.183 to 0.1654	No	ns
Oceanside vs. SD Bay - South	-0.01559	-0.7252 to 0.6940	No	ns
SD Bay - North vs. SD Bay - Central	0.1564	-0.1753 to 0.4882	No	ns
SD Bay - North vs. SD Bay - South	0.6497	0.2509 to 1.048	Yes	***
SD Bay - Central vs. SD Bay - South	0.4933	0.1193 to 0.8672	Yes	**

Nickel

ANOVA summary (log transformed)

F	1.29
P value	0.2782
P value summary	ns

Are differences among means statistically significant? ($P < 0.05$)

No

R square 0.0855

Brown-Forsythe test

F (DFn, DFd)	1.061 (5, 69)
P value	0.3893
P value summary	ns
Significantly different standard deviations? ($P < 0.05$)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.2755	-0.1622 to 0.7133	No	ns
Data Point vs. Oceanside	-0.05575	-0.6121 to 0.5006	No	ns
Data Point vs. SD Bay - North	0.2012	-0.1995 to 0.6019	No	ns
Data Point vs. SD Bay - Central	0.1887	-0.2015 to 0.5790	No	ns
Data Point vs. SD Bay - South	0.2108	-0.2057 to 0.6273	No	ns
Mission Bay vs. Oceanside	-0.3313	-0.8169 to 0.1544	No	ns
Mission Bay vs. SD Bay - North	-0.0743	-0.3691 to 0.2205	No	ns
Mission Bay vs. SD Bay - Central	-0.08679	-0.3672 to 0.1936	No	ns
Mission Bay vs. SD Bay - South	-0.06474	-0.3806 to 0.2511	No	ns
Oceanside vs. SD Bay - North	0.257	-0.1956 to 0.7095	No	ns
Oceanside vs. SD Bay - Central	0.2445	-0.1988 to 0.6878	No	ns
Oceanside vs. SD Bay - South	0.2665	-0.2001 to 0.7331	No	ns
SD Bay - North vs. SD Bay - Central	-0.01249	-0.2306 to 0.2056	No	ns
SD Bay - North vs. SD Bay - South	0.009566	-0.2526 to 0.2718	No	ns
SD Bay - Central vs. SD Bay - South	0.02205	-0.2239 to 0.2680	No	ns

Lead

ANOVA summary (log transformed)

F	3.453
P value	0.0076
P value summary	**
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2001

Brown-Forsythe test

F (DFn, DFd)	0.4059 (5, 69)
P value	0.8431
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.09062	-0.5995 to 0.4183	No	ns
Data Point vs. Oceanside	0.01832	-0.6285 to 0.6651	No	ns
Data Point vs. SD Bay - North	-0.299	-0.7649 to 0.1669	No	ns
Data Point vs. SD Bay - Central	-0.3245	-0.7782 to 0.1292	No	ns
Data Point vs. SD Bay - South	-0.0186	-0.5028 to 0.4656	No	ns
Mission Bay vs. Oceanside	0.1089	-0.4556 to 0.6735	No	ns
Mission Bay vs. SD Bay - North	-0.2084	-0.5511 to 0.1343	No	ns
Mission Bay vs. SD Bay - Central	-0.2339	-0.5599 to 0.09204	No	ns
Mission Bay vs. SD Bay - South	0.07202	-0.2952 to 0.4392	No	ns
Oceanside vs. SD Bay - North	-0.3173	-0.8434 to 0.2088	No	ns
Oceanside vs. SD Bay - Central	-0.3429	-0.8582 to 0.1725	No	ns
Oceanside vs. SD Bay - South	-0.03692	-0.5793 to 0.5055	No	ns
SD Bay - North vs. SD Bay - Central	-0.02553	-0.2791 to 0.2281	No	ns
SD Bay - North vs. SD Bay - South	0.2804	-0.02441 to 0.5852	No	ns
SD Bay - Central vs. SD Bay - South	0.3059	0.02006 to 0.5918	Yes	*

Selenium

ANOVA summary (log transformed)

F	2.578
P value	0.0339
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1574

Brown-Forsythe test

F (DFn, DFd)	1.173 (5, 69)
P value	0.3314
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.2696	-0.2060 to 0.7452	No	ns
Data Point vs. Oceanside	0.2114	-0.3931 to 0.8159	No	ns
Data Point vs. SD Bay - North	0.4441	0.008688 to 0.8795	Yes	*
Data Point vs. SD Bay - Central	0.4165	-0.007532 to 0.8406	No	ns
Data Point vs. SD Bay - South	0.4439	-0.008659 to 0.8964	No	ns
Mission Bay vs. Oceanside	-0.05817	-0.5858 to 0.4695	No	ns
Mission Bay vs. SD Bay - North	0.1745	-0.1458 to 0.4948	No	ns
Mission Bay vs. SD Bay - Central	0.1469	-0.1577 to 0.4516	No	ns
Mission Bay vs. SD Bay - South	0.1743	-0.1689 to 0.5175	No	ns
Oceanside vs. SD Bay - North	0.2327	-0.2590 to 0.7244	No	ns
Oceanside vs. SD Bay - Central	0.2051	-0.2766 to 0.6868	No	ns
Oceanside vs. SD Bay - South	0.2325	-0.2745 to 0.7394	No	ns
SD Bay - North vs. SD Bay - Central	-0.02759	-0.2646 to 0.2094	No	ns
SD Bay - North vs. SD Bay - South	-0.0002094	-0.2851 to 0.2847	No	ns
SD Bay - Central vs. SD Bay - South	0.02738	-0.2398 to 0.2946	No	ns

Zinc

ANOVA summary (log transformed)

F	0.7155
P value	0.6139
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.04929

Brown-Forsythe test

F (DFn, DFd)	0.3079 (5, 69)
P value	0.9066
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1535	-0.3330 to 0.6400	No	ns
Data Point vs. Oceanside	-0.08027	-0.6986 to 0.5380	No	ns
Data Point vs. SD Bay - North	0.0005753	-0.4448 to 0.4459	No	ns
Data Point vs. SD Bay - Central	-0.01998	-0.4537 to 0.4137	No	ns
Data Point vs. SD Bay - South	0.06834	-0.3945 to 0.5312	No	ns
Mission Bay vs. Oceanside	-0.2338	-0.7734 to 0.3059	No	ns
Mission Bay vs. SD Bay - North	-0.1529	-0.4805 to 0.1747	No	ns
Mission Bay vs. SD Bay - Central	-0.1735	-0.4851 to 0.1381	No	ns
Mission Bay vs. SD Bay - South	-0.08515	-0.4362 to 0.2659	No	ns
Oceanside vs. SD Bay - North	0.08084	-0.4221 to 0.5838	No	ns
Oceanside vs. SD Bay - Central	0.06028	-0.4324 to 0.5530	No	ns
Oceanside vs. SD Bay - South	0.1486	-0.3699 to 0.6671	No	ns
SD Bay - North vs. SD Bay - Central	-0.02056	-0.2630 to 0.2219	No	ns
SD Bay - North vs. SD Bay - South	0.06777	-0.2236 to 0.3592	No	ns
SD Bay - Central vs. SD Bay - South	0.08833	-0.1850 to 0.3616	No	ns

Total Nitrogen

ANOVA summary (log transformed)

F	1.039
P value	0.4019
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.07002

Brown-Forsythe test

F (DFn, DFd)	1.647 (5, 69)
P value	0.1592
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.1051	-1.138 to 0.9281	No	ns
Data Point vs. Oceanside	-0.1492	-1.462 to 1.164	No	ns
Data Point vs. SD Bay - North	0.02471	-0.9211 to 0.9705	No	ns
Data Point vs. SD Bay - Central	-0.2974	-1.219 to 0.6237	No	ns
Data Point vs. SD Bay - South	-0.3631	-1.346 to 0.6199	No	ns
Mission Bay vs. Oceanside	-0.04413	-1.190 to 1.102	No	ns
Mission Bay vs. SD Bay - North	0.1298	-0.5659 to 0.8255	No	ns
Mission Bay vs. SD Bay - Central	-0.1923	-0.8541 to 0.4694	No	ns
Mission Bay vs. SD Bay - South	-0.258	-1.004 to 0.4875	No	ns
Oceanside vs. SD Bay - North	0.1739	-0.8942 to 1.242	No	ns
Oceanside vs. SD Bay - Central	-0.1482	-1.195 to 0.8981	No	ns
Oceanside vs. SD Bay - South	-0.2139	-1.315 to 0.8873	No	ns
SD Bay - North vs. SD Bay - Central	-0.3221	-0.8369 to 0.1927	No	ns
SD Bay - North vs. SD Bay - South	-0.3878	-1.007 to 0.2310	No	ns
SD Bay - Central vs. SD Bay - South	-0.06571	-0.6461 to 0.5147	No	ns

Ammonia

ANOVA summary (log transformed)

F	2.648
P value	0.0301
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.161

Brown-Forsythe test

F (DFn, DFd)	2.906 (5, 69)
P value	0.0194
P value summary	*
Significantly different standard deviations? (P < 0.05)	Yes

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.2909	-1.087 to 0.5056	No	ns
Data Point vs. Oceanside	-0.2421	-1.254 to 0.7702	No	ns
Data Point vs. SD Bay - North	0.1642	-0.5649 to 0.8934	No	ns
Data Point vs. SD Bay - Central	0.2433	-0.4668 to 0.9535	No	ns
Data Point vs. SD Bay - South	-0.06685	-0.8247 to 0.6910	No	ns
Mission Bay vs. Oceanside	0.04882	-0.8348 to 0.9325	No	ns
Mission Bay vs. SD Bay - North	0.4552	-0.08118 to 0.9915	No	ns
Mission Bay vs. SD Bay - Central	0.5343	0.02408 to 1.044	Yes	*
Mission Bay vs. SD Bay - South	0.2241	-0.3507 to 0.7988	No	ns
Oceanside vs. SD Bay - North	0.4063	-0.4171 to 1.230	No	ns
Oceanside vs. SD Bay - Central	0.4854	-0.3212 to 1.292	No	ns
Oceanside vs. SD Bay - South	0.1753	-0.6737 to 1.024	No	ns
SD Bay - North vs. SD Bay - Central	0.07908	-0.3178 to 0.4760	No	ns
SD Bay - North vs. SD Bay - South	-0.2311	-0.7082 to 0.2460	No	ns
SD Bay - Central vs. SD Bay - South	-0.3102	-0.7576 to 0.1373	No	ns

Untransformed Data Analysis

Kruskal-Wallis test

P value	0.0108
Exact or approximate P value?	Approximate
P value summary	*
Do the medians vary signif. (P < 0.05)	Yes
Number of groups	6
Kruskal-Wallis statistic	14.89

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Data Point vs. Mission Bay	-20.11	No	ns
Data Point vs. Oceanside	-16	No	ns
Data Point vs. SD Bay - North	6.053	No	ns
Data Point vs. SD Bay - Central	5.889	No	ns
Data Point vs. SD Bay - South	-9.231	No	ns
Mission Bay vs. Oceanside	4.111	No	ns
Mission Bay vs. SD Bay - North	26.16	Yes	*
Mission Bay vs. SD Bay - Central	26	Yes	*
Mission Bay vs. SD Bay - South	10.88	No	ns
Oceanside vs. SD Bay - North	22.05	No	ns
Oceanside vs. SD Bay - Central	21.89	No	ns
Oceanside vs. SD Bay - South	6.769	No	ns
SD Bay - North vs. SD Bay - Central	-0.1637	No	ns
SD Bay - North vs. SD Bay - South	-15.28	No	ns
SD Bay - Central vs. SD Bay - South	-15.12	No	ns

Phosphorus

ANOVA summary (log transformed)

F	2.965
P value	0.0175
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1769

Brown-Forsythe test

F (DFn, DFd)	0.6442 (5, 69)
P value	0.6667
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1355	-0.2064 to 0.4774	No	ns
Data Point vs. Oceanside	0.03477	-0.3998 to 0.4693	No	ns
Data Point vs. SD Bay - North	0.2057	-0.1073 to 0.5187	No	ns
Data Point vs. SD Bay - Central	0.2577	-0.04719 to 0.5625	No	ns
Data Point vs. SD Bay - South	0.3294	0.004098 to 0.6548	Yes	*
Mission Bay vs. Oceanside	-0.1007	-0.4800 to 0.2786	No	ns
Mission Bay vs. SD Bay - North	0.07023	-0.1600 to 0.3005	No	ns
Mission Bay vs. SD Bay - Central	0.1222	-0.09684 to 0.3412	No	ns
Mission Bay vs. SD Bay - South	0.1939	-0.05278 to 0.4407	No	ns
Oceanside vs. SD Bay - North	0.1709	-0.1826 to 0.5244	No	ns
Oceanside vs. SD Bay - Central	0.2229	-0.1234 to 0.5692	No	ns
Oceanside vs. SD Bay - South	0.2947	-0.06978 to 0.6591	No	ns
SD Bay - North vs. SD Bay - Central	0.05194	-0.1184 to 0.2223	No	ns
SD Bay - North vs. SD Bay - South	0.1237	-0.08108 to 0.3285	No	ns
SD Bay - Central vs. SD Bay - South	0.07178	-0.1203 to 0.2639	No	ns

TOC

ANOVA summary (log transformed)

F	3.919
P value	0.0035
P value summary	**
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2212

Brown-Forsythe test

F (DFn, DFd)	1.252 (5, 69)
P value	0.2945
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.08673	-0.7131 to 0.5396	No	ns
Data Point vs. Oceanside	-0.1404	-0.9365 to 0.6556	No	ns
Data Point vs. SD Bay - North	0.4513	-0.1221 to 1.025	No	ns
Data Point vs. SD Bay - Central	0.2393	-0.3192 to 0.7977	No	ns
Data Point vs. SD Bay - South	0.2678	-0.3282 to 0.8637	No	ns
Mission Bay vs. Oceanside	-0.05372	-0.7486 to 0.6412	No	ns
Mission Bay vs. SD Bay - North	0.538	0.1162 to 0.9598	Yes	**
Mission Bay vs. SD Bay - Central	0.326	-0.07520 to 0.7272	No	ns
Mission Bay vs. SD Bay - South	0.3545	-0.09750 to 0.8065	No	ns
Oceanside vs. SD Bay - North	0.5917	-0.05582 to 1.239	No	ns
Oceanside vs. SD Bay - Central	0.3797	-0.2546 to 1.014	No	ns
Oceanside vs. SD Bay - South	0.4082	-0.2594 to 1.076	No	ns
SD Bay - North vs. SD Bay - Central	-0.212	-0.5241 to 0.1001	No	ns
SD Bay - North vs. SD Bay - South	-0.1835	-0.5587 to 0.1916	No	ns
SD Bay - Central vs. SD Bay - South	0.02849	-0.3234 to 0.3804	No	ns

Total PAHs

ANOVA summary (log transformed)

F	5.797
P value	0.0002
P value summary	***
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2958

Brown-Forsythe test

F (DFn, DFd)	1.129 (5, 69)
P value	0.3534
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1462	-0.7266 to 1.019	No	ns
Data Point vs. Oceanside	0.4968	-0.6125 to 1.606	No	ns
Data Point vs. SD Bay - North	-0.5301	-1.329 to 0.2688	No	ns
Data Point vs. SD Bay - Central	-0.2615	-1.040 to 0.5166	No	ns
Data Point vs. SD Bay - South	0.2323	-0.5981 to 1.063	No	ns
Mission Bay vs. Oceanside	0.3506	-0.6176 to 1.319	No	ns
Mission Bay vs. SD Bay - North	-0.6763	-1.264 to -0.08863	Yes	*
Mission Bay vs. SD Bay - Central	-0.4077	-0.9667 to 0.1513	No	ns
Mission Bay vs. SD Bay - South	0.0861	-0.5437 to 0.7159	No	ns
Oceanside vs. SD Bay - North	-1.027	-1.929 to -0.1246	Yes	*
Oceanside vs. SD Bay - Central	-0.7583	-1.642 to 0.1256	No	ns
Oceanside vs. SD Bay - South	-0.2645	-1.195 to 0.6657	No	ns
SD Bay - North vs. SD Bay - Central	0.2686	-0.1663 to 0.7035	No	ns
SD Bay - North vs. SD Bay - South	0.7624	0.2397 to 1.285	Yes	***
SD Bay - Central vs. SD Bay - South	0.4938	0.003520 to 0.9841	Yes	*

Total Pyrethroids

ANOVA summary (log transformed)

F	0.5762
P value	0.718
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.04008

Brown-Forsythe test

F (DFn, DFd)	0.6013 (5, 69)
P value	0.6991
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1514	-0.5538 to 0.8566	No	ns
Data Point vs. Oceanside	0.3625	-0.5338 to 1.259	No	ns
Data Point vs. SD Bay - North	0.1468	-0.4988 to 0.7924	No	ns
Data Point vs. SD Bay - Central	0.2607	-0.3680 to 0.8895	No	ns
Data Point vs. SD Bay - South	0.265	-0.4060 to 0.9360	No	ns
Mission Bay vs. Oceanside	0.2111	-0.5713 to 0.9934	No	ns
Mission Bay vs. SD Bay - North	-0.004579	-0.4795 to 0.4703	No	ns
Mission Bay vs. SD Bay - Central	0.1093	-0.3424 to 0.5610	No	ns
Mission Bay vs. SD Bay - South	0.1136	-0.3952 to 0.6225	No	ns
Oceanside vs. SD Bay - North	-0.2157	-0.9447 to 0.5134	No	ns
Oceanside vs. SD Bay - Central	-0.1017	-0.8159 to 0.6125	No	ns
Oceanside vs. SD Bay - South	-0.09744	-0.8491 to 0.6542	No	ns
SD Bay - North vs. SD Bay - Central	0.1139	-0.2375 to 0.4653	No	ns
SD Bay - North vs. SD Bay - South	0.1182	-0.3042 to 0.5406	No	ns
SD Bay - Central vs. SD Bay - South	0.004305	-0.3919 to 0.4005	No	ns

Total PBDEs

ANOVA summary (log transformed)

F	0.3163
P value	0.9016
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.02241

Brown-Forsythe test

F (DFn, DFd)	5.692 (5, 69)
P value	0.0002
P value summary	***
Significantly different standard deviations? (P < 0.05)	Yes

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.4148	-1.382 to 2.212	No	ns
Data Point vs. Oceanside	0.3387	-1.945 to 2.623	No	ns
Data Point vs. SD Bay - North	0.2554	-1.390 to 1.901	No	ns
Data Point vs. SD Bay - Central	0.04459	-1.558 to 1.647	No	ns
Data Point vs. SD Bay - South	0.3531	-1.357 to 2.063	No	ns
Mission Bay vs. Oceanside	-0.07618	-2.070 to 1.918	No	ns
Mission Bay vs. SD Bay - North	-0.1595	-1.370 to 1.051	No	ns
Mission Bay vs. SD Bay - Central	-0.3702	-1.521 to 0.7809	No	ns
Mission Bay vs. SD Bay - South	-0.06171	-1.359 to 1.235	No	ns
Oceanside vs. SD Bay - North	-0.08331	-1.941 to 1.775	No	ns
Oceanside vs. SD Bay - Central	-0.2941	-2.114 to 1.526	No	ns
Oceanside vs. SD Bay - South	0.01447	-1.901 to 1.930	No	ns
SD Bay - North vs. SD Bay - Central	-0.2108	-1.106 to 0.6848	No	ns
SD Bay - North vs. SD Bay - South	0.09779	-0.9787 to 1.174	No	ns
SD Bay - Central vs. SD Bay - South	0.3085	-0.7010 to 1.318	No	ns

Untransformed Data Analysis

Kruskal-Wallis test

P value	0.9074
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	6
Kruskal-Wallis statistic	1.549

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Data Point vs. Mission Bay	11.56	No	ns
Data Point vs. Oceanside	10.67	No	ns
Data Point vs. SD Bay - North	11.66	No	ns
Data Point vs. SD Bay - Central	8.056	No	ns
Data Point vs. SD Bay - South	13.46	No	ns
Mission Bay vs. Oceanside	-0.8889	No	ns
Mission Bay vs. SD Bay - North	0.1023	No	ns
Mission Bay vs. SD Bay - Central	-3.5	No	ns
Mission Bay vs. SD Bay - South	1.906	No	ns
Oceanside vs. SD Bay - North	0.9912	No	ns
Oceanside vs. SD Bay - Central	-2.611	No	ns
Oceanside vs. SD Bay - South	2.795	No	ns
SD Bay - North vs. SD Bay - Central	-3.602	No	ns
SD Bay - North vs. SD Bay - South	1.804	No	ns
SD Bay - Central vs. SD Bay - South	5.406	No	ns

Total Chlordanes

ANOVA summary (log transformed)

F	0.9139
P value	0.4773
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.06211

Brown-Forsythe test

F (DFn, DFd)	0.9139 (5, 69)
P value	0.4773
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.2168	-1.658 to 1.225	No	ns
Data Point vs. Oceanside	0.4203	-1.412 to 2.253	No	ns
Data Point vs. SD Bay - North	0.1393	-1.181 to 1.459	No	ns
Data Point vs. SD Bay - Central	-0.1044	-1.390 to 1.181	No	ns
Data Point vs. SD Bay - South	0.3544	-1.017 to 1.726	No	ns
Mission Bay vs. Oceanside	0.6371	-0.9624 to 2.237	No	ns
Mission Bay vs. SD Bay - North	0.356	-0.6148 to 1.327	No	ns
Mission Bay vs. SD Bay - Central	0.1124	-0.8111 to 1.036	No	ns
Mission Bay vs. SD Bay - South	0.5711	-0.4693 to 1.611	No	ns
Oceanside vs. SD Bay - North	-0.2811	-1.772 to 1.209	No	ns
Oceanside vs. SD Bay - Central	-0.5247	-1.985 to 0.9354	No	ns
Oceanside vs. SD Bay - South	-0.06595	-1.603 to 1.471	No	ns
SD Bay - North vs. SD Bay - Central	-0.2436	-0.9621 to 0.4748	No	ns
SD Bay - North vs. SD Bay - South	0.2151	-0.6485 to 1.079	No	ns
SD Bay - Central vs. SD Bay - South	0.4587	-0.3512 to 1.269	No	ns

Total PCBs

ANOVA summary (log transformed)

F	14.05
P value	< 0.0001
P value summary	****
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.5045

Brown-Forsythe test

F (DFn, DFd)	1.847 (5, 69)
P value	0.115
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.834	-0.5054 to 2.173	No	ns
Data Point vs. Oceanside	0.6155	-1.087 to 2.318	No	ns
Data Point vs. SD Bay - North	-1.45	-2.676 to -0.2235	Yes	*
Data Point vs. SD Bay - Central	-0.9204	-2.115 to 0.2738	No	ns
Data Point vs. SD Bay - South	-0.8599	-2.134 to 0.4146	No	ns
Mission Bay vs. Oceanside	-0.2185	-1.704 to 1.267	No	ns
Mission Bay vs. SD Bay - North	-2.284	-3.186 to -1.382	Yes	****
Mission Bay vs. SD Bay - Central	-1.754	-2.612 to -0.8964	Yes	****
Mission Bay vs. SD Bay - South	-1.694	-2.660 to -0.7273	Yes	****
Oceanside vs. SD Bay - North	-2.065	-3.450 to -0.6804	Yes	***
Oceanside vs. SD Bay - Central	-1.536	-2.892 to -0.1794	Yes	*
Oceanside vs. SD Bay - South	-1.475	-2.903 to -0.04770	Yes	*
SD Bay - North vs. SD Bay - Central	0.5293	-0.1381 to 1.197	No	ns
SD Bay - North vs. SD Bay - South	0.5898	-0.2124 to 1.392	No	ns
SD Bay - Central vs. SD Bay - South	0.0605	-0.6919 to 0.8129	No	ns

ERM-Q

ANOVA summary (log transformed)

F	2.6
P value	0.0326
P value summary	*

Are differences among means statistically significant? ($P < 0.05$)

Yes

R square 0.1585

Brown-Forsythe test

F (DFn, DFd)	0.8470 (5, 69)
P value	0.5212
P value summary	ns
Significantly different standard deviations? ($P < 0.05$)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1447	-0.3581 to 0.6475	No	ns
Data Point vs. Oceanside	-0.03154	-0.6706 to 0.6075	No	ns
Data Point vs. SD Bay - North	-0.1717	-0.6320 to 0.2886	No	ns
Data Point vs. SD Bay - Central	-0.09293	-0.5412 to 0.3554	No	ns
Data Point vs. SD Bay - South	0.1218	-0.3566 to 0.6003	No	ns
Mission Bay vs. Oceanside	-0.1762	-0.7341 to 0.3816	No	ns
Mission Bay vs. SD Bay - North	-0.3164	-0.6550 to 0.02219	No	ns
Mission Bay vs. SD Bay - Central	-0.2376	-0.5597 to 0.08445	No	ns
Mission Bay vs. SD Bay - South	-0.02285	-0.3857 to 0.3400	No	ns
Oceanside vs. SD Bay - North	-0.1402	-0.6600 to 0.3797	No	ns
Oceanside vs. SD Bay - Central	-0.06139	-0.5706 to 0.4478	No	ns
Oceanside vs. SD Bay - South	0.1534	-0.3826 to 0.6893	No	ns
SD Bay - North vs. SD Bay - Central	0.07879	-0.1718 to 0.3294	No	ns
SD Bay - North vs. SD Bay - South	0.2936	-0.007623 to 0.5947	No	ns
SD Bay - Central vs. SD Bay - South	0.2148	-0.06771 to 0.4972	No	ns

CSI

ANOVA summary (log transformed)

F	1.375
P value	0.2445
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.09059

Brown-Forsythe test

F (DFn, DFd)	1.310 (5, 69)
P value	0.27
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.04888	-0.1852 to 0.2829	No	ns
Data Point vs. Oceanside	0.02835	-0.2691 to 0.3258	No	ns
Data Point vs. SD Bay - North	-0.03764	-0.2519 to 0.1766	No	ns
Data Point vs. SD Bay - Central	-0.03489	-0.2435 to 0.1738	No	ns
Data Point vs. SD Bay - South	0.0554	-0.1673 to 0.2781	No	ns
Mission Bay vs. Oceanside	-0.02052	-0.2802 to 0.2391	No	ns
Mission Bay vs. SD Bay - North	-0.08652	-0.2441 to 0.07108	No	ns
Mission Bay vs. SD Bay - Central	-0.08377	-0.2337 to 0.06613	No	ns
Mission Bay vs. SD Bay - South	0.006519	-0.1624 to 0.1754	No	ns
Oceanside vs. SD Bay - North	-0.066	-0.3080 to 0.1760	No	ns
Oceanside vs. SD Bay - Central	-0.06325	-0.3003 to 0.1738	No	ns
Oceanside vs. SD Bay - South	0.02704	-0.2224 to 0.2765	No	ns
SD Bay - North vs. SD Bay - Central	0.002751	-0.1139 to 0.1194	No	ns
SD Bay - North vs. SD Bay - South	0.09304	-0.04714 to 0.2332	No	ns
SD Bay - Central vs. SD Bay - South	0.09029	-0.04119 to 0.2218	No	ns

Untransformed Data Analysis

Kruskal-Wallis test

P value	0.1699
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	6
Kruskal-Wallis statistic	7.762

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Data Point vs. Mission Bay	8.819	No	ns
Data Point vs. Oceanside	3.708	No	ns
Data Point vs. SD Bay - North	-7.178	No	ns
Data Point vs. SD Bay - Central	-5.884	No	ns
Data Point vs. SD Bay - South	9.26	No	ns
Mission Bay vs. Oceanside	-5.111	No	ns
Mission Bay vs. SD Bay - North	-16	No	ns
Mission Bay vs. SD Bay - Central	-14.7	No	ns
Mission Bay vs. SD Bay - South	0.4402	No	ns
Oceanside vs. SD Bay - North	-10.89	No	ns
Oceanside vs. SD Bay - Central	-9.593	No	ns
Oceanside vs. SD Bay - South	5.551	No	ns
SD Bay - North vs. SD Bay - Central	1.293	No	ns
SD Bay - North vs. SD Bay - South	16.44	No	ns
SD Bay - Central vs. SD Bay - South	15.14	No	ns

BRI

ANOVA summary

F	3.275
P value	0.0103
P value summary	*

Are differences among means
statistically significant? (P < 0.05)

Yes

R square

0.1918

Brown-Forsythe test

F (DFn, DFd)	0.5496 (5, 69)
P value	0.7381
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1337	0.0003072 to 0.2672	Yes	*
Data Point vs. Oceanside	0.09915	-0.07045 to 0.2687	No	ns
Data Point vs. SD Bay - North	0.08254	-0.03962 to 0.2047	No	ns
Data Point vs. SD Bay - Central	0.05806	-0.06091 to 0.1770	No	ns
Data Point vs. SD Bay - South	0.02209	-0.1049 to 0.1491	No	ns
Mission Bay vs. Oceanside	-0.0346	-0.1826 to 0.1134	No	ns
Mission Bay vs. SD Bay - North	-0.05121	-0.1411 to 0.03865	No	ns
Mission Bay vs. SD Bay - Central	-0.07569	-0.1612 to 0.009782	No	ns
Mission Bay vs. SD Bay - South	-0.1117	-0.2079 to -0.01536	Yes	*
Oceanside vs. SD Bay - North	-0.0166	-0.1546 to 0.1214	No	ns
Oceanside vs. SD Bay - Central	-0.04109	-0.1762 to 0.09405	No	ns
Oceanside vs. SD Bay - South	-0.07705	-0.2193 to 0.06518	No	ns
SD Bay - North vs. SD Bay - Central	-0.02448	-0.09098 to 0.04201	No	ns
SD Bay - North vs. SD Bay - South	-0.06045	-0.1404 to 0.01948	No	ns
SD Bay - Central vs. SD Bay - South	-0.03596	-0.1109 to 0.03900	No	ns

IBI

ANOVA summary (log transformed)

F	3.078
P value	0.0205
P value summary	*

Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2995

Brown-Forsythe test	
F (DFn, DFd)	1.732 (5, 36)
P value	0.1524
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.2594	-0.04831 to 0.5671	No	ns
Data Point vs. Oceanside	0.159	-0.1162 to 0.4342	No	ns
Data Point vs. SD Bay - North	0.2594	0.03750 to 0.4813	Yes	*
Data Point vs. SD Bay - Central	0.2038	-0.01064 to 0.4182	No	ns
Data Point vs. SD Bay - South	0.2594	0.03750 to 0.4813	Yes	*
Mission Bay vs. Oceanside	-0.1003	-0.4080 to 0.2073	No	ns
Mission Bay vs. SD Bay - North	0	-0.2611 to 0.2611	No	ns
Mission Bay vs. SD Bay - Central	-0.05558	-0.3104 to 0.1992	No	ns
Mission Bay vs. SD Bay - South	0	-0.2611 to 0.2611	No	ns
Oceanside vs. SD Bay - North	0.1003	-0.1215 to 0.3222	No	ns
Oceanside vs. SD Bay - Central	0.04476	-0.1697 to 0.2592	No	ns
Oceanside vs. SD Bay - South	0.1003	-0.1215 to 0.3222	No	ns
SD Bay - North vs. SD Bay - Central	-0.05558	-0.1951 to 0.08397	No	ns
SD Bay - North vs. SD Bay - South	0	-0.1507 to 0.1507	No	ns
SD Bay - Central vs. SD Bay - South	0.05558	-0.08397 to 0.1951	No	ns

Untransformed Data Analysis

Kruskal-Wallis test	
P value	0.0435
Exact or approximate P value?	Approximate
P value summary	*
Do the medians vary signif. (P < 0.05)	
Number of groups	6
Kruskal-Wallis statistic	11.43

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Data Point vs. Mission Bay	28.96	No	ns
Data Point vs. Oceanside	-4.542	No	ns
Data Point vs. SD Bay - North	18.47	No	ns
Data Point vs. SD Bay - Central	16.4	No	ns
Data Point vs. SD Bay - South	10.09	No	ns
Mission Bay vs. Oceanside	-33.5	No	ns
Mission Bay vs. SD Bay - North	-10.49	No	ns
Mission Bay vs. SD Bay - Central	-12.56	No	ns
Mission Bay vs. SD Bay - South	-18.87	No	ns
Oceanside vs. SD Bay - North	23.01	No	ns
Oceanside vs. SD Bay - Central	20.94	No	ns
Oceanside vs. SD Bay - South	14.63	No	ns
SD Bay - North vs. SD Bay - Central	-2.064	No	ns
SD Bay - North vs. SD Bay - South	-8.381	No	ns
SD Bay - Central vs. SD Bay - South	-6.316	No	ns

RBI

ANOVA summary (log transformed)

F	1.426
P value	0.2259
P value summary	ns

Are differences among means statistically significant? (P < 0.05)	No
R square	0.09365

Brown-Forsythe test

F (DFn, DFd)	1.136 (5, 69)
P value	0.3498
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.1103	-0.4835 to 0.2629	No	ns
Data Point vs. Oceanside	0.0875	-0.3868 to 0.5618	No	ns
Data Point vs. SD Bay - North	-0.1014	-0.4431 to 0.2402	No	ns
Data Point vs. SD Bay - Central	-0.05065	-0.3834 to 0.2821	No	ns
Data Point vs. SD Bay - South	0.06596	-0.2891 to 0.4211	No	ns
Mission Bay vs. Oceanside	0.1978	-0.2163 to 0.6118	No	ns
Mission Bay vs. SD Bay - North	0.00883	-0.2425 to 0.2601	No	ns
Mission Bay vs. SD Bay - Central	0.05963	-0.1794 to 0.2987	No	ns
Mission Bay vs. SD Bay - South	0.1762	-0.09306 to 0.4455	No	ns
Oceanside vs. SD Bay - North	-0.1889	-0.5748 to 0.1969	No	ns
Oceanside vs. SD Bay - Central	-0.1381	-0.5161 to 0.2398	No	ns
Oceanside vs. SD Bay - South	-0.02154	-0.4193 to 0.3762	No	ns
SD Bay - North vs. SD Bay - Central	0.0508	-0.1352 to 0.2368	No	ns
SD Bay - North vs. SD Bay - South	0.1674	-0.05613 to 0.3909	No	ns
SD Bay - Central vs. SD Bay - South	0.1166	-0.09304 to 0.3263	No	ns

Untransformed Data Analysis

Kruskal-Wallis test

P value	0.0907
Exact or approximate P value?	Approximate
P value summary	ns

Do the medians vary signif. (P < 0.05)	No
Number of groups	6
Kruskal-Wallis statistic	9.499

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Data Point vs. Mission Bay	-17.51	No	ns
Data Point vs. Oceanside	7.042	No	ns
Data Point vs. SD Bay - North	-12.86	No	ns
Data Point vs. SD Bay - Central	-10.68	No	ns
Data Point vs. SD Bay - South	4.413	No	ns
Mission Bay vs. Oceanside	24.56	No	ns
Mission Bay vs. SD Bay - North	4.652	No	ns
Mission Bay vs. SD Bay - Central	6.831	No	ns
Mission Bay vs. SD Bay - South	21.93	No	ns
Oceanside vs. SD Bay - North	-19.9	No	ns
Oceanside vs. SD Bay - Central	-17.72	No	ns
Oceanside vs. SD Bay - South	-2.628	No	ns
SD Bay - North vs. SD Bay - Central	2.179	No	ns
SD Bay - North vs. SD Bay - South	17.28	No	ns
SD Bay - Central vs. SD Bay - South	15.1	No	ns

RIVPACS

ANOVA summary (log transformed)

F	0.7765
P value	0.57
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.05327

Brown-Forsythe test

F (DFn, DFd)	0.9334 (5, 69)
P value	0.4649
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.1324	-0.4934 to 0.2285	No	ns
Data Point vs. Oceanside	-0.1007	-0.5595 to 0.3580	No	ns
Data Point vs. SD Bay - North	-0.1347	-0.4651 to 0.1957	No	ns
Data Point vs. SD Bay - Central	-0.144	-0.4658 to 0.1778	No	ns
Data Point vs. SD Bay - South	-0.03796	-0.3814 to 0.3055	No	ns
Mission Bay vs. Oceanside	0.03169	-0.3687 to 0.4321	No	ns
Mission Bay vs. SD Bay - North	-0.002284	-0.2453 to 0.2408	No	ns
Mission Bay vs. SD Bay - Central	-0.01155	-0.2427 to 0.2196	No	ns
Mission Bay vs. SD Bay - South	0.09448	-0.1660 to 0.3549	No	ns
Oceanside vs. SD Bay - North	-0.03398	-0.4071 to 0.3392	No	ns
Oceanside vs. SD Bay - Central	-0.04324	-0.4088 to 0.3223	No	ns
Oceanside vs. SD Bay - South	0.06278	-0.3219 to 0.4475	No	ns
SD Bay - North vs. SD Bay - Central	-0.009264	-0.1891 to 0.1706	No	ns
SD Bay - North vs. SD Bay - South	0.09676	-0.1194 to 0.3129	No	ns
SD Bay - Central vs. SD Bay - South	0.106	-0.09673 to 0.3088	No	ns

SWI

ANOVA summary (log transformed)

F	2.521
P value	0.0373
P value summary	*

Are differences among means
statistically significant? ($P < 0.05$)

Yes

R square 0.1545

Brown-Forsythe test

F (DFn, DFd)	0.5917 (5, 69)
P value	0.7063
P value summary	ns
Significantly different standard deviations? ($P < 0.05$)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.1276	-0.2947 to 0.03959	No	ns
Data Point vs. Oceanside	-0.08956	-0.3020 to 0.1229	No	ns
Data Point vs. SD Bay - North	-0.1119	-0.2649 to 0.04117	No	ns
Data Point vs. SD Bay - Central	-0.09462	-0.2437 to 0.05442	No	ns
Data Point vs. SD Bay - South	-0.02173	-0.1808 to 0.1373	No	ns
Mission Bay vs. Oceanside	0.03802	-0.1474 to 0.2235	No	ns
Mission Bay vs. SD Bay - North	0.01572	-0.09685 to 0.1283	No	ns
Mission Bay vs. SD Bay - Central	0.03296	-0.07411 to 0.1400	No	ns
Mission Bay vs. SD Bay - South	0.1058	-0.01478 to 0.2265	No	ns
Oceanside vs. SD Bay - North	-0.0223	-0.1951 to 0.1505	No	ns
Oceanside vs. SD Bay - Central	-0.00506	-0.1744 to 0.1642	No	ns
Oceanside vs. SD Bay - South	0.06783	-0.1104 to 0.2460	No	ns
SD Bay - North vs. SD Bay - Central	0.01724	-0.06606 to 0.1005	No	ns
SD Bay - North vs. SD Bay - South	0.09013	-0.01000 to 0.1903	No	ns
SD Bay - Central vs. SD Bay - South	0.07289	-0.02102 to 0.1668	No	ns

Integrated SQO Infauna

ANOVA summary (log trasnformed)

F	2.261
P value	0.0578
P value summary	ns

Are differences among means statistically significant? (P < 0.05)	No
R square	0.1408

Brown-Forsythe test	
F (DFn, DFd)	1.067 (5, 69)
P value	0.3862
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	0.1582	-0.1591 to 0.4756	No	ns
Data Point vs. Oceanside	-0.07337	-0.4767 to 0.3299	No	ns
Data Point vs. SD Bay - North	0.05179	-0.2387 to 0.3423	No	ns
Data Point vs. SD Bay - Central	0.0457	-0.2372 to 0.3286	No	ns
Data Point vs. SD Bay - South	-0.08356	-0.3855 to 0.2184	No	ns
Mission Bay vs. Oceanside	-0.2316	-0.5837 to 0.1204	No	ns
Mission Bay vs. SD Bay - North	-0.1065	-0.3201 to 0.1072	No	ns
Mission Bay vs. SD Bay - Central	-0.1125	-0.3158 to 0.09070	No	ns
Mission Bay vs. SD Bay - South	-0.2418	-0.4708 to -0.01283	Yes	*
Oceanside vs. SD Bay - North	0.1252	-0.2029 to 0.4532	No	ns
Oceanside vs. SD Bay - Central	0.1191	-0.2023 to 0.4404	No	ns
Oceanside vs. SD Bay - South	-0.01019	-0.3484 to 0.3280	No	ns
SD Bay - North vs. SD Bay - Central	-0.00609	-0.1642 to 0.1520	No	ns
SD Bay - North vs. SD Bay - South	-0.1354	-0.3254 to 0.05472	No	ns
SD Bay - Central vs. SD Bay - South	-0.1293	-0.3075 to 0.04900	No	ns

Untransformed Data Analysis

Kruskal-Wallis test	
P value	0.0657
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	6
Kruskal-Wallis statistic	10.36

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Data Point vs. Mission Bay	18.82	No	ns
Data Point vs. Oceanside	-6.458	No	ns
Data Point vs. SD Bay - North	7.928	No	ns
Data Point vs. SD Bay - Central	5.949	No	ns
Data Point vs. SD Bay - South	-7.356	No	ns
Mission Bay vs. Oceanside	-25.28	No	ns
Mission Bay vs. SD Bay - North	-10.89	No	ns
Mission Bay vs. SD Bay - Central	-12.87	No	ns
Mission Bay vs. SD Bay - South	-26.18	No	ns
Oceanside vs. SD Bay - North	14.39	No	ns
Oceanside vs. SD Bay - Central	12.41	No	ns
Oceanside vs. SD Bay - South	-0.8974	No	ns
SD Bay - North vs. SD Bay - Central	-1.979	No	ns
SD Bay - North vs. SD Bay - South	-15.28	No	ns
SD Bay - Central vs. SD Bay - South	-13.3	No	ns

Taxa Abundance

ANOVA summary (log transformed)

F	4.714
P value	0.0009
P value summary	***

Are differences among means statistically significant? (P < 0.05)

Yes

R square

0.2546

Brown-Forsythe test

F (DFn, DFd)	0.9275 (5, 69)
P value	0.4686
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.7743	-1.423 to -0.1256	Yes	*
Data Point vs. Oceanside	0.04697	-0.7775 to 0.8714	No	ns
Data Point vs. SD Bay - North	-0.2793	-0.8732 to 0.3145	No	ns
Data Point vs. SD Bay - Central	-0.164	-0.7424 to 0.4143	No	ns
Data Point vs. SD Bay - South	-0.2361	-0.8533 to 0.3811	No	ns
Mission Bay vs. Oceanside	0.8212	0.1016 to 1.541	Yes	*
Mission Bay vs. SD Bay - North	0.4949	0.05813 to 0.9318	Yes	*
Mission Bay vs. SD Bay - Central	0.6102	0.1947 to 1.026	Yes	***
Mission Bay vs. SD Bay - South	0.5381	0.07004 to 1.006	Yes	*
Oceanside vs. SD Bay - North	-0.3263	-0.9969 to 0.3443	No	ns
Oceanside vs. SD Bay - Central	-0.211	-0.8680 to 0.4459	No	ns
Oceanside vs. SD Bay - South	-0.2831	-0.9745 to 0.4083	No	ns
SD Bay - North vs. SD Bay - Central	0.1153	-0.2080 to 0.4385	No	ns
SD Bay - North vs. SD Bay - South	0.0432	-0.3453 to 0.4317	No	ns
SD Bay - Central vs. SD Bay - South	-0.07209	-0.4365 to 0.2923	No	ns

Taxa Richness

ANOVA summary (log transformed)

F	3.93
P value	0.0034
P value summary	**
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2217

Brown-Forsythe test

F (DFn, DFd)	2.220 (5, 69)
P value	0.0619
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Data Point vs. Mission Bay	-0.4301	-0.8134 to -0.04683	Yes	*
Data Point vs. Oceanside	-0.1148	-0.6019 to 0.3724	No	ns
Data Point vs. SD Bay - North	-0.2328	-0.5837 to 0.1181	No	ns
Data Point vs. SD Bay - Central	-0.1359	-0.4777 to 0.2058	No	ns
Data Point vs. SD Bay - South	-0.08405	-0.4488 to 0.2807	No	ns
Mission Bay vs. Oceanside	0.3154	-0.1099 to 0.7406	No	ns
Mission Bay vs. SD Bay - North	0.1973	-0.06079 to 0.4554	No	ns
Mission Bay vs. SD Bay - Central	0.2942	0.04868 to 0.5397	Yes	**
Mission Bay vs. SD Bay - South	0.3461	0.06948 to 0.6227	Yes	**
Oceanside vs. SD Bay - North	-0.118	-0.5143 to 0.2782	No	ns
Oceanside vs. SD Bay - Central	-0.02117	-0.4094 to 0.3670	No	ns
Oceanside vs. SD Bay - South	0.03072	-0.3778 to 0.4393	No	ns
SD Bay - North vs. SD Bay - Central	0.09687	-0.09414 to 0.2879	No	ns
SD Bay - North vs. SD Bay - South	0.1488	-0.08084 to 0.3783	No	ns
SD Bay - Central vs. SD Bay - South	0.05188	-0.1634 to 0.2672	No	ns

% Dominant Species

ANOVA summary (log transformed)

F	2.241
P value	0.0598
P value summary	ns
Are diff. among means stat. signif? (P < 0.05)	No
R square	0.1397

Brown-Forsythe test

F (DFn, DFd)	0.9305 (5, 69)
P value	0.4668
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	-0.009643	-0.3686 to 0.3494	No	ns
Dana Point vs. Mission Bay	0.04764	-0.2348 to 0.3301	No	ns
Dana Point vs. SD Bay - North	0.1522	-0.1064 to 0.4108	No	ns
Dana Point vs. SD Bay - Central	0.0785	-0.1733 to 0.3303	No	ns
Dana Point vs. SD Bay - South	-0.02406	-0.2928 to 0.2447	No	ns
Oceanside vs. Mission Bay	0.05728	-0.2561 to 0.3706	No	ns
Oceanside vs. SD Bay - North	0.1618	-0.1302 to 0.4539	No	ns
Oceanside vs. SD Bay - Central	0.08814	-0.1979 to 0.3742	No	ns
Oceanside vs. SD Bay - South	-0.01442	-0.3155 to 0.2867	No	ns
Mission Bay vs. SD Bay - North	0.1046	-0.08565 to 0.2948	No	ns
Mission Bay vs. SD Bay - Central	0.03086	-0.1501 to 0.2118	No	ns
Mission Bay vs. SD Bay - South	-0.0717	-0.2755 to 0.1321	No	ns
SD Bay - North vs. SD Bay - Central	-0.07369	-0.2144 to 0.06706	No	ns
SD Bay - North vs. SD Bay - South	-0.1763	-0.3454 to -0.007066	Yes	*
SD Bay - Central vs. SD Bay - South	-0.1026	-0.2612 to 0.05612	No	ns

% Sensitive Species

ANOVA summary (log transformed)

F	1.306
P value	0.2719
P value summary	ns
Are diff. among means stat. signif? (P < 0.05)	No
R square	0.08882

Brown-Forsythe test

F (DFn, DFd)	1.677 (5, 67)
P value	0.1521
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	0.2116	-0.1676 to 0.5908	No	ns
Dana Point vs. Mission Bay	-0.04482	-0.3544 to 0.2648	No	ns
Dana Point vs. SD Bay - North	0.02067	-0.2679 to 0.3092	No	ns
Dana Point vs. SD Bay - Central	0.02283	-0.2604 to 0.3060	No	ns
Dana Point vs. SD Bay - South	0.05686	-0.2406 to 0.3543	No	ns
Oceanside vs. Mission Bay	-0.2564	-0.5660 to 0.05318	No	ns
Oceanside vs. SD Bay - North	-0.1909	-0.4795 to 0.09759	No	ns
Oceanside vs. SD Bay - Central	-0.1888	-0.4720 to 0.09440	No	ns
Oceanside vs. SD Bay - South	-0.1547	-0.4522 to 0.1427	No	ns
Mission Bay vs. SD Bay - North	0.0655	-0.1224 to 0.2534	No	ns
Mission Bay vs. SD Bay - Central	0.06765	-0.1120 to 0.2473	No	ns
Mission Bay vs. SD Bay - South	0.1017	-0.09970 to 0.3031	No	ns
SD Bay - North vs. SD Bay - Central	0.002152	-0.1380 to 0.1423	No	ns
SD Bay - North vs. SD Bay - South	0.03619	-0.1310 to 0.2034	No	ns
SD Bay - Central vs. SD Bay - South	0.03404	-0.1237 to 0.1918	No	ns

% Dom Top 3% Dominant Species

ANOVA summary (log transformed)

F	4.357
P value	0.0017
P value summary	**
Are diff. among means stat. signif? (P < 0.05)	Yes
R square	0.24

Brown-Forsythe test

F (DFn, DFd)	0.2625 (5, 69)
P value	0.932
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	0.08707	-0.1337 to 0.3078	No	ns
Dana Point vs. Mission Bay	0.1505	-0.02318 to 0.3242	No	ns
Dana Point vs. SD Bay - North	0.1834	0.02439 to 0.3424	Yes	*
Dana Point vs. SD Bay - Central	0.1376	-0.01723 to 0.2925	No	ns
Dana Point vs. SD Bay - South	0.05152	-0.1138 to 0.2168	No	ns
Oceanside vs. Mission Bay	0.06346	-0.1292 to 0.2562	No	ns
Oceanside vs. SD Bay - North	0.09634	-0.08324 to 0.2759	No	ns
Oceanside vs. SD Bay - Central	0.05057	-0.1253 to 0.2265	No	ns
Oceanside vs. SD Bay - South	-0.03555	-0.2207 to 0.1496	No	ns
Mission Bay vs. SD Bay - North	0.03289	-0.08408 to 0.1499	No	ns
Mission Bay vs. SD Bay - Central	-0.01289	-0.1241 to 0.09837	No	ns
Mission Bay vs. SD Bay - South	-0.09901	-0.2244 to 0.02634	No	ns
SD Bay - North vs. SD Bay - Central	-0.04577	-0.1323 to 0.04079	No	ns
SD Bay - North vs. SD Bay - South	-0.1319	-0.2359 to -0.02785	Yes	**
SD Bay - Central vs. SD Bay - South	-0.08612	-0.1837 to 0.01146	No	ns

% Polychaete Taxa

ANOVA summary (log transformed)

F	2.054
P value	0.0817
P value summary	ns
Are diff. among means stat. signif? (P < 0.05)	No
R square	0.1296

Brown-Forsythe test

F (DFn, DFd)	2.114 (5, 69)
P value	0.074
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	0.004357	-0.3975 to 0.4062	No	ns
Dana Point vs. Mission Bay	-0.005605	-0.3218 to 0.3106	No	ns
Dana Point vs. SD Bay - North	-0.1009	-0.3904 to 0.1886	No	ns
Dana Point vs. SD Bay - Central	-0.1822	-0.4641 to 0.09968	No	ns
Dana Point vs. SD Bay - South	-0.09459	-0.3954 to 0.2063	No	ns
Oceanside vs. Mission Bay	-0.009962	-0.3608 to 0.3408	No	ns
Oceanside vs. SD Bay - North	-0.1053	-0.4322 to 0.2216	No	ns
Oceanside vs. SD Bay - Central	-0.1866	-0.5068 to 0.1336	No	ns
Oceanside vs. SD Bay - South	-0.09894	-0.4360 to 0.2381	No	ns
Mission Bay vs. SD Bay - North	-0.09529	-0.3082 to 0.1176	No	ns
Mission Bay vs. SD Bay - Central	-0.1766	-0.3792 to 0.02590	No	ns
Mission Bay vs. SD Bay - South	-0.08898	-0.3172 to 0.1392	No	ns
SD Bay - North vs. SD Bay - Central	-0.08134	-0.2389 to 0.07623	No	ns
SD Bay - North vs. SD Bay - South	0.006312	-0.1831 to 0.1957	No	ns
SD Bay - Central vs. SD Bay - South	0.08765	-0.08998 to 0.2653	No	ns

% Polychaete Indiv

ANOVA summary (log transformed)

F	2.046
P value	0.0829
P value summary	ns
Are diff. among means stat. signif? (P < 0.05)	No
R square	0.1291

Brown-Forsythe test

F (DFn, DFd)	1.764 (5, 69)
P value	0.1317
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	0.359	-0.2263 to 0.9443	No	ns
Dana Point vs. Mission Bay	0.1673	-0.2932 to 0.6278	No	ns
Dana Point vs. SD Bay - North	-0.00144	-0.4230 to 0.4201	No	ns
Dana Point vs. SD Bay - Central	-0.04487	-0.4554 to 0.3657	No	ns
Dana Point vs. SD Bay - South	-0.03571	-0.4739 to 0.4025	No	ns
Oceanside vs. Mission Bay	-0.1917	-0.7026 to 0.3192	No	ns
Oceanside vs. SD Bay - North	-0.3604	-0.8365 to 0.1157	No	ns
Oceanside vs. SD Bay - Central	-0.4039	-0.8703 to 0.06251	No	ns
Oceanside vs. SD Bay - South	-0.3947	-0.8856 to 0.09614	No	ns
Mission Bay vs. SD Bay - North	-0.1688	-0.4789 to 0.1414	No	ns
Mission Bay vs. SD Bay - Central	-0.2122	-0.5071 to 0.08279	No	ns
Mission Bay vs. SD Bay - South	-0.203	-0.5353 to 0.1293	No	ns
SD Bay - North vs. SD Bay - Central	-0.04343	-0.2729 to 0.1861	No	ns
SD Bay - North vs. SD Bay - South	-0.03427	-0.3101 to 0.2416	No	ns
SD Bay - Central vs. SD Bay - South	0.009161	-0.2495 to 0.2679	No	ns

% Bivalve Taxa

ANOVA summary (log transformed)

F	1.523
P value	0.1941
P value summary	ns
Are diff. among means stat. signif? (P < 0.05)	No
R square	0.1007

Brown-Forsythe test

F (DFn, DFd)	0.7040 (5, 68)
P value	0.6224
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	0.04867	-0.4347 to 0.5321	No	ns
Dana Point vs. Mission Bay	0.3149	-0.06546 to 0.6952	No	ns
Dana Point vs. SD Bay - North	0.1571	-0.1910 to 0.5053	No	ns
Dana Point vs. SD Bay - Central	0.1615	-0.1784 to 0.5014	No	ns
Dana Point vs. SD Bay - South	0.1798	-0.1821 to 0.5417	No	ns
Oceanside vs. Mission Bay	0.2662	-0.1557 to 0.6881	No	ns
Oceanside vs. SD Bay - North	0.1085	-0.2847 to 0.5017	No	ns
Oceanside vs. SD Bay - Central	0.1128	-0.2731 to 0.4988	No	ns
Oceanside vs. SD Bay - South	0.1311	-0.2743 to 0.5365	No	ns
Mission Bay vs. SD Bay - North	-0.1577	-0.4138 to 0.09837	No	ns
Mission Bay vs. SD Bay - Central	-0.1533	-0.3981 to 0.09143	No	ns
Mission Bay vs. SD Bay - South	-0.1351	-0.4095 to 0.1394	No	ns
SD Bay - North vs. SD Bay - Central	0.004385	-0.1866 to 0.1954	No	ns
SD Bay - North vs. SD Bay - South	0.02265	-0.2052 to 0.2505	No	ns
SD Bay - Central vs. SD Bay - South	0.01826	-0.1967 to 0.2332	No	ns

% Bivalve Indiv

ANOVA summary (log transformed)

F	5.518
P value	0.0003
P value summary	***
Are diff. among means stat. signif? (P < 0.05)	Yes
R square	0.2886

Brown-Forsythe test

F (DFn, DFd)	0.5637 (5, 68)
P value	0.7274
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	-0.2241	-1.268 to 0.8202	No	ns
Dana Point vs. Mission Bay	0.7757	-0.04602 to 1.597	No	ns
Dana Point vs. SD Bay - North	0.1728	-0.5794 to 0.9250	No	ns
Dana Point vs. SD Bay - Central	-0.1161	-0.8504 to 0.6183	No	ns
Dana Point vs. SD Bay - South	0.2523	-0.5295 to 1.034	No	ns
Oceanside vs. Mission Bay	0.9998	0.08822 to 1.911	Yes	*
Oceanside vs. SD Bay - North	0.3969	-0.4526 to 1.246	No	ns
Oceanside vs. SD Bay - Central	0.1081	-0.7257 to 0.9418	No	ns
Oceanside vs. SD Bay - South	0.4764	-0.3994 to 1.352	No	ns
Mission Bay vs. SD Bay - North	-0.6029	-1.156 to -0.04956	Yes	*
Mission Bay vs. SD Bay - Central	-0.8917	-1.421 to -0.3629	Yes	****
Mission Bay vs. SD Bay - South	-0.5234	-1.116 to 0.06956	No	ns
SD Bay - North vs. SD Bay - Central	-0.2889	-0.7016 to 0.1238	No	ns
SD Bay - North vs. SD Bay - South	0.0795	-0.4127 to 0.5717	No	ns
SD Bay - Central vs. SD Bay - South	0.3684	-0.09611 to 0.8328	No	ns

Total # Distinct Taxa

ANOVA summary (log transformed)

F	3.77
P value	0.0045
P value summary	**
Are diff. among means stat. signif? (P < 0.05)	Yes
R square	0.2146

Brown-Forsythe test

F (DFn, DFd)	2.273 (5, 69)
P value	0.0567
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	-0.1502	-0.6300 to 0.3296	No	ns
Dana Point vs. Mission Bay	-0.4577	-0.8351 to -0.08017	Yes	**
Dana Point vs. SD Bay - North	-0.271	-0.6166 to 0.07459	No	ns
Dana Point vs. SD Bay - Central	-0.1893	-0.5258 to 0.1473	No	ns
Dana Point vs. SD Bay - South	-0.1442	-0.5034 to 0.2150	No	ns
Oceanside vs. Mission Bay	-0.3075	-0.7262 to 0.1113	No	ns
Oceanside vs. SD Bay - North	-0.1208	-0.5110 to 0.2695	No	ns
Oceanside vs. SD Bay - Central	-0.03906	-0.4214 to 0.3432	No	ns
Oceanside vs. SD Bay - South	0.005999	-0.3964 to 0.4083	No	ns
Mission Bay vs. SD Bay - North	0.1867	-0.06752 to 0.4409	No	ns
Mission Bay vs. SD Bay - Central	0.2684	0.02661 to 0.5102	Yes	*
Mission Bay vs. SD Bay - South	0.3135	0.04106 to 0.5858	Yes	*
SD Bay - North vs. SD Bay - Central	0.08172	-0.1064 to 0.2698	No	ns
SD Bay - North vs. SD Bay - South	0.1268	-0.09931 to 0.3529	No	ns
SD Bay - Central vs. SD Bay - South	0.04506	-0.1670 to 0.2571	No	ns

Total # Indiv.

ANOVA summary (log transformed)

F	4.714
P value	0.0009
P value summary	***
Are diff. among means stat. signif? (P < 0.05)	Yes
R square	0.2546

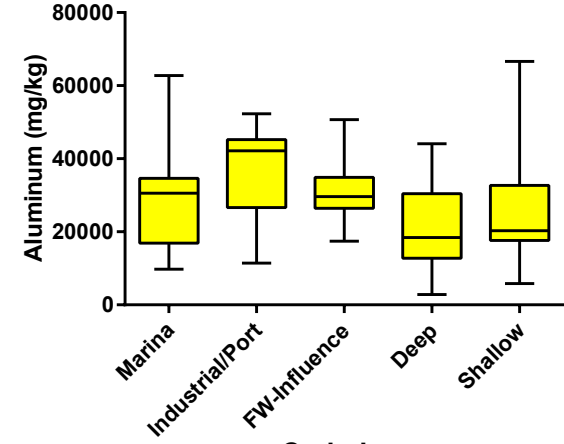
Brown-Forsythe test

F (DFn, DFd)	0.9275 (5, 69)
P value	0.4686
P value summary	ns
Signif. Diff. standard dev.? (P < 0.05)	No

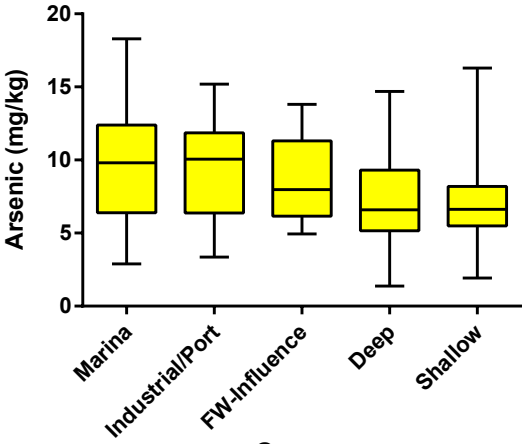
Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Dana Point vs. Oceanside	0.04697	-0.7775 to 0.8714	No	ns
Dana Point vs. Mission Bay	-0.7743	-1.423 to -0.1256	Yes	*
Dana Point vs. SD Bay - North	-0.2793	-0.8732 to 0.3145	No	ns
Dana Point vs. SD Bay - Central	-0.164	-0.7424 to 0.4143	No	ns
Dana Point vs. SD Bay - South	-0.2361	-0.8533 to 0.3811	No	ns
Oceanside vs. Mission Bay	-0.8212	-1.541 to -0.1016	Yes	*
Oceanside vs. SD Bay - North	-0.3263	-0.9969 to 0.3443	No	ns
Oceanside vs. SD Bay - Central	-0.211	-0.8680 to 0.4459	No	ns
Oceanside vs. SD Bay - South	-0.2831	-0.9745 to 0.4083	No	ns
Mission Bay vs. SD Bay - North	0.4949	0.05813 to 0.9318	Yes	*
Mission Bay vs. SD Bay - Central	0.6102	0.1947 to 1.026	Yes	***
Mission Bay vs. SD Bay - South	0.5381	0.07004 to 1.006	Yes	*
SD Bay - North vs. SD Bay - Central	0.1153	-0.2080 to 0.4385	No	ns
SD Bay - North vs. SD Bay - South	0.0432	-0.3453 to 0.4317	No	ns
SD Bay - Central vs. SD Bay - South	-0.07209	-0.4365 to 0.2923	No	ns

Summary Box Plots and Statistical Comparisons by Strata

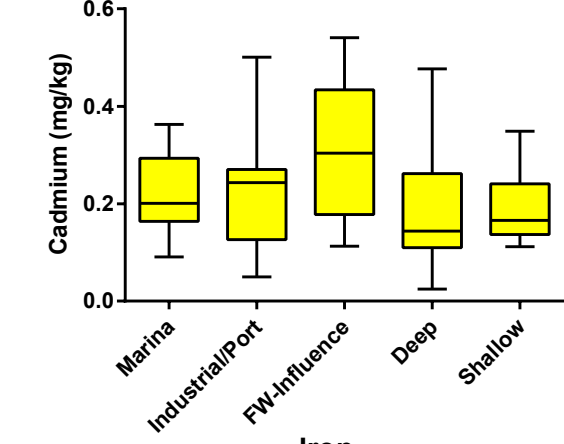
Aluminum



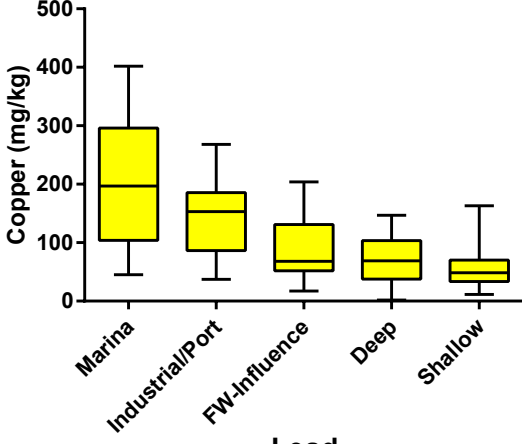
Arsenic



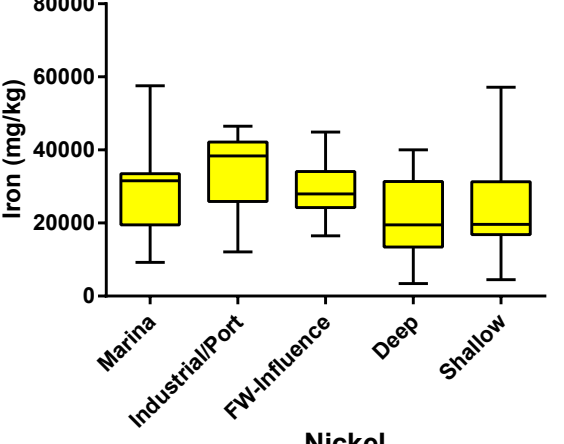
Cadmium



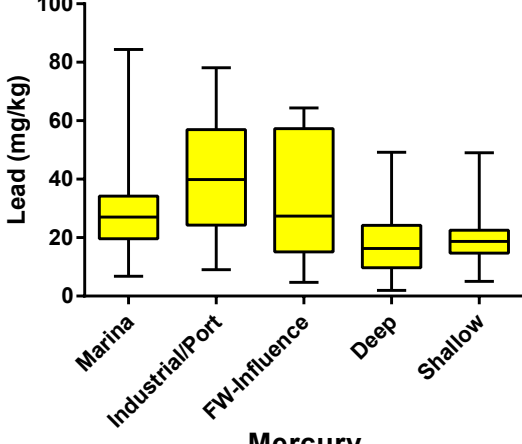
Copper



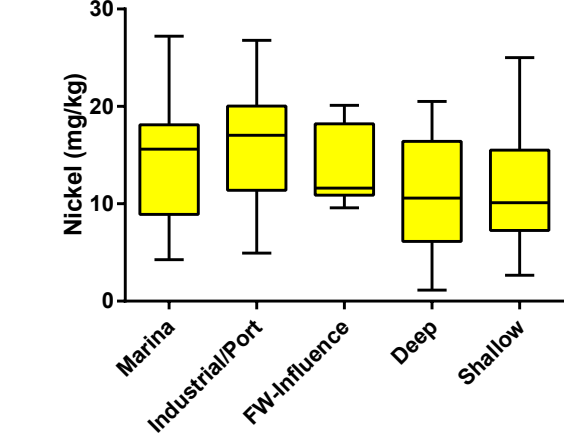
Iron



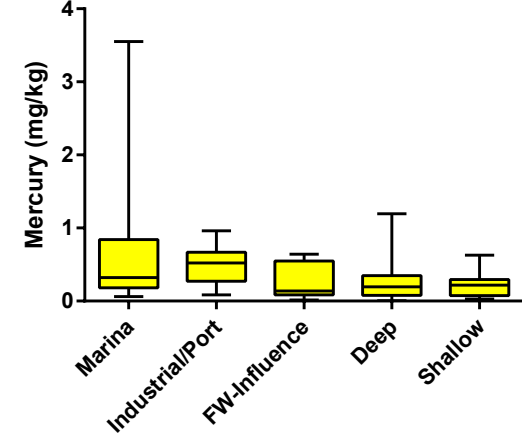
Lead



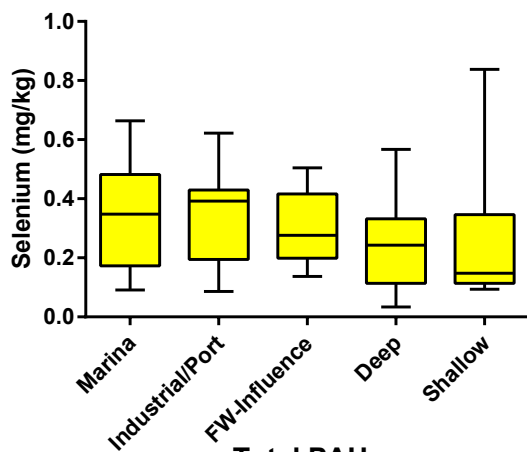
Nickel



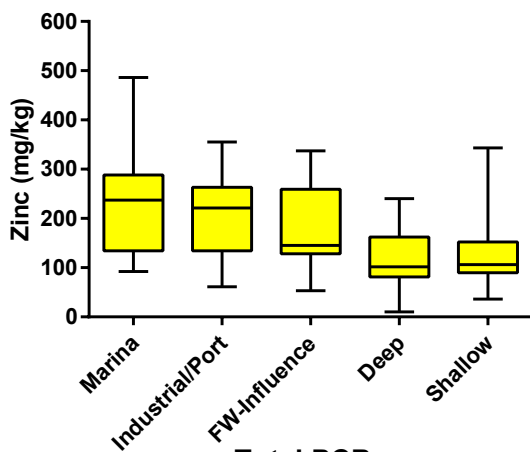
Mercury



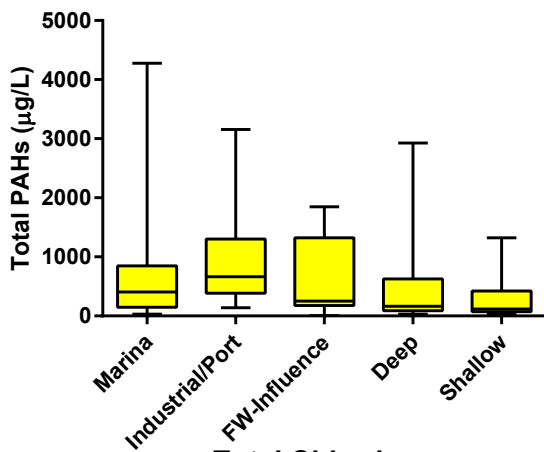
Selenium



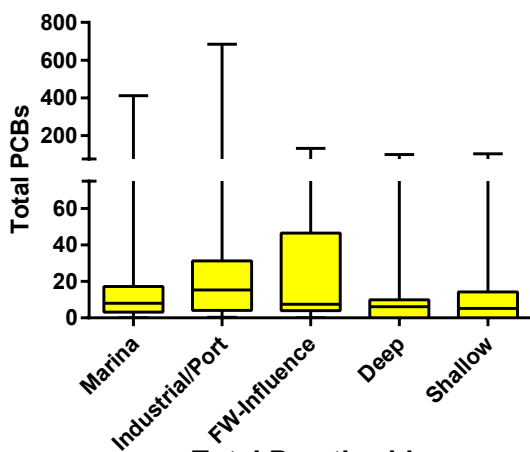
Zinc



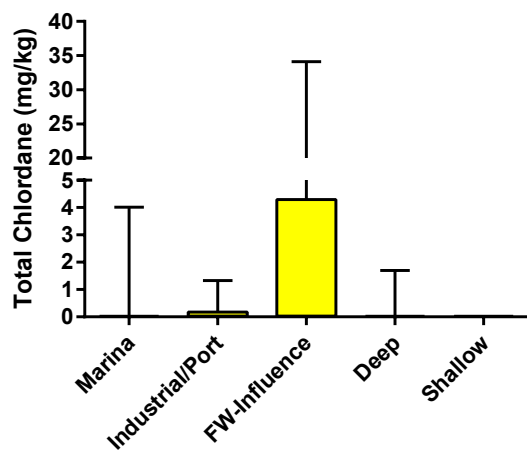
Total PAHs



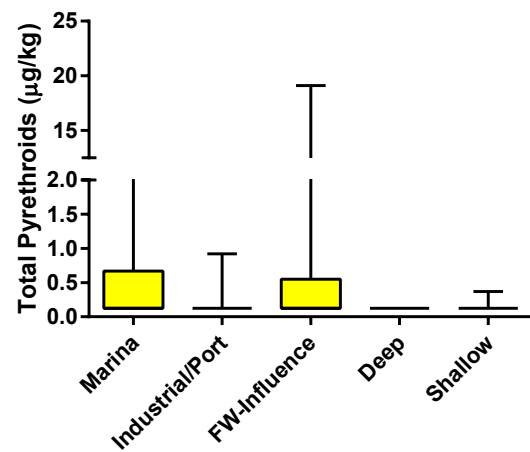
Total PCBs



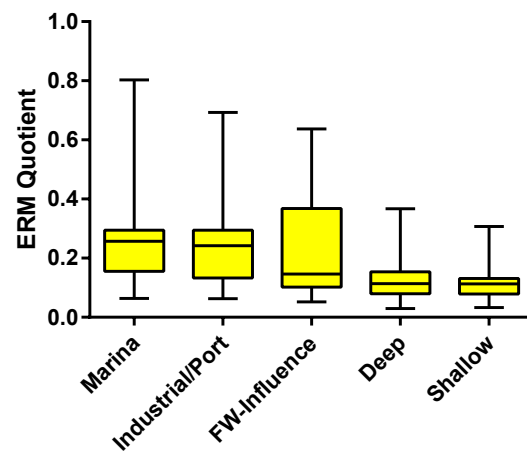
Total Chlordane



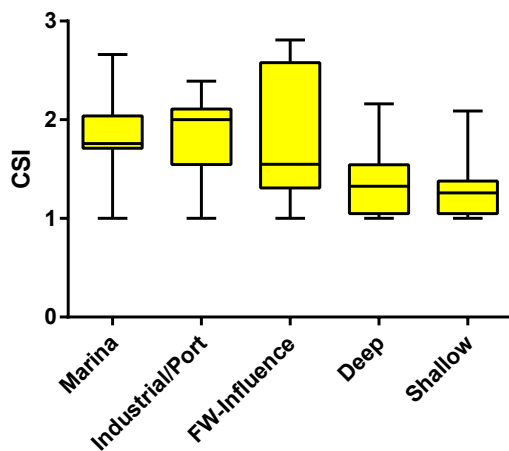
Total Pyrethroids



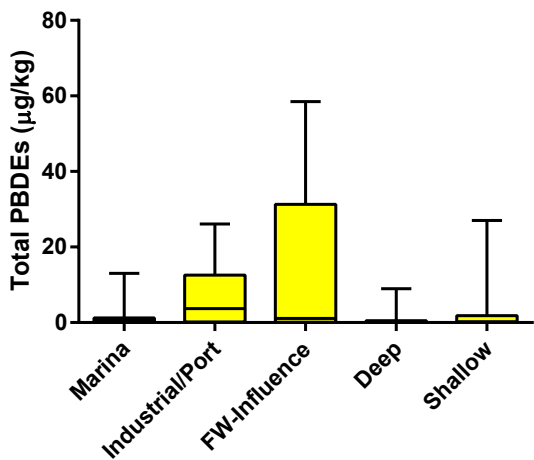
ERM-Q



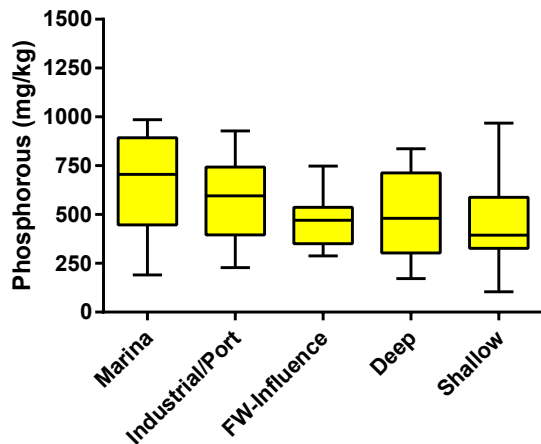
CSI Index



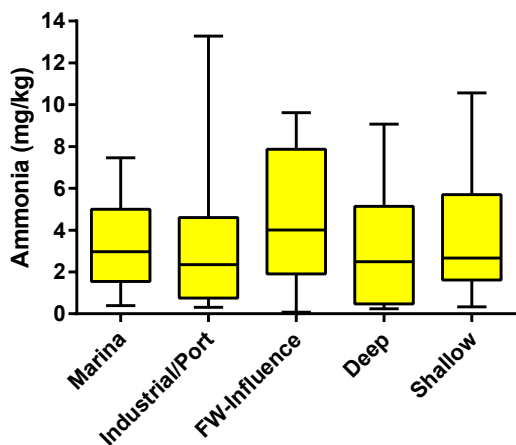
PBDEs



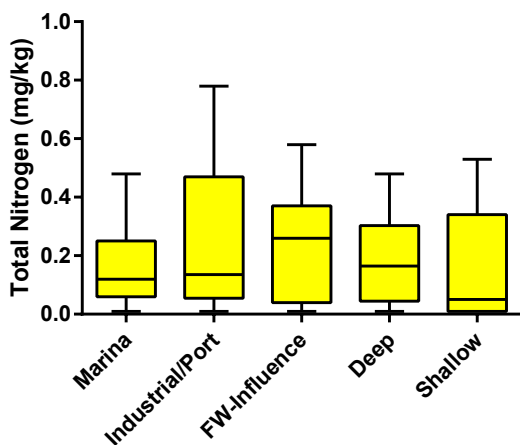
Phosphorous



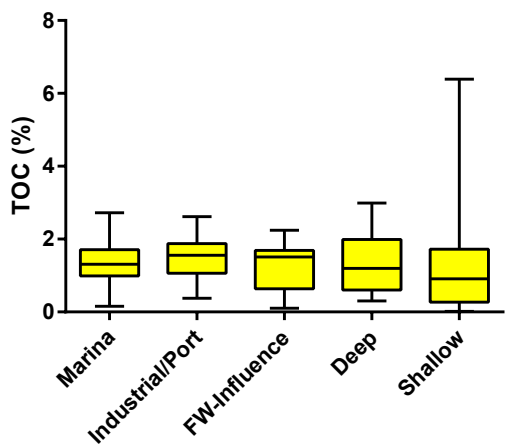
Ammonia



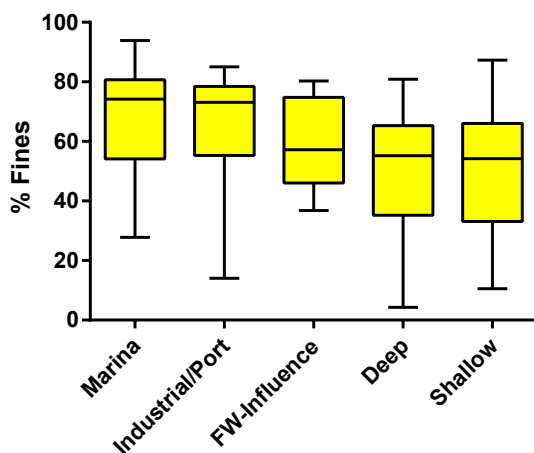
Total N

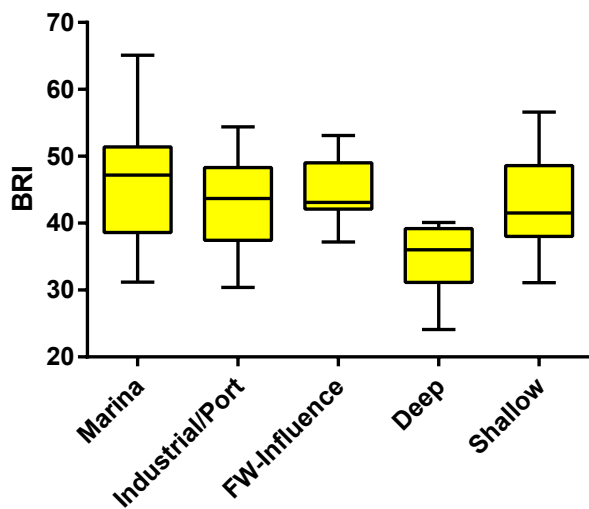
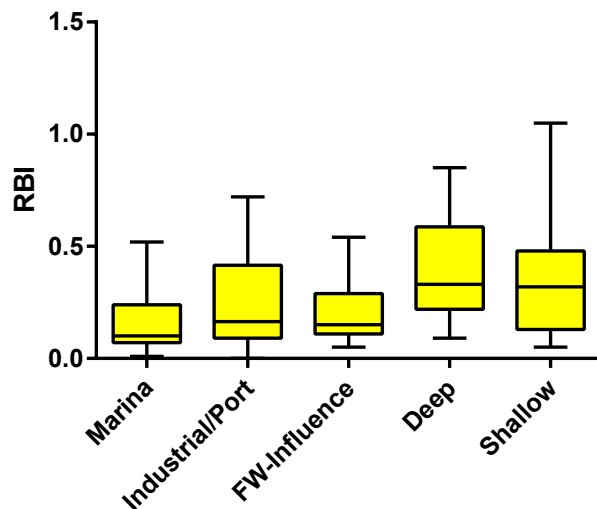
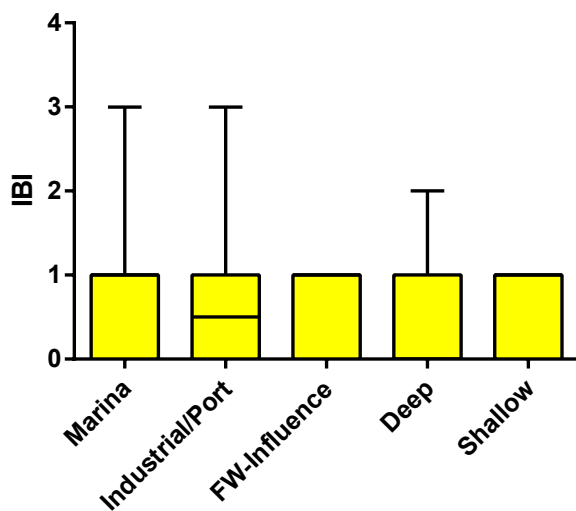
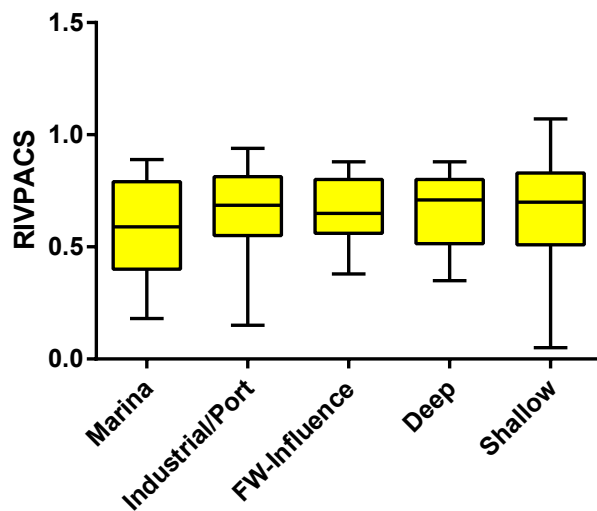
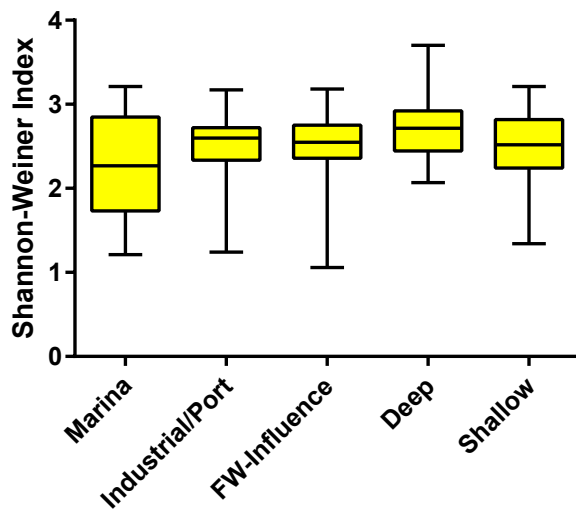
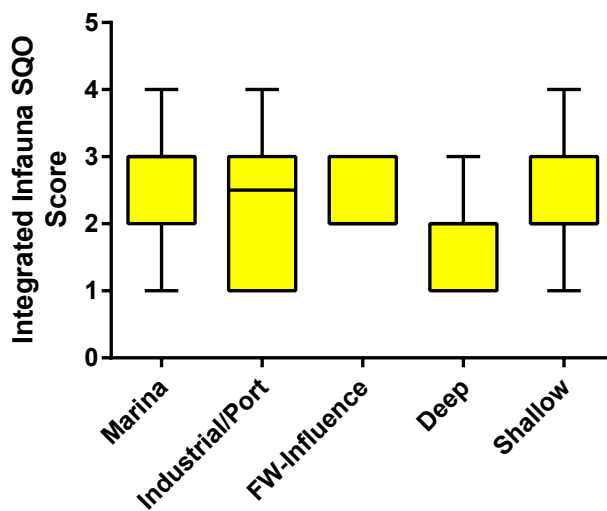


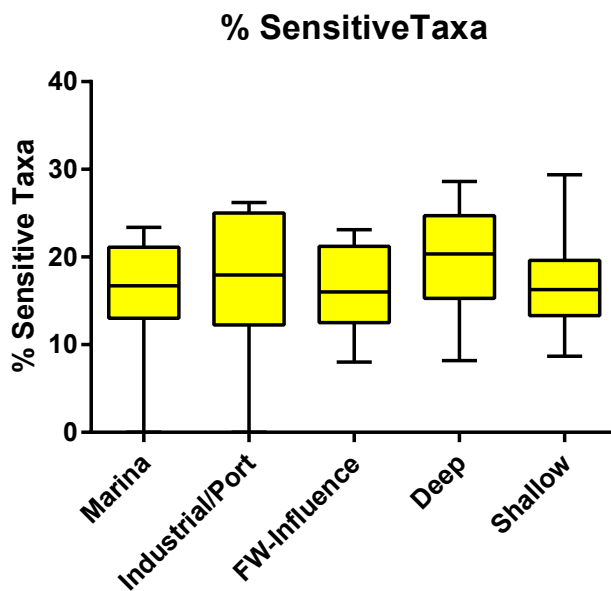
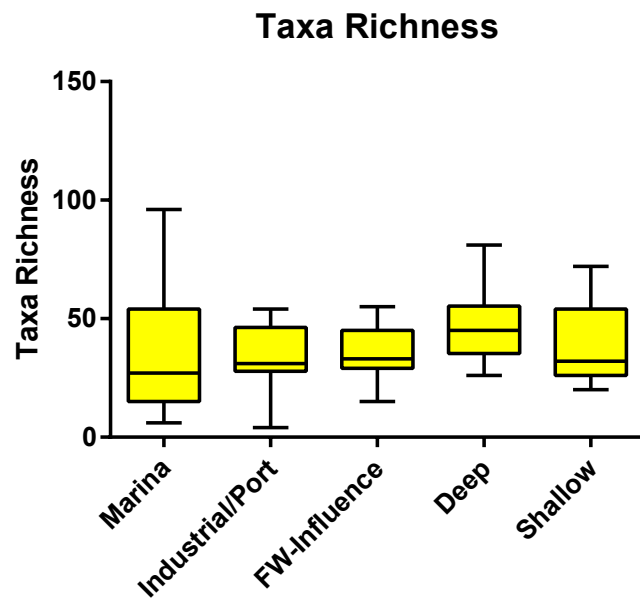
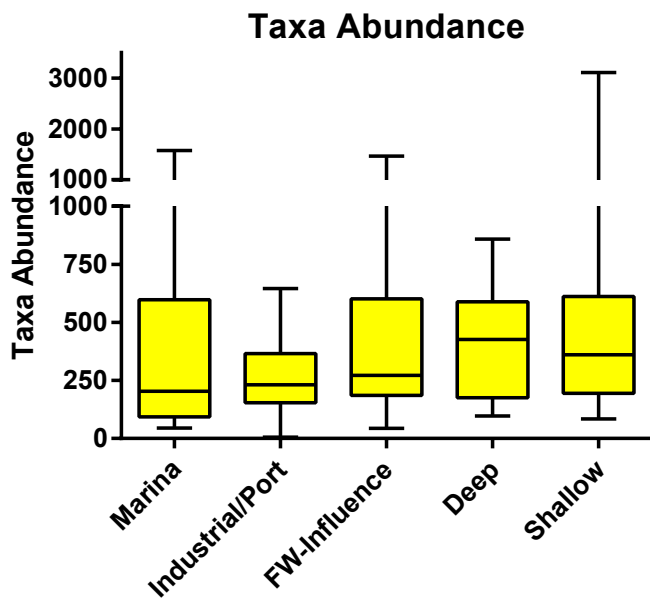
TOC



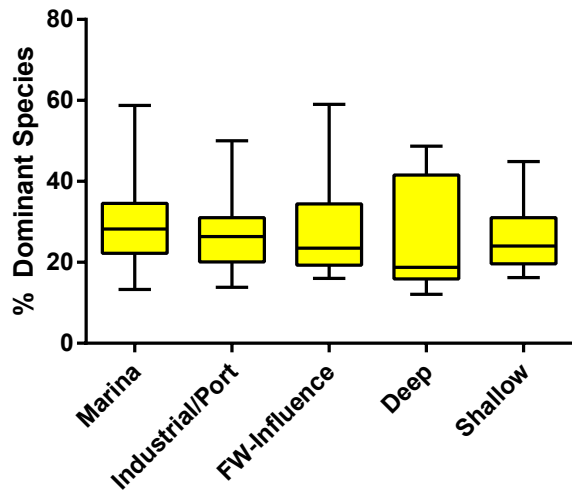
% Fines (Silt + Clay)



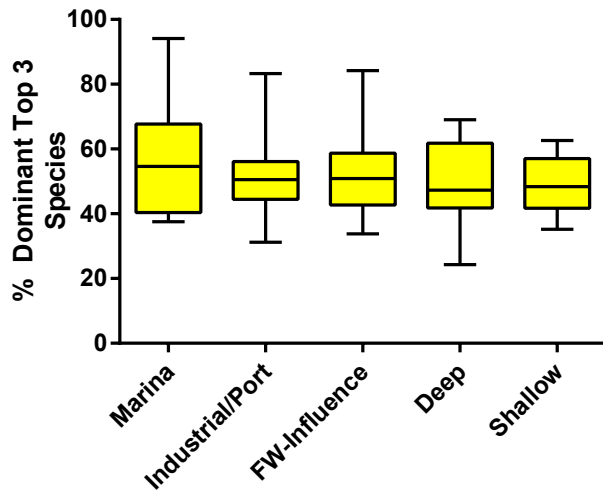
BRI**RBI****IBI****RIVPACS****SWI****Intergated Infauna SQO**



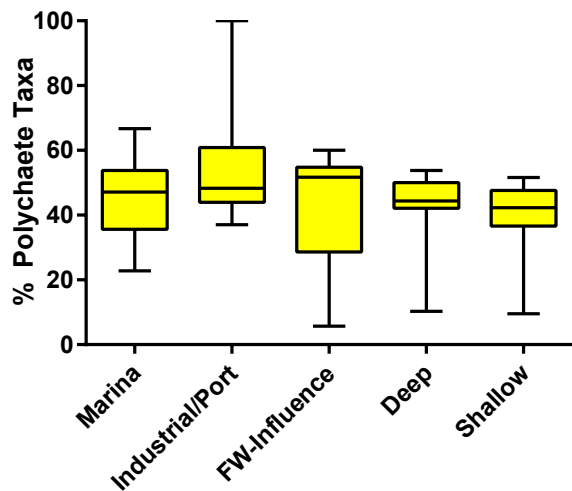
% Dominant Species



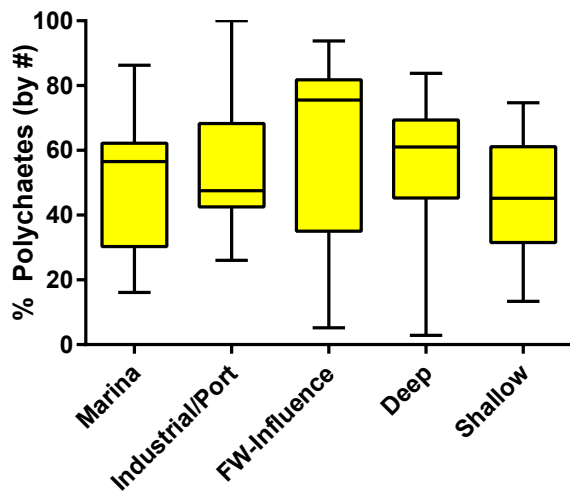
% Dominant - Top 3% Species



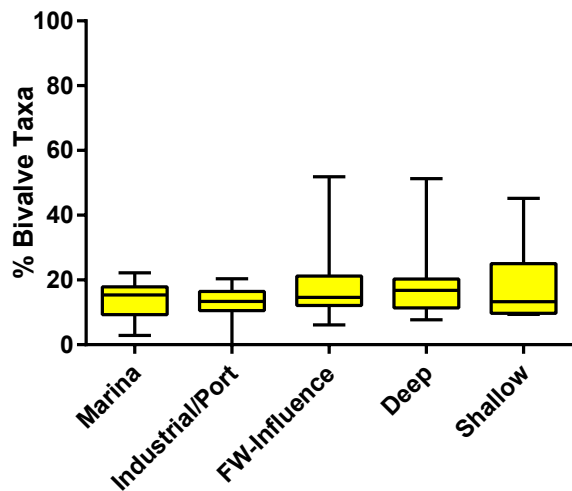
% Polychaete Taxa



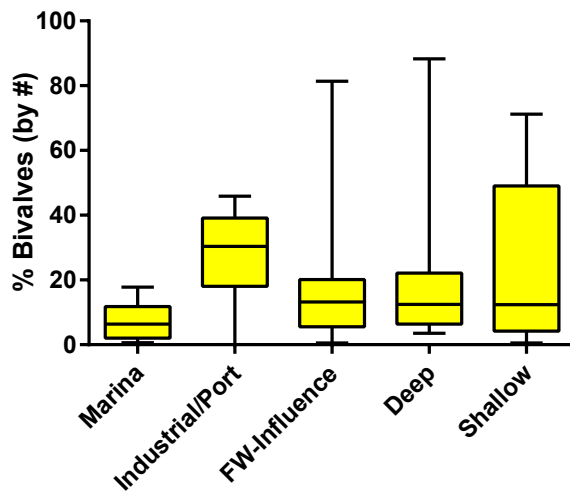
% Polychaetes (by #)



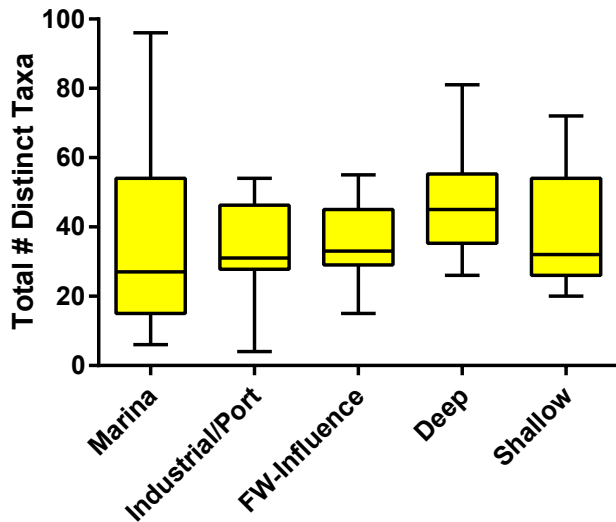
% Bivalve Taxa



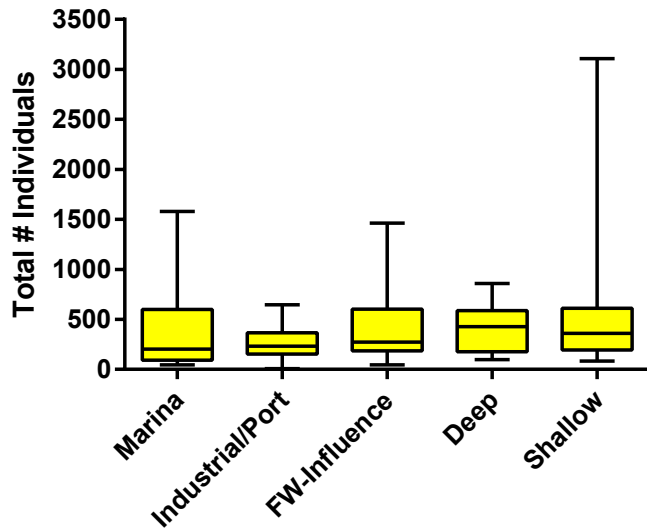
% Bivalves (by #)



**Total # Distinct Taxa
Benthic Infauna**



**Total # Individuals
Benthic Infauna**



Aluminum

ANOVA summary (log transformed)

F	3.425
P value	0.0129
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1637

Brown-Forsythe test

F (DFn, DFd)	1.864 (4, 70)
P value	0.1264
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.094	-0.3215 to 0.1335	No	ns
Marina vs. FWI	-0.02689	-0.2852 to 0.2315	No	ns
Marina vs. Deep	0.1799	-0.05404 to 0.4138	No	ns
Marina vs. Shallow	0.09049	-0.1472 to 0.3281	No	ns
Industrial/Port vs. FWI	0.06711	-0.1820 to 0.3162	No	ns
Industrial/Port vs. Deep	0.2739	0.05025 to 0.4975	Yes	**
Industrial/Port vs. Shallow	0.1845	-0.04303 to 0.4120	No	ns
FWI vs. Deep	0.2067	-0.04816 to 0.4617	No	ns
FWI vs. Shallow	0.1174	-0.1410 to 0.3757	No	ns
Deep vs. Shallow	-0.08937	-0.3233 to 0.1445	No	ns

Arsenic

ANOVA summary (log transformed)

F	1.929
P value	0.1153
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.09926

Brown-Forsythe test

F (DFn, DFd)	0.6179 (4, 70)
P value	0.6512
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.01404	-0.2196 to 0.1915	No	ns
Marina vs. FWI	0.07699	-0.1564 to 0.3104	No	ns
Marina vs. Deep	0.1397	-0.07168 to 0.3510	No	ns
Marina vs. Shallow	0.1351	-0.07966 to 0.3498	No	ns
Industrial/Port vs. FWI	0.09102	-0.1340 to 0.3161	No	ns
Industrial/Port vs. Deep	0.1537	-0.04835 to 0.3557	No	ns
Industrial/Port vs. Shallow	0.1491	-0.05649 to 0.3547	No	ns
FWI vs. Deep	0.06268	-0.1676 to 0.2930	No	ns
FWI vs. Shallow	0.05807	-0.1754 to 0.2915	No	ns
Deep vs. Shallow	-0.004603	-0.2159 to 0.2067	No	ns

Cadmium

ANOVA summary (log transformed)

F	2.01
P value	0.1024
P value summary	ns
Are differences among means statistically significant? ($P < 0.05$)	No
R square	0.103

Brown-Forsythe test

F (DFn, DFd)	1.979 (4, 70)
P value	0.1072
P value summary	ns
Significantly different standard deviations? ($P < 0.05$)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.03912	-0.2852 to 0.2070	No	ns
Marina vs. FWI	-0.04546	-0.3249 to 0.2339	No	ns
Marina vs. Deep	0.1725	-0.08047 to 0.4255	No	ns
Marina vs. Shallow	0.06881	-0.1882 to 0.3258	No	ns
Industrial/Port vs. FWI	-0.006339	-0.2757 to 0.2630	No	ns
Industrial/Port vs. Deep	0.2116	-0.03022 to 0.4535	No	ns
Industrial/Port vs. Shallow	0.1079	-0.1382 to 0.3540	No	ns
FWI vs. Deep	0.218	-0.05773 to 0.4936	No	ns
FWI vs. Shallow	0.1143	-0.1651 to 0.3937	No	ns
Deep vs. Shallow	-0.1037	-0.3567 to 0.1493	No	ns

Copper

ANOVA summary (log transformed)

F	9.627
P value	< 0.0001
P value summary	****
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.3549

Brown-Forsythe test

F (DFn, DFd)	0.7178 (4, 70)
P value	0.5826
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.118	-0.1947 to 0.4307	No	ns
Marina vs. FWI	0.48	0.1249 to 0.8350	Yes	**
Marina vs. Deep	0.5287	0.2072 to 0.8502	Yes	***
Marina vs. Shallow	0.533	0.2064 to 0.8596	Yes	***
Industrial/Port vs. FWI	0.362	0.01972 to 0.7043	Yes	*
Industrial/Port vs. Deep	0.4107	0.1034 to 0.7180	Yes	**
Industrial/Port vs. Shallow	0.415	0.1023 to 0.7277	Yes	**
FWI vs. Deep	0.0487	-0.3016 to 0.3990	No	ns
FWI vs. Shallow	0.05299	-0.3021 to 0.4081	No	ns
Deep vs. Shallow	0.004298	-0.3172 to 0.3258	No	ns

Iron

ANOVA summary (log transformed)

F	3.045
P value	0.0225
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1482

Brown-Forsythe test

F (DFn, DFd)	1.694 (4, 70)
P value	0.1611
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.08153	-0.2969 to 0.1339	No	ns
Marina vs. FWI	-0.007778	-0.2524 to 0.2368	No	ns
Marina vs. Deep	0.145	-0.07640 to 0.3665	No	ns
Marina vs. Shallow	0.1218	-0.1031 to 0.3468	No	ns
Industrial/Port vs. FWI	0.07375	-0.1620 to 0.3095	No	ns
Industrial/Port vs. Deep	0.2266	0.01487 to 0.4383	Yes	*
Industrial/Port vs. Shallow	0.2034	-0.01202 to 0.4188	No	ns
FWI vs. Deep	0.1528	-0.08851 to 0.3941	No	ns
FWI vs. Shallow	0.1296	-0.1149 to 0.3742	No	ns
Deep vs. Shallow	-0.02318	-0.2446 to 0.1982	No	ns

Mercury

ANOVA summary (log transformed)

F	5.721
P value	0.0005
P value summary	***
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2464

Brown-Forsythe test

F (DFn, DFd)	2.016 (4, 70)
P value	0.1016
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.07021	-0.5159 to 0.3755	No	ns
Marina vs. FWI	0.5803	0.07420 to 1.086	Yes	*
Marina vs. Deep	0.4166	-0.04157 to 0.8748	No	ns
Marina vs. Shallow	0.3981	-0.06740 to 0.8636	No	ns
Industrial/Port vs. FWI	0.6505	0.1626 to 1.138	Yes	**
Industrial/Port vs. Deep	0.4868	0.04880 to 0.9249	Yes	*
Industrial/Port vs. Shallow	0.4683	0.02263 to 0.9140	Yes	*
FWI vs. Deep	-0.1637	-0.6630 to 0.3357	No	ns
FWI vs. Shallow	-0.1822	-0.6882 to 0.3239	No	ns
Deep vs. Shallow	-0.0185	-0.4767 to 0.4397	No	ns

Nickel

ANOVA summary (log transformed)

F	9.627
P value	< 0.0001
P value summary	****
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.3549

Brown-Forsythe test

F (DFn, DFd)	0.7178 (4, 70)
P value	0.5826
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.118	-0.1947 to 0.4307	No	ns
Marina vs. FWI	0.48	0.1249 to 0.8350	Yes	**
Marina vs. Deep	0.5287	0.2072 to 0.8502	Yes	***
Marina vs. Shallow	0.533	0.2064 to 0.8596	Yes	***
Industrial/Port vs. FWI	0.362	0.01972 to 0.7043	Yes	*
Industrial/Port vs. Deep	0.4107	0.1034 to 0.7180	Yes	**
Industrial/Port vs. Shallow	0.415	0.1023 to 0.7277	Yes	**
FWI vs. Deep	0.0487	-0.3016 to 0.3990	No	ns
FWI vs. Shallow	0.05299	-0.3021 to 0.4081	No	ns
Deep vs. Shallow	0.004298	-0.3172 to 0.3258	No	ns

Lead

ANOVA summary (log transformed)

F	5.891
P value	0.0004
P value summary	***
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2519

Brown-Forsythe test

F (DFn, DFd)	0.2736 (4, 70)
P value	0.8941
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.1765	-0.4481 to 0.09501	No	ns
Marina vs. FWI	0.1467	-0.1616 to 0.4550	No	ns
Marina vs. Deep	0.245	-0.03411 to 0.5242	No	ns
Marina vs. Shallow	0.1501	-0.1335 to 0.4337	No	ns
Industrial/Port vs. FWI	0.3232	0.02597 to 0.6205	Yes	*
Industrial/Port vs. Deep	0.4216	0.1547 to 0.6885	Yes	***
Industrial/Port vs. Shallow	0.3266	0.05509 to 0.5982	Yes	*
FWI vs. Deep	0.09835	-0.2059 to 0.4026	No	ns
FWI vs. Shallow	0.0034	-0.3049 to 0.3117	No	ns
Deep vs. Shallow	-0.09495	-0.3741 to 0.1842	No	ns

Selenium

ANOVA summary (log transformed)

F	1.743
P value	0.1504
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.09056

Brown-Forsythe test

F (DFn, DFd)	0.7176 (4, 70)
P value	0.5827
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.000285	-0.2724 to 0.2729	No	ns
Marina vs. FWI	0.07531	-0.2343 to 0.3849	No	ns
Marina vs. Deep	0.1966	-0.08366 to 0.4769	No	ns
Marina vs. Shallow	0.1678	-0.1169 to 0.4526	No	ns
Industrial/Port vs. FWI	0.07502	-0.2234 to 0.3735	No	ns
Industrial/Port vs. Deep	0.1963	-0.07162 to 0.4643	No	ns
Industrial/Port vs. Shallow	0.1676	-0.1051 to 0.4402	No	ns
FWI vs. Deep	0.1213	-0.1841 to 0.4268	No	ns
FWI vs. Shallow	0.09253	-0.2170 to 0.4021	No	ns
Deep vs. Shallow	-0.02878	-0.3091 to 0.2515	No	ns

Zinc

ANOVA summary (log transformed)

F	6.251
P value	0.0002
P value summary	***
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2632

Brown-Forsythe test

F (DFn, DFd)	0.4618 (4, 70)
P value	0.7635
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.02202	-0.2143 to 0.2583	No	ns
Marina vs. FWI	0.2063	-0.06200 to 0.4746	No	ns
Marina vs. Deep	0.3401	0.09722 to 0.5831	Yes	**
Marina vs. Shallow	0.2719	0.02512 to 0.5187	Yes	*
Industrial/Port vs. FWI	0.1843	-0.07439 to 0.4430	No	ns
Industrial/Port vs. Deep	0.3181	0.08588 to 0.5504	Yes	**
Industrial/Port vs. Shallow	0.2499	0.01360 to 0.4862	Yes	*
FWI vs. Deep	0.1338	-0.1309 to 0.3986	No	ns
FWI vs. Shallow	0.06562	-0.2027 to 0.3339	No	ns
Deep vs. Shallow	-0.06822	-0.3111 to 0.1747	No	ns

Total Nitrogen

ANOVA summary (log transformed)

F	1.27
P value	0.2901
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.06765

Brown-Forsythe test

F (DFn, DFd)	0.7434 (4, 70)
P value	0.5657
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.05027	-0.5205 to 0.6210	No	ns
Marina vs. FWI	-0.3549	-1.003 to 0.2932	No	ns
Marina vs. Deep	-0.06092	-0.6477 to 0.5258	No	ns
Marina vs. Shallow	0.1378	-0.4584 to 0.7339	No	ns
Industrial/Port vs. FWI	-0.4052	-1.030 to 0.2197	No	ns
Industrial/Port vs. Deep	-0.1112	-0.6721 to 0.4498	No	ns
Industrial/Port vs. Shallow	0.08753	-0.4832 to 0.6583	No	ns
FWI vs. Deep	0.294	-0.3455 to 0.9334	No	ns
FWI vs. Shallow	0.4927	-0.1554 to 1.141	No	ns
Deep vs. Shallow	0.1987	-0.3880 to 0.7855	No	ns

Ammonia

ANOVA summary (log transformed)

F	0.7961
P value	0.5317
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.04351

Brown-Forsythe test

F (DFn, DFd)	1.131 (4, 70)
P value	0.3491
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.1078	-0.3614 to 0.5770	No	ns
Marina vs. FWI	-0.08817	-0.6210 to 0.4446	No	ns
Marina vs. Deep	0.2128	-0.2695 to 0.6952	No	ns
Marina vs. Shallow	0.0219	-0.4682 to 0.5120	No	ns
Industrial/Port vs. FWI	-0.196	-0.7096 to 0.3177	No	ns
Industrial/Port vs. Deep	0.1051	-0.3561 to 0.5662	No	ns
Industrial/Port vs. Shallow	-0.0859	-0.5551 to 0.3833	No	ns
FWI vs. Deep	0.301	-0.2247 to 0.8267	No	ns
FWI vs. Shallow	0.1101	-0.4227 to 0.6429	No	ns
Deep vs. Shallow	-0.191	-0.6733 to 0.2914	No	ns

Phosphorus

ANOVA summary (log transformed)

F	1.446
P value	0.2281
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.07632

Brown-Forsythe test

F (DFn, DFd)	0.6168 (4, 70)
P value	0.652
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.04843	-0.1514 to 0.2483	No	ns
Marina vs. FWI	0.1435	-0.08340 to 0.3704	No	ns
Marina vs. Deep	0.1201	-0.08539 to 0.3255	No	ns
Marina vs. Shallow	0.1436	-0.06510 to 0.3524	No	ns
Industrial/Port vs. FWI	0.09508	-0.1237 to 0.3139	No	ns
Industrial/Port vs. Deep	0.07163	-0.1248 to 0.2680	No	ns
Industrial/Port vs. Shallow	0.0952	-0.1046 to 0.2951	No	ns
FWI vs. Deep	-0.02346	-0.2474 to 0.2004	No	ns
FWI vs. Shallow	0.0001193	-0.2268 to 0.2270	No	ns
Deep vs. Shallow	0.02358	-0.1819 to 0.2290	No	ns

TOC

ANOVA summary (log transformed)

F	1.03
P value	0.398
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.05558

Brown-Forsythe test

F (DFn, DFd)	2.824 (4, 70)
P value	0.0312
P value summary	*
Significantly different standard deviations? (P < 0.05)	Yes

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.01927	-0.3998 to 0.3613	No	ns
Marina vs. FWI	-0.01561	-0.4477 to 0.4165	No	ns
Marina vs. Deep	0.02624	-0.3650 to 0.4175	No	ns
Marina vs. Shallow	0.2224	-0.1751 to 0.6199	No	ns
Industrial/Port vs. FWI	0.003656	-0.4129 to 0.4203	No	ns
Industrial/Port vs. Deep	0.04551	-0.3285 to 0.4195	No	ns
Industrial/Port vs. Shallow	0.2417	-0.1389 to 0.6222	No	ns
FWI vs. Deep	0.04186	-0.3845 to 0.4682	No	ns
FWI vs. Shallow	0.238	-0.1941 to 0.6701	No	ns
Deep vs. Shallow	0.1962	-0.1951 to 0.5874	No	ns

Kruskal-Wallis test

P value	0.657
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	5
Kruskal-Wallis statistic	2.431

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Marina vs. Industrial/Port	-4.822	No	ns
Marina vs. FWI	-0.3424	No	ns
Marina vs. Deep	1.91	No	ns
Marina vs. Shallow	6.833	No	ns
Industrial/Port vs. FWI	4.48	No	ns
Industrial/Port vs. Deep	6.733	No	ns
Industrial/Port vs. Shallow	11.66	No	ns
FWI vs. Deep	2.253	No	ns
FWI vs. Shallow	7.176	No	ns
Deep vs. Shallow	4.923	No	ns

Total PAHs

ANOVA summary (log transformed)

F	4.465
P value	0.0029
P value summary	**
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2033

Brown-Forsythe test

F (DFn, DFd)	0.4859 (4, 70)
P value	0.746
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.3393	-0.8515 to 0.1729	No	ns
Marina vs. FWI	0.3099	-0.2717 to 0.8915	No	ns
Marina vs. Deep	0.1884	-0.3381 to 0.7150	No	ns
Marina vs. Shallow	0.3207	-0.2143 to 0.8556	No	ns
Industrial/Port vs. FWI	0.6492	0.08851 to 1.210	Yes	*
Industrial/Port vs. Deep	0.5277	0.02434 to 1.031	Yes	*
Industrial/Port vs. Shallow	0.66	0.1478 to 1.172	Yes	**
FWI vs. Deep	-0.1215	-0.6953 to 0.4524	No	ns
FWI vs. Shallow	0.01078	-0.5708 to 0.5924	No	ns
Deep vs. Shallow	0.1323	-0.3943 to 0.6588	No	ns

Total Pyrethroids

ANOVA summary (log transformed)

F	2.326
P value	0.0647
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.1173

Brown-Forsythe test

F (DFn, DFd)	2.326 (4, 70)
P value	0.0647
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.1246	-0.2485 to 0.4977	No	ns
Marina vs. FWI	-0.09401	-0.5177 to 0.3297	No	ns
Marina vs. Deep	0.2772	-0.1063 to 0.6608	No	ns
Marina vs. Shallow	0.2458	-0.1439 to 0.6355	No	ns
Industrial/Port vs. FWI	-0.2186	-0.6271 to 0.1898	No	ns
Industrial/Port vs. Deep	0.1526	-0.2141 to 0.5193	No	ns
Industrial/Port vs. Shallow	0.1212	-0.2519 to 0.4943	No	ns
FWI vs. Deep	0.3713	-0.04677 to 0.7893	No	ns
FWI vs. Shallow	0.3398	-0.08383 to 0.7635	No	ns
Deep vs. Shallow	-0.03142	-0.4150 to 0.3522	No	ns

Total PBDEs

ANOVA summary (log transformed)

F	4.142
P value	0.0045
P value summary	**
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1914

Brown-Forsythe test

F (DFn, DFd)	0.9926 (4, 70)
P value	0.4174
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.7033	-1.605 to 0.1985	No	ns
Marina vs. FWI	0.05626	-0.9677 to 1.080	No	ns
Marina vs. Deep	0.4889	-0.4382 to 1.416	No	ns
Marina vs. Shallow	0.2943	-0.6476 to 1.236	No	ns
Industrial/Port vs. FWI	0.7596	-0.2276 to 1.747	No	ns
Industrial/Port vs. Deep	1.192	0.3059 to 2.079	Yes	**
Industrial/Port vs. Shallow	0.9976	0.09578 to 1.899	Yes	*
FWI vs. Deep	0.4326	-0.5777 to 1.443	No	ns
FWI vs. Shallow	0.238	-0.7860 to 1.262	No	ns
Deep vs. Shallow	-0.1946	-1.122 to 0.7325	No	ns

Total Chlordanes

ANOVA summary (log transformed)

F	2.499
P value	0.0503
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.1249

Brown-Forsythe test

F (DFn, DFd)	2.499 (4, 70)
P value	0.0503
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.5279	-1.296 to 0.2404	No	ns
Marina vs. FWI	-0.307	-1.179 to 0.5655	No	ns
Marina vs. Deep	0.04041	-0.7495 to 0.8303	No	ns
Marina vs. Shallow	0.2591	-0.5435 to 1.062	No	ns
Industrial/Port vs. FWI	0.221	-0.6202 to 1.062	No	ns
Industrial/Port vs. Deep	0.5684	-0.1868 to 1.324	No	ns
Industrial/Port vs. Shallow	0.787	0.01866 to 1.555	Yes	*
FWI vs. Deep	0.3474	-0.5135 to 1.208	No	ns
FWI vs. Shallow	0.5661	-0.3064 to 1.439	No	ns
Deep vs. Shallow	0.2187	-0.5712 to 1.009	No	ns

Total PCBs

ANOVA summary (log transformed)

F	2.835
P value	0.0307
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1394

Brown-Forsythe test

F (DFn, DFd)	0.8918 (4, 70)
P value	0.4736
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.45	-1.424 to 0.5239	No	ns
Marina vs. FWI	0.331	-0.7748 to 1.437	No	ns
Marina vs. Deep	0.564	-0.4372 to 1.565	No	ns
Marina vs. Shallow	0.4447	-0.5725 to 1.462	No	ns
Industrial/Port vs. FWI	0.781	-0.2851 to 1.847	No	ns
Industrial/Port vs. Deep	1.014	0.05683 to 1.971	Yes	*
Industrial/Port vs. Shallow	0.8947	-0.07924 to 1.869	No	ns
FWI vs. Deep	0.233	-0.8581 to 1.324	No	ns
FWI vs. Shallow	0.1137	-0.9922 to 1.220	No	ns
Deep vs. Shallow	-0.1193	-1.121 to 0.8819	No	ns

ERM-Q

ANOVA summary (log transformed)

F	6.576
P value	0.0001
P value summary	***
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.2731

Brown-Forsythe test

F (DFn, DFd)	0.2436 (4, 70)
P value	0.9126
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.01589	-0.2737 to 0.2420	No	ns
Marina vs. FWI	0.2502	-0.04256 to 0.5430	No	ns
Marina vs. Deep	0.3261	0.06099 to 0.5912	Yes	**
Marina vs. Shallow	0.3139	0.04462 to 0.5833	Yes	*
Industrial/Port vs. FWI	0.2661	-0.01616 to 0.5484	No	ns
Industrial/Port vs. Deep	0.342	0.08854 to 0.5954	Yes	**
Industrial/Port vs. Shallow	0.3298	0.07197 to 0.5877	Yes	**
FWI vs. Deep	0.07585	-0.2130 to 0.3647	No	ns
FWI vs. Shallow	0.06372	-0.2291 to 0.3565	No	ns
Deep vs. Shallow	-0.01213	-0.2772 to 0.2530	No	ns

CSI

ANOVA summary (log transformed)

F	8.198
P value	< 0.0001
P value summary	****
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.319

Brown-Forsythe test

F (DFn, DFd)	0.1653 (4, 70)
P value	0.9553
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.0324	-0.1441 to 0.07935	No	ns
Marina vs. FWI	0.09702	-0.02986 to 0.2239	No	ns
Marina vs. Deep	0.1354	0.02051 to 0.2503	Yes	*
Marina vs. Shallow	0.1477	0.03099 to 0.2644	Yes	**
Industrial/Port vs. FWI	0.1294	0.007092 to 0.2517	Yes	*
Industrial/Port vs. Deep	0.1678	0.05796 to 0.2776	Yes	***
Industrial/Port vs. Shallow	0.1801	0.06835 to 0.2918	Yes	***
FWI vs. Deep	0.03836	-0.08683 to 0.1636	No	ns
FWI vs. Shallow	0.05068	-0.07620 to 0.1776	No	ns
Deep vs. Shallow	0.01231	-0.1026 to 0.1272	No	ns

Untransformed Data Analysis

Kruskal-Wallis test

P value	0.0002
Exact or approximate P value?	Approximate
P value summary	***
Do the medians vary signif. (P < 0.05)	Yes
Number of groups	5
Kruskal-Wallis statistic	22.62

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Marina vs. Industrial/Port	-5.472	No	ns
Marina vs. FWI	16.44	No	ns
Marina vs. Deep	21.07	No	ns
Marina vs. Shallow	22.87	Yes	*
Industrial/Port vs. FWI	21.91	No	ns
Industrial/Port vs. Deep	26.55	Yes	**
Industrial/Port vs. Shallow	28.34	Yes	**
FWI vs. Deep	4.634	No	ns
FWI vs. Shallow	6.427	No	ns
Deep vs. Shallow	1.794	No	ns

BRI

ANOVA summary (log transformed)

F	7.719
P value	< 0.0001
P value summary	****
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.3061

Brown-Forsythe test

F (DFn, DFd)	0.9711 (4, 70)
P value	0.4289
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.03461	-0.03676 to 0.1060	No	ns
Marina vs. FWI	0.01039	-0.05974 to 0.08052	No	ns
Marina vs. Deep	0.1217	0.05269 to 0.1908	Yes	****
Marina vs. Shallow	0.03215	-0.03798 to 0.1023	No	ns
Industrial/Port vs. FWI	-0.02423	-0.09560 to 0.04715	No	ns
Industrial/Port vs. Deep	0.08711	0.01682 to 0.1574	Yes	**
Industrial/Port vs. Shallow	-0.002464	-0.07384 to 0.06891	No	ns
FWI vs. Deep	0.1113	0.04230 to 0.1804	Yes	***
FWI vs. Shallow	0.02176	-0.04837 to 0.09189	No	ns
Deep vs. Shallow	-0.08957	-0.1586 to -0.02054	Yes	**

IBI

ANOVA summary (log transformed)

F	1.306
P value	0.2858
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.1237

Brown-Forsythe test

F (DFn, DFd)	1.306 (4, 37)
P value	0.2858
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.03976	-0.1349 to 0.2144	No	ns
Marina vs. FWI	0.1079	-0.06016 to 0.2760	No	ns
Marina vs. Deep	0.06491	-0.1097 to 0.2395	No	ns
Marina vs. Shallow	0.1079	-0.05054 to 0.2664	No	ns
Industrial/Port vs. FWI	0.06816	-0.1152 to 0.2515	No	ns
Industrial/Port vs. Deep	0.02516	-0.1642 to 0.2146	No	ns
Industrial/Port vs. Shallow	0.06816	-0.1065 to 0.2428	No	ns
FWI vs. Deep	-0.043	-0.2264 to 0.1404	No	ns
FWI vs. Shallow	0	-0.1681 to 0.1681	No	ns
Deep vs. Shallow	0.043	-0.1316 to 0.2176	No	ns

RBI

ANOVA summary (log transformed)

F	3.91
P value	0.0064
P value summary	**
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1848

Brown-Forsythe test

F (DFn, DFd)	0.6225 (4, 69)
P value	0.648
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.2568	-0.6196 to 0.1060	No	ns
Marina vs. FWI	-0.152	-0.5016 to 0.1975	No	ns
Marina vs. Deep	-0.4471	-0.7912 to -0.1030	Yes	**
Marina vs. Shallow	-0.3425	-0.6920 to 0.007136	No	ns
Industrial/Port vs. FWI	0.1048	-0.2580 to 0.4675	No	ns
Industrial/Port vs. Deep	-0.1903	-0.5478 to 0.1672	No	ns
Industrial/Port vs. Shallow	-0.08566	-0.4484 to 0.2771	No	ns
FWI vs. Deep	-0.295	-0.6391 to 0.04905	No	ns
FWI vs. Shallow	-0.1904	-0.5400 to 0.1592	No	ns
Deep vs. Shallow	0.1046	-0.2395 to 0.4487	No	ns

RIVPACS

ANOVA summary (log transformed)

F	0.6208
P value	0.6492
P value summary	ns
Are differences among means statistically significant? ($P < 0.05$)	No
R square	0.03426

Brown-Forsythe test

F (DFn, DFd)	0.8689 (4, 70)
P value	0.4871
P value summary	ns
Significantly different standard deviations? ($P < 0.05$)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.07008	-0.2840 to 0.1438	No	ns
Marina vs. FWI	-0.09562	-0.3058 to 0.1145	No	ns
Marina vs. Deep	-0.09895	-0.3058 to 0.1079	No	ns
Marina vs. Shallow	-0.03953	-0.2497 to 0.1706	No	ns
Industrial/Port vs. FWI	-0.02554	-0.2394 to 0.1883	No	ns
Industrial/Port vs. Deep	-0.02887	-0.2395 to 0.1818	No	ns
Industrial/Port vs. Shallow	0.03055	-0.1833 to 0.2444	No	ns
FWI vs. Deep	-0.003331	-0.2102 to 0.2035	No	ns
FWI vs. Shallow	0.05609	-0.1541 to 0.2663	No	ns
Deep vs. Shallow	0.05942	-0.1474 to 0.2663	No	ns

SWI

ANOVA summary (log transformed)

F	1.076
P value	0.3751
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.05792

Brown-Forsythe test

F (DFn, DFd)	1.029 (4, 70)
P value	0.3987
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.04231	-0.1458 to 0.06118	No	ns
Marina vs. FWI	-0.03345	-0.1351 to 0.06824	No	ns
Marina vs. Deep	-0.07352	-0.1736 to 0.02656	No	ns
Marina vs. Shallow	-0.04129	-0.1430 to 0.06039	No	ns
Industrial/Port vs. FWI	0.008863	-0.09463 to 0.1124	No	ns
Industrial/Port vs. Deep	-0.03121	-0.1331 to 0.07070	No	ns
Industrial/Port vs. Shallow	0.001016	-0.1025 to 0.1045	No	ns
FWI vs. Deep	-0.04008	-0.1402 to 0.06001	No	ns
FWI vs. Shallow	-0.007847	-0.1095 to 0.09384	No	ns
Deep vs. Shallow	0.03223	-0.06786 to 0.1323	No	ns

Integrated SQO Infauna

ANOVA summary (log transformed)

F	2.88
P value	0.0287
P value summary	*
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1413

Brown-Forsythe test

F (DFn, DFd)	1.249 (4, 70)
P value	0.2983
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.06289	-0.1232 to 0.2489	No	ns
Marina vs. FWI	-0.008329	-0.1911 to 0.1745	No	ns
Marina vs. Deep	0.1835	0.003597 to 0.3635	Yes	*
Marina vs. Shallow	0.0587	-0.1241 to 0.2415	No	ns
Industrial/Port vs. FWI	-0.07121	-0.2573 to 0.1148	No	ns
Industrial/Port vs. Deep	0.1207	-0.06258 to 0.3039	No	ns
Industrial/Port vs. Shallow	-0.004188	-0.1902 to 0.1819	No	ns
FWI vs. Deep	0.1919	0.01193 to 0.3718	Yes	*
FWI vs. Shallow	0.06703	-0.1158 to 0.2498	No	ns
Deep vs. Shallow	-0.1248	-0.3048 to 0.05510	No	ns

% Sensitive Taxa

ANOVA summary (log transformed)

P value	0.4014
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. ($P < 0.05$)	No
Number of groups	5
Kruskal-Wallis statistic	4.034

Data summary

Number of treatments (columns)	5
Number of values (total)	73

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Marina vs. Industrial/Port	-7.865	No	ns
Marina vs. FW-Influence	1.783	No	ns
Marina vs. Deep	-10.41	No	ns
Marina vs. Shallow	0.3167	No	ns
Industrial/Port vs. FW-Influence	9.649	No	ns
Industrial/Port vs. Deep	-2.541	No	ns
Industrial/Port vs. Shallow	8.182	No	ns
FW-Influence vs. Deep	-12.19	No	ns
FW-Influence vs. Shallow	-1.467	No	ns
Deep vs. Shallow	10.72	No	ns

% Dominant Taxa

ANOVA summary (log transformed)

F	0.4963
P value	0.7385
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.02758

Brown-Forsythe test

F (DFn, DFd)	1.163 (4, 70)
P value	0.3344
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.04059	-0.1355 to 0.2167	No	ns
Marina vs. FWI	0.02154	-0.1515 to 0.1946	No	ns
Marina vs. Deep	0.08118	-0.08916 to 0.2515	No	ns
Marina vs. Shallow	0.04711	-0.1260 to 0.2202	No	ns
Industrial/Port vs. FWI	-0.01905	-0.1952 to 0.1571	No	ns
Industrial/Port vs. Deep	0.0406	-0.1329 to 0.2140	No	ns
Industrial/Port vs. Shallow	0.006523	-0.1696 to 0.1827	No	ns
FWI vs. Deep	0.05964	-0.1107 to 0.2300	No	ns
FWI vs. Shallow	0.02557	-0.1475 to 0.1986	No	ns
Deep vs. Shallow	-0.03407	-0.2044 to 0.1363	No	ns

% Dominant Top 3 Species

ANOVA summary (log transformed)

F	0.9059
P value	0.4654
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.04922

Brown-Forsythe test

F (DFn, DFd)	0.9634 (4, 70)
P value	0.4331
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.04689	-0.06705 to 0.1608	No	ns
Marina vs. FWI	0.03475	-0.07721 to 0.1467	No	ns
Marina vs. Deep	0.06935	-0.04085 to 0.1795	No	ns
Marina vs. Shallow	0.05813	-0.05383 to 0.1701	No	ns
Industrial/Port vs. FWI	-0.01214	-0.1261 to 0.1018	No	ns
Industrial/Port vs. Deep	0.02246	-0.08976 to 0.1347	No	ns
Industrial/Port vs. Shallow	0.01124	-0.1027 to 0.1252	No	ns
FWI vs. Deep	0.0346	-0.07560 to 0.1448	No	ns
FWI vs. Shallow	0.02338	-0.08859 to 0.1353	No	ns
Deep vs. Shallow	-0.01122	-0.1214 to 0.09898	No	ns

% Polychaetes by # Taxa

ANOVA summary (log transformed)

F	1.205
P value	0.3163
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.06444

Brown-Forsythe test

F (DFn, DFd)	0.6982 (4, 70)
P value	0.5958
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.07289	-0.2652 to 0.1194	No	ns
Marina vs. FWI	0.0552	-0.1337 to 0.2441	No	ns
Marina vs. Deep	0.02565	-0.1603 to 0.2116	No	ns
Marina vs. Shallow	0.05745	-0.1315 to 0.2464	No	ns
Industrial/Port vs. FWI	0.1281	-0.06417 to 0.3204	No	ns
Industrial/Port vs. Deep	0.09855	-0.09079 to 0.2879	No	ns
Industrial/Port vs. Shallow	0.1303	-0.06192 to 0.3226	No	ns
FWI vs. Deep	-0.02955	-0.2155 to 0.1564	No	ns
FWI vs. Shallow	0.002254	-0.1867 to 0.1912	No	ns
Deep vs. Shallow	0.0318	-0.1541 to 0.2177	No	ns

% Polychaetes by # Indiv.

ANOVA summary (log transformed)

F	0.2711
P value	0.8957
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.01525

Brown-Forsythe test

F (DFn, DFd)	0.3549 (4, 70)
P value	0.8398
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.04078	-0.3280 to 0.2464	No	ns
Marina vs. FWI	-0.03906	-0.3213 to 0.2432	No	ns
Marina vs. Deep	0.034	-0.2438 to 0.3118	No	ns
Marina vs. Shallow	0.03469	-0.2475 to 0.3169	No	ns
Industrial/Port vs. FWI	0.001723	-0.2855 to 0.2889	No	ns
Industrial/Port vs. Deep	0.07478	-0.2081 to 0.3576	No	ns
Industrial/Port vs. Shallow	0.07547	-0.2117 to 0.3627	No	ns
FWI vs. Deep	0.07306	-0.2047 to 0.3508	No	ns
FWI vs. Shallow	0.07375	-0.2085 to 0.3560	No	ns
Deep vs. Shallow	0.0006889	-0.2771 to 0.2785	No	ns

% Bivalves by # Taxa

ANOVA summary (log transformed)

F	1.008
P value	0.4092
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.05523

Brown-Forsythe test

F (DFn, DFd)	1.092 (4, 69)
P value	0.3677
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.07606	-0.3092 to 0.1570	No	ns
Marina vs. FWI	-0.1251	-0.3497 to 0.09955	No	ns
Marina vs. Deep	-0.1373	-0.3583 to 0.08383	No	ns
Marina vs. Shallow	-0.1239	-0.3485 to 0.1007	No	ns
Industrial/Port vs. FWI	-0.04901	-0.2821 to 0.1841	No	ns
Industrial/Port vs. Deep	-0.0612	-0.2909 to 0.1685	No	ns
Industrial/Port vs. Shallow	-0.04784	-0.2809 to 0.1853	No	ns
FWI vs. Deep	-0.01218	-0.2333 to 0.2089	No	ns
FWI vs. Shallow	0.001172	-0.2235 to 0.2258	No	ns
Deep vs. Shallow	0.01335	-0.2077 to 0.2344	No	ns

% Bivalves by # Indiv.

ANOVA summary (log transformed)

F	3.686
P value	0.0089
P value summary	**
Are differences among means statistically significant? (P < 0.05)	Yes
R square	0.1761

Brown-Forsythe test

F (DFn, DFd)	2.508 (4, 69)
P value	0.0497
P value summary	*
Significantly different standard deviations? (P < 0.05)	Yes

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	-0.7146	-1.243 to -0.1858	Yes	**
Marina vs. FWI	-0.3257	-0.8352 to 0.1839	No	ns
Marina vs. Deep	-0.4168	-0.9183 to 0.08473	No	ns
Marina vs. Shallow	-0.3194	-0.8289 to 0.1902	No	ns
Industrial/Port vs. FWI	0.3889	-0.1398 to 0.9177	No	ns
Industrial/Port vs. Deep	0.2978	-0.2233 to 0.8189	No	ns
Industrial/Port vs. Shallow	0.3952	-0.1336 to 0.9240	No	ns
FWI vs. Deep	-0.09114	-0.5927 to 0.4104	No	ns
FWI vs. Shallow	0.006286	-0.5033 to 0.5158	No	ns
Deep vs. Shallow	0.09743	-0.4041 to 0.5990	No	ns

Taxa Abundance (Total # Taxa)

ANOVA summary (log transformed)

P value	0.1564
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. ($P < 0.05$)	No
Number of groups	5
Kruskal-Wallis statistic	6.636

Data summary

Number of treatments (columns)	5
Number of values (total)	75

Dunn's multiple comparisons test	Mean rank diff.	Significant?	Summary
Marina vs. Industrial/Port	-3.957	No	ns
Marina vs. FW-Influence	-7.7	No	ns
Marina vs. Deep	-19.04	No	ns
Marina vs. Shallow	-8.8	No	ns
Industrial/Port vs. FW-Influence	-3.743	No	ns
Industrial/Port vs. Deep	-15.08	No	ns
Industrial/Port vs. Shallow	-4.843	No	ns
FW-Influence vs. Deep	-11.34	No	ns
FW-Influence vs. Shallow	-1.1	No	ns
Deep vs. Shallow	10.24	No	ns

Taxa Abundance (# Individuals)

ANOVA summary (log transformed)

F	1.188
P value	0.3238
P value summary	ns
Are differences among means statistically significant? (P < 0.05)	No
R square	0.06356

Brown-Forsythe test

F (DFn, DFd)	0.6735 (4, 70)
P value	0.6126
P value summary	ns
Significantly different standard deviations? (P < 0.05)	No

Tukey's multiple comparisons test	Mean Diff.	95% CI of diff.	Significant?	Summary
Marina vs. Industrial/Port	0.08637	-0.3401 to 0.5128	No	ns
Marina vs. FWI	-0.06517	-0.4842 to 0.3538	No	ns
Marina vs. Deep	-0.161	-0.5735 to 0.2514	No	ns
Marina vs. Shallow	-0.1989	-0.6179 to 0.2201	No	ns
Industrial/Port vs. FWI	-0.1515	-0.5780 to 0.2749	No	ns
Industrial/Port vs. Deep	-0.2474	-0.6674 to 0.1725	No	ns
Industrial/Port vs. Shallow	-0.2853	-0.7117 to 0.1412	No	ns
FWI vs. Deep	-0.09588	-0.5083 to 0.3165	No	ns
FWI vs. Shallow	-0.1337	-0.5527 to 0.2853	No	ns
Deep vs. Shallow	-0.03785	-0.4503 to 0.3746	No	ns

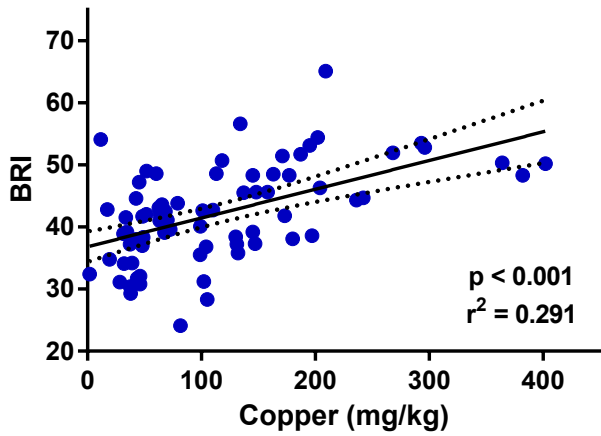
Regression Plots

Select Chemicals Compared
to Benthic Community
Measures

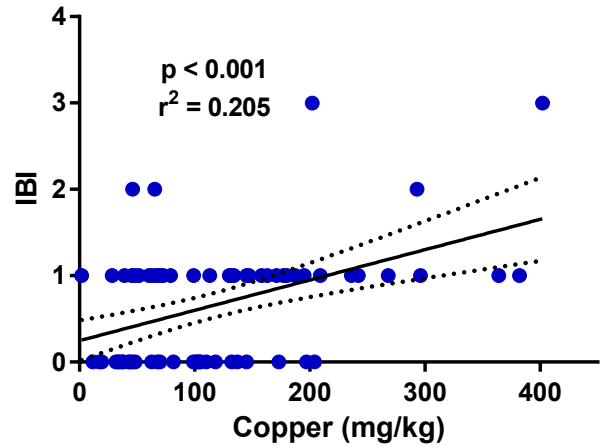
All RHMP Data

Copper

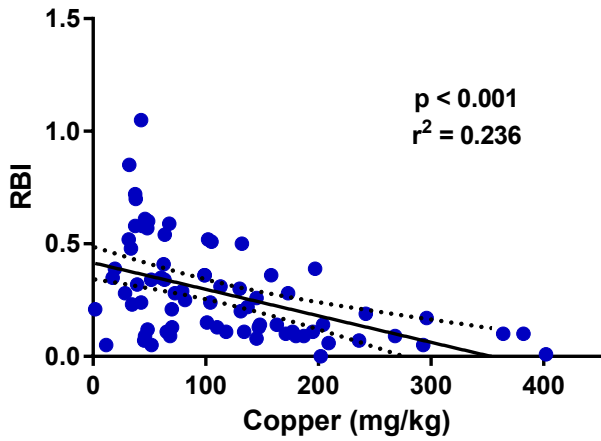
Copper vs. BRI



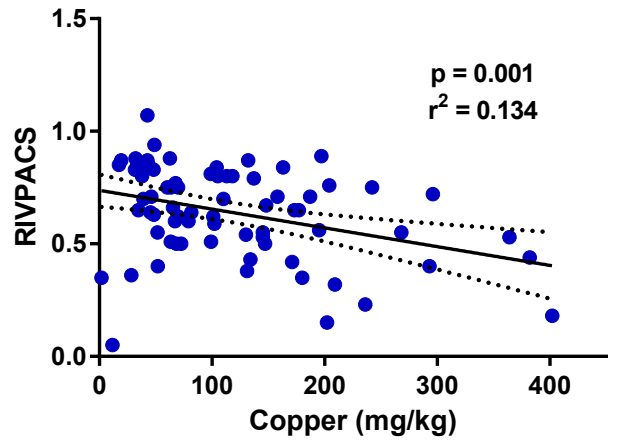
Copper vs. IBI



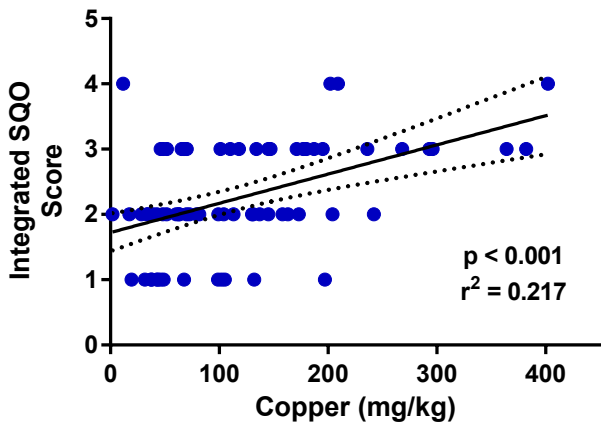
Copper vs. RBI



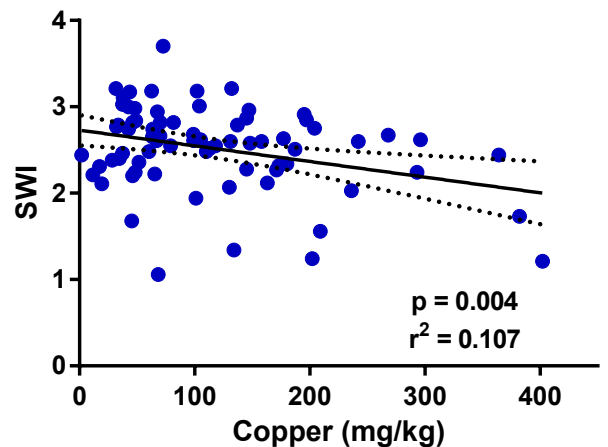
Copper vs. RIVPACS



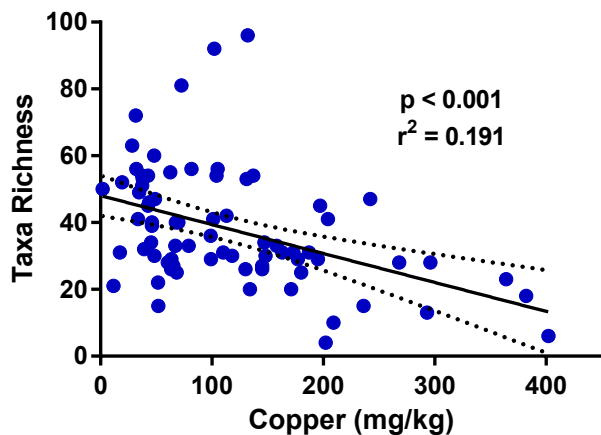
Copper vs. Integrated SQO Score



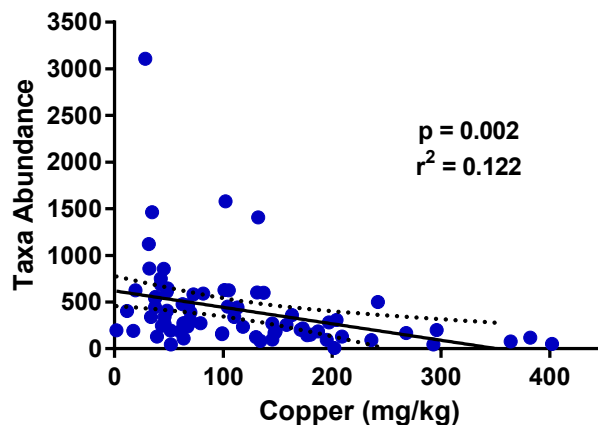
Copper vs. Shannon-Wiener Diversity Index



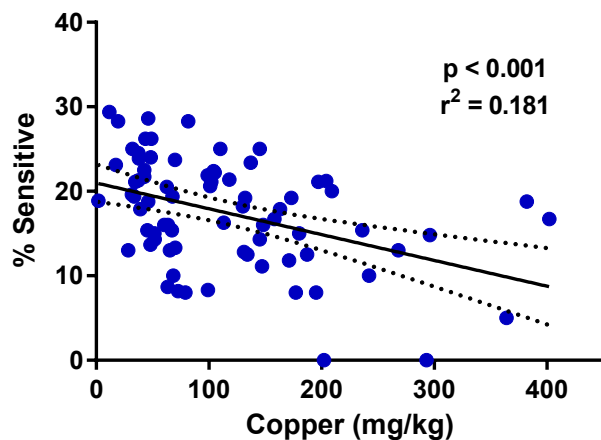
**Copper vs. Taxa
Richness**



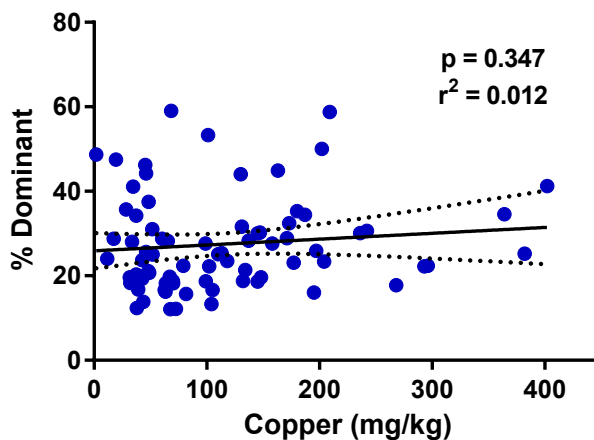
**Copper vs. Taxa
Abundance**



**Copper vs. % Sensitive
Taxa**

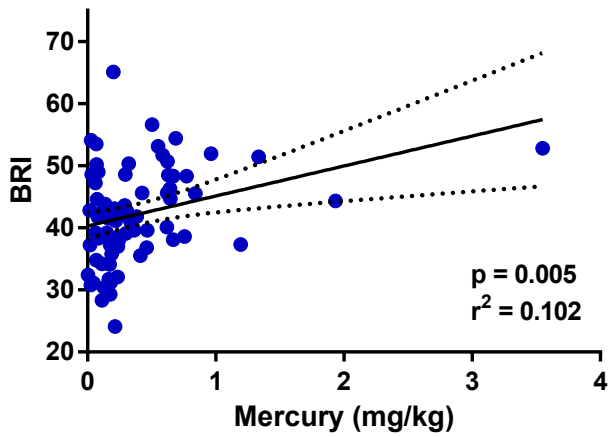


**Copper vs. % Dominant
Taxa**

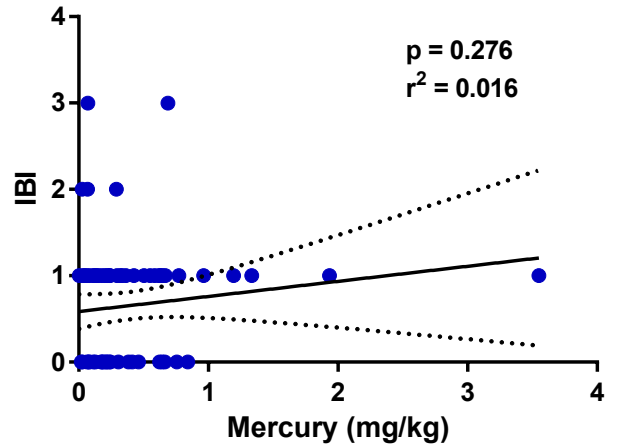


Mercury

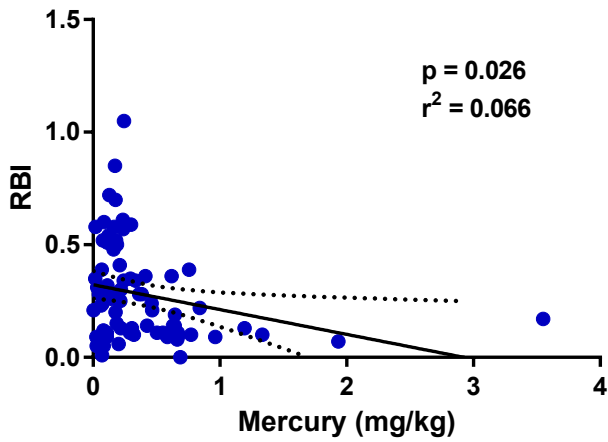
Mercury vs. BRI



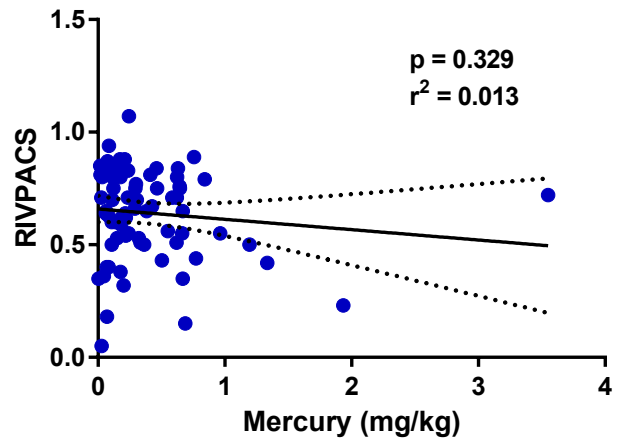
Mercury vs. IBI



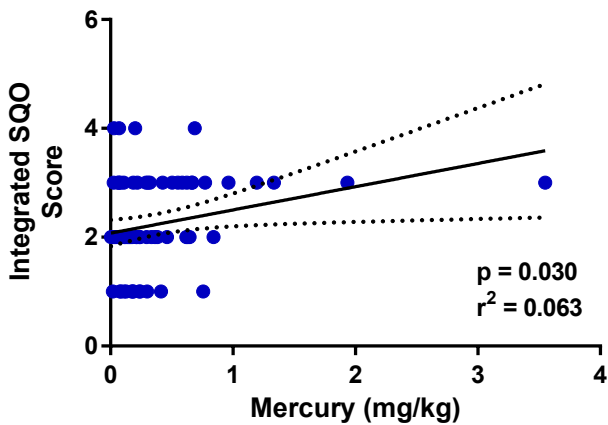
Mercury vs. RBI



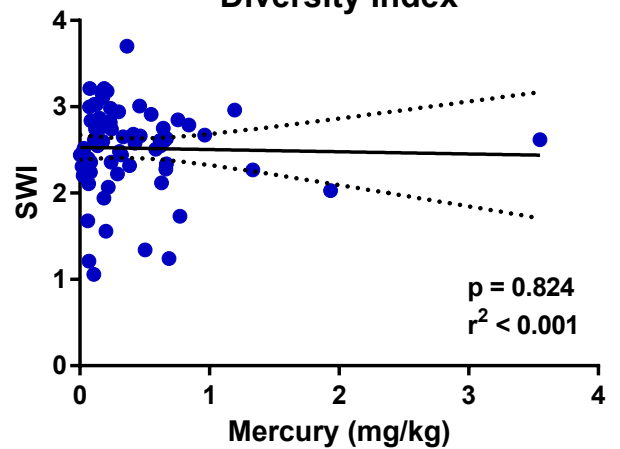
Mercury vs. RIVPACS



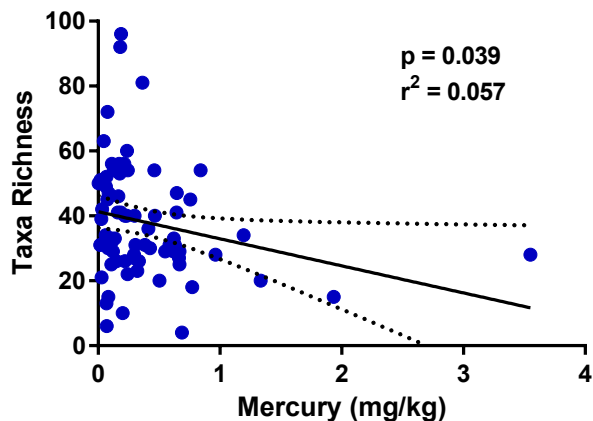
Mercury vs. Integrated SQO Score



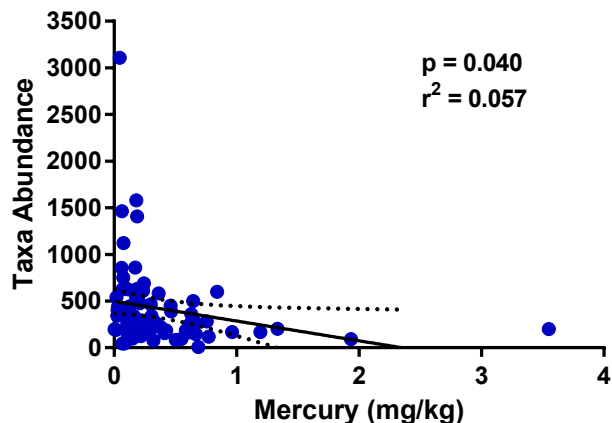
Mercury vs. Shannon-Wiener Diversity Index



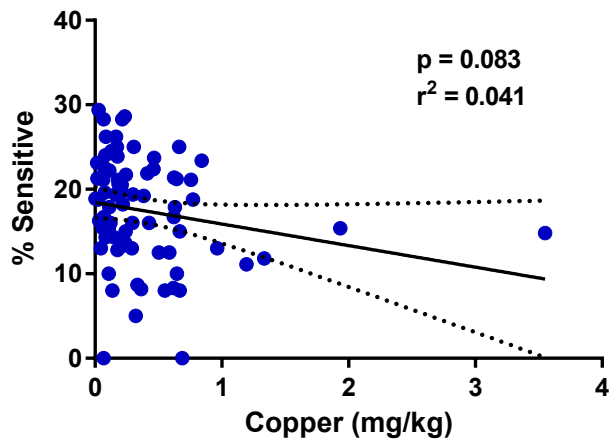
**Mercury vs. Taxa
Richness**



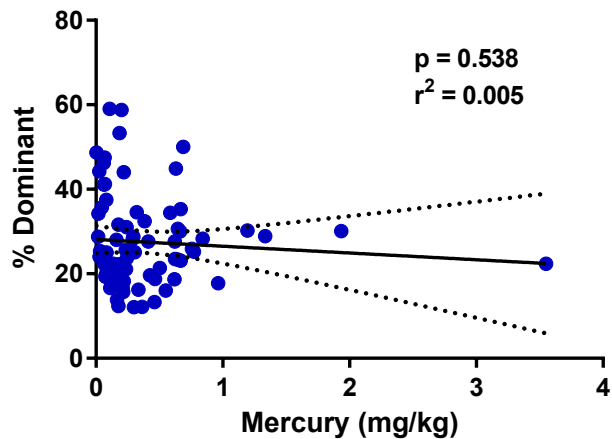
**Mercury vs. Taxa
Abundance**



**Mercury vs. % Sensitive
Taxa**

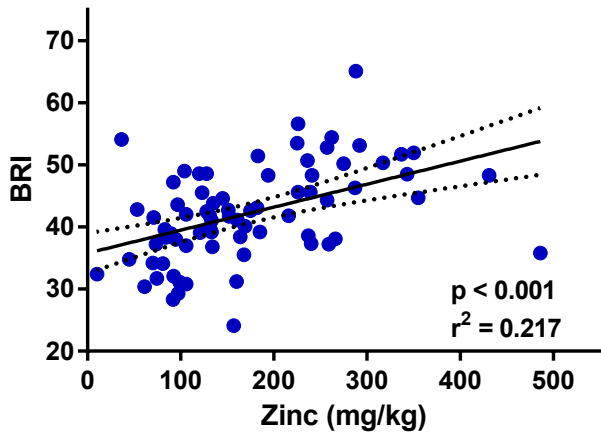


**Mercury vs. % Dominant
Taxa**

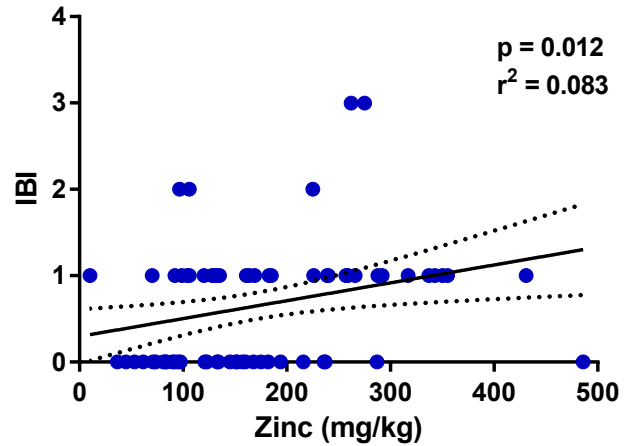


Zinc

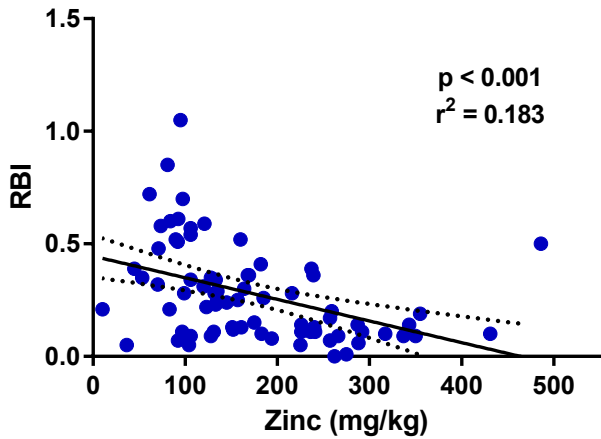
Zinc vs. BRI



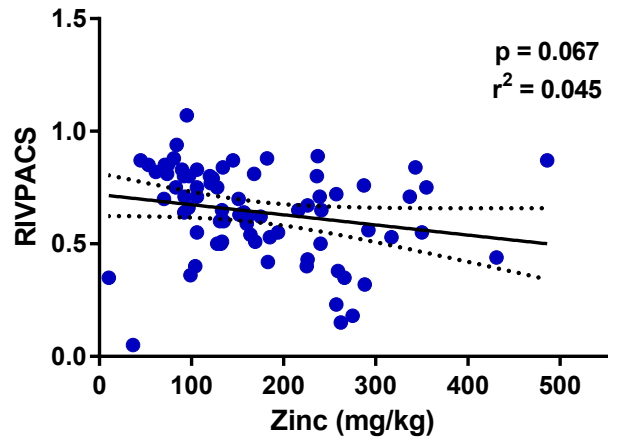
Zinc vs. IBI



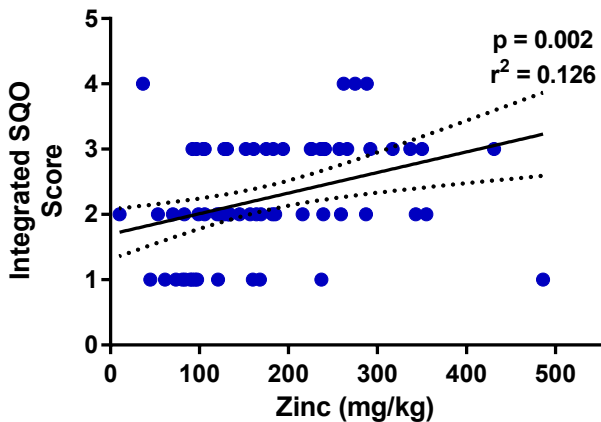
Zinc vs. RBI



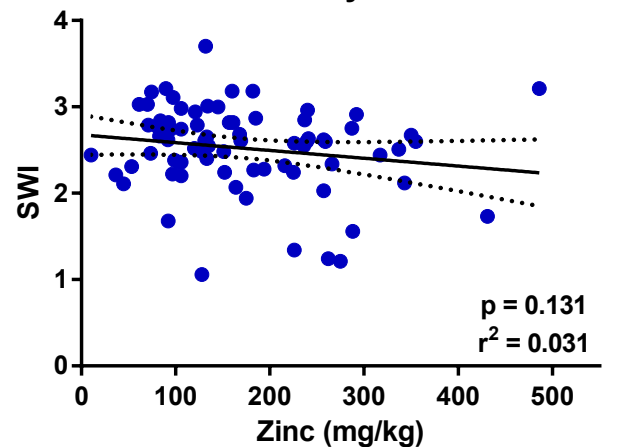
Zinc vs. RIVPACS



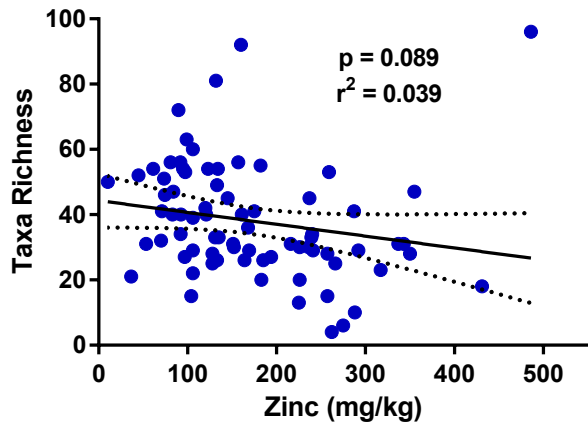
Zinc vs. Integrated SQO Score



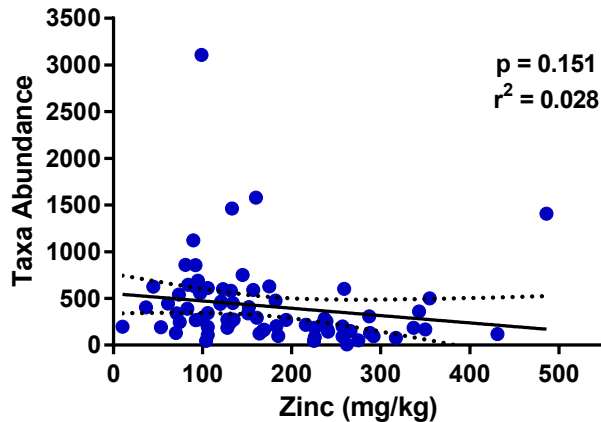
Zinc vs. Shannon-Wiener Diversity Index



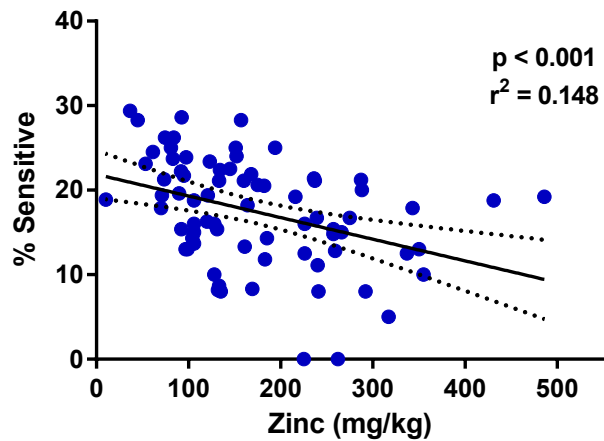
**Zinc vs. Taxa
Richness**



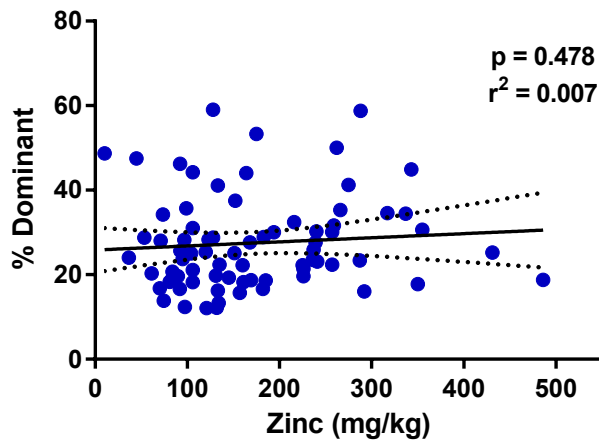
**Zinc vs. Taxa
Abundance**



**Zinc vs. % Sensitive
Taxa**

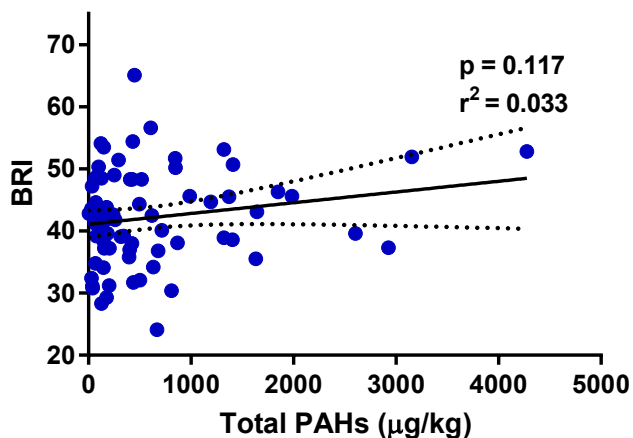


**Zinc vs. % Dominant
Taxa**

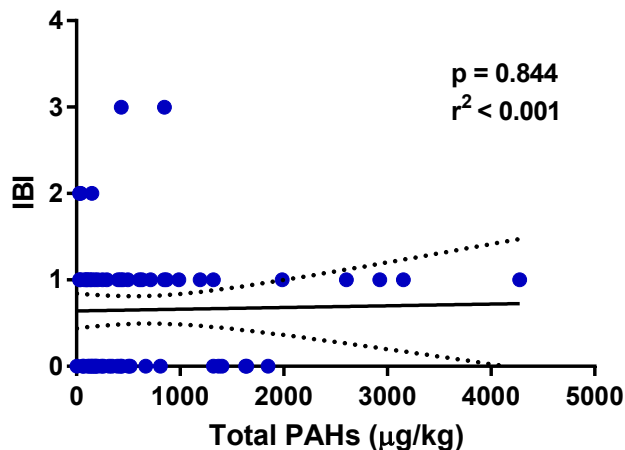


Total PAHs

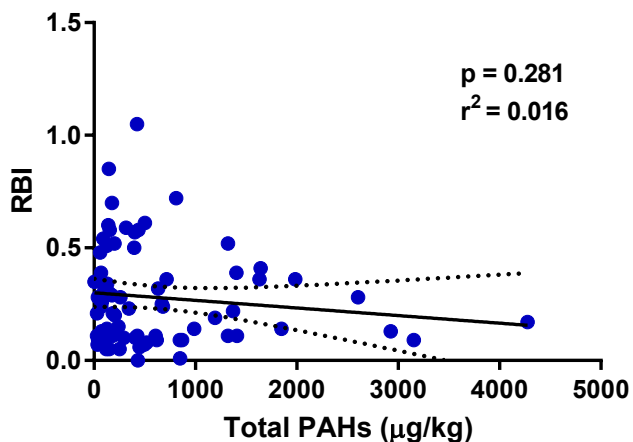
Total PAHs vs. BRI



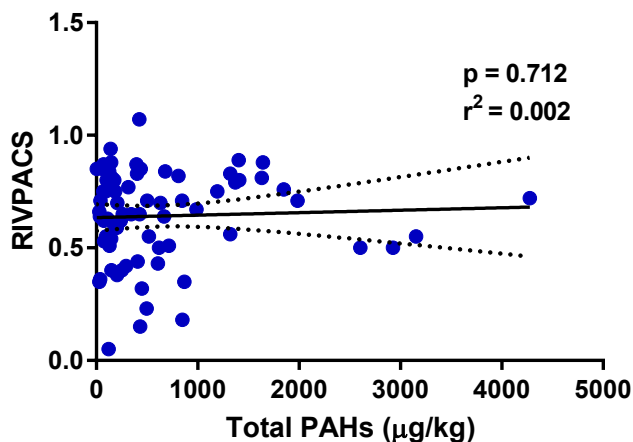
Total PAHs vs. IBI



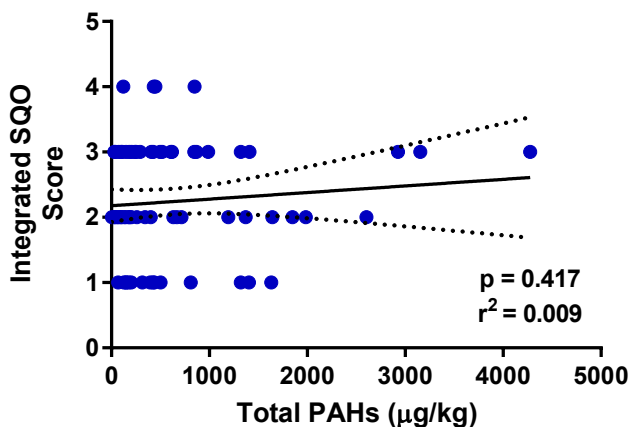
Total PAHs vs. RBI



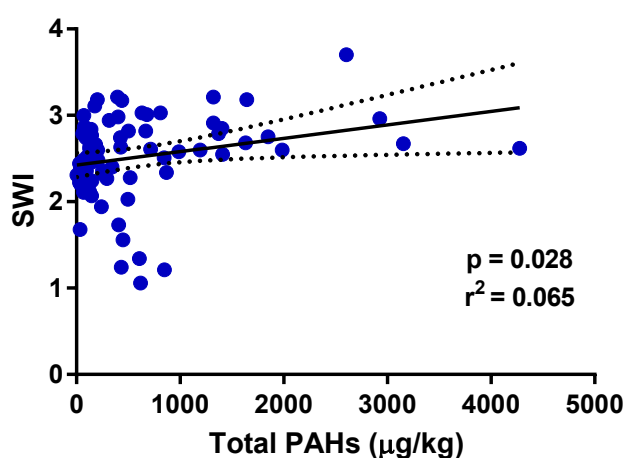
Total PAHs vs. RIVPACS



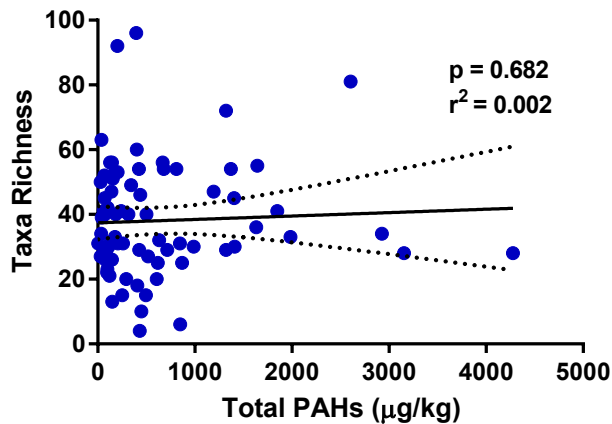
Total PAHs vs. Integrated SQO Score



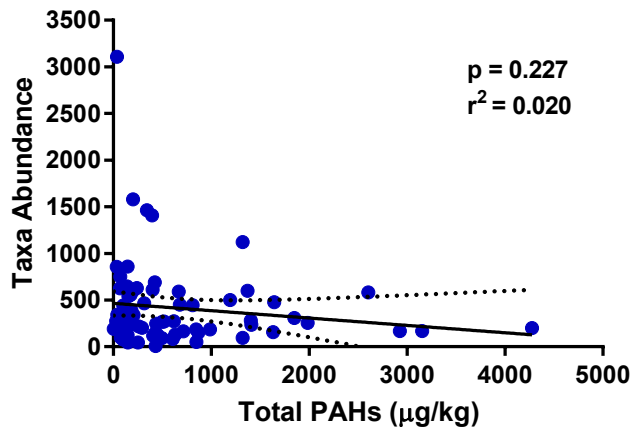
Total PAHs vs. Shannon-Wiener Diversity Index



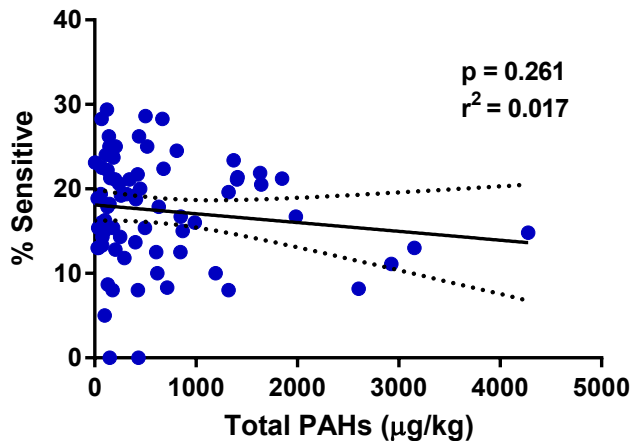
**Total PAHs vs. Taxa
Richness**



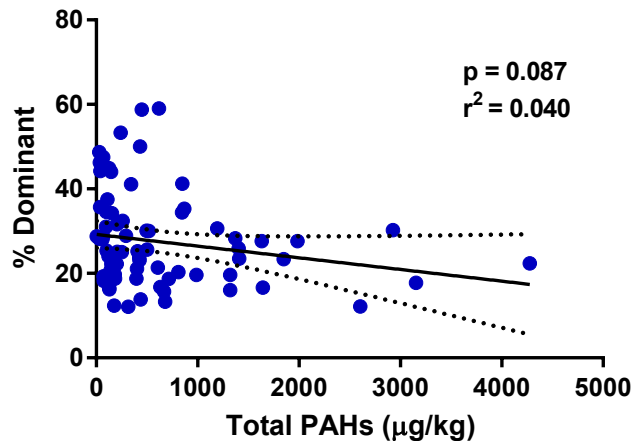
**Total PAHs vs. Taxa
Abundance**



**Total PAHs vs. % Sensitive
Taxa**

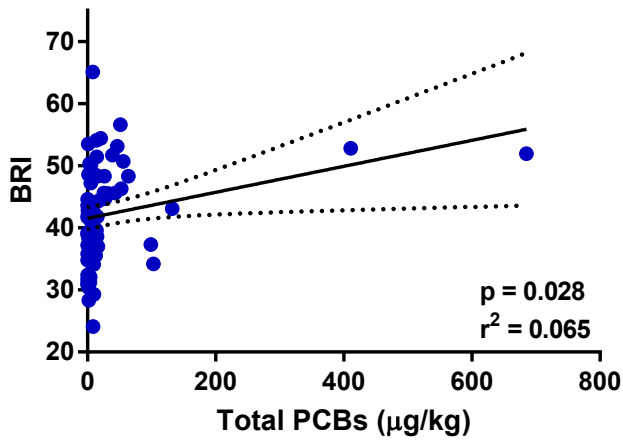


**Total PAHs vs. % Dominant
Taxa**

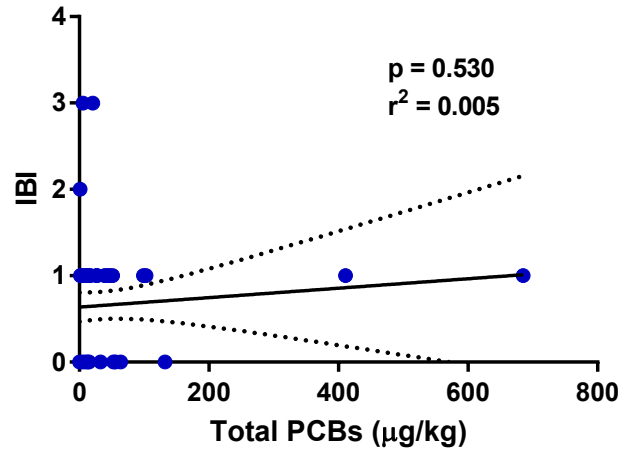


Total PCBs

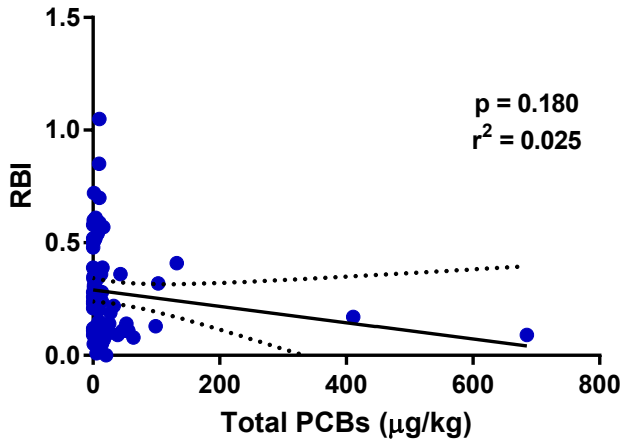
Total PCBs vs. BRI



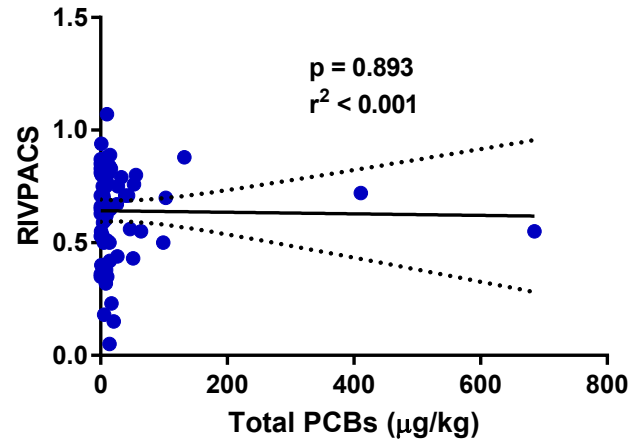
Total PCBs vs. IBI



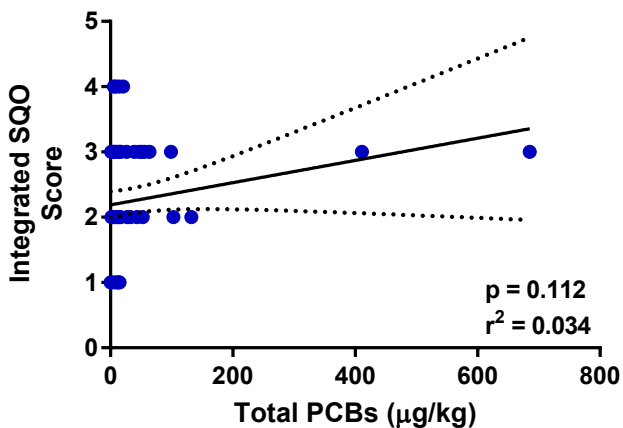
Total PCBs vs. RBI



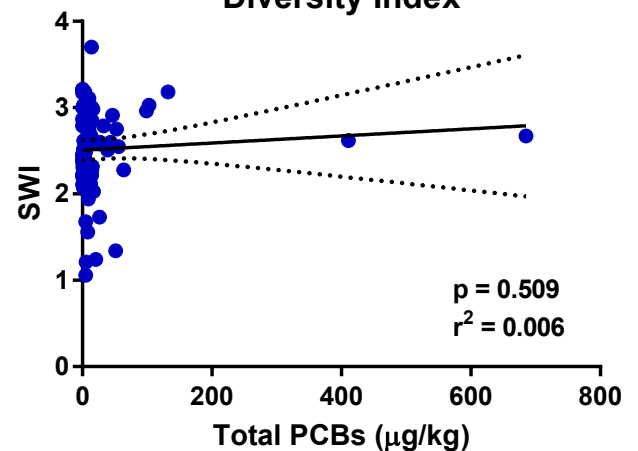
Total PCBs vs. RIVPACS



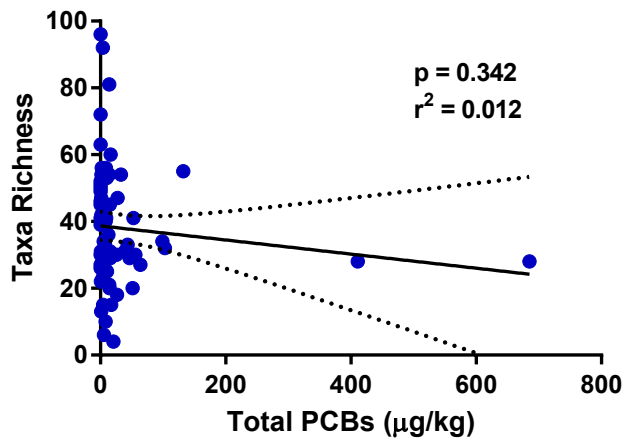
Total PCBs vs. Integrated SQO Score



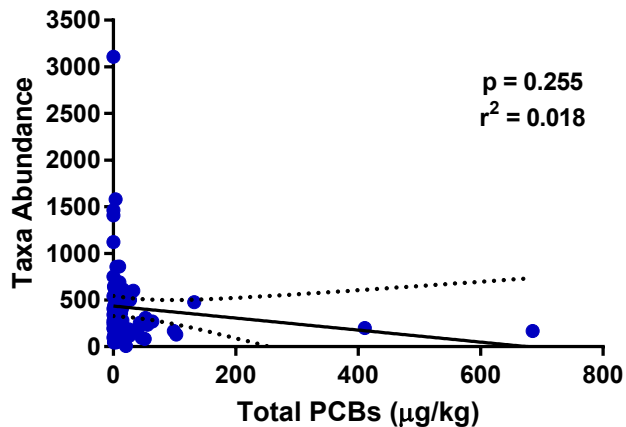
Total PCBs vs. Shannon-Wiener Diversity Index



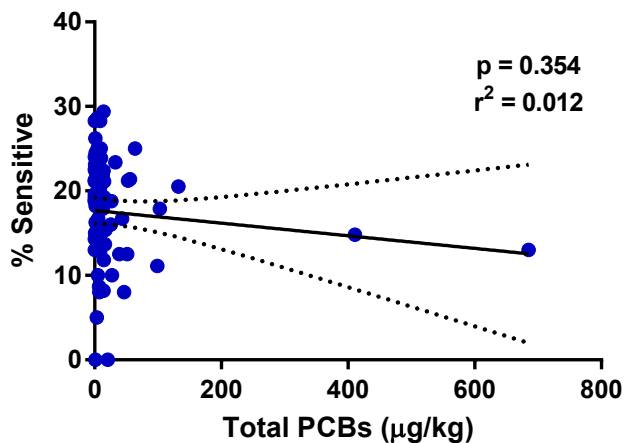
**Total PCBs vs. Taxa
Richness**



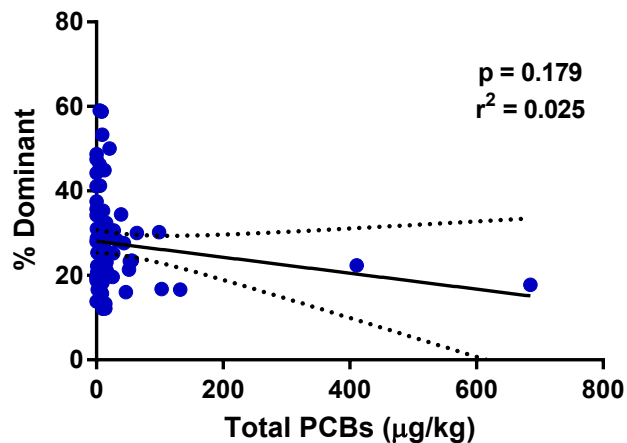
**Total PCBs vs. Taxa
Abundance**



**Total PCBs vs. % Sensitive
Taxa**

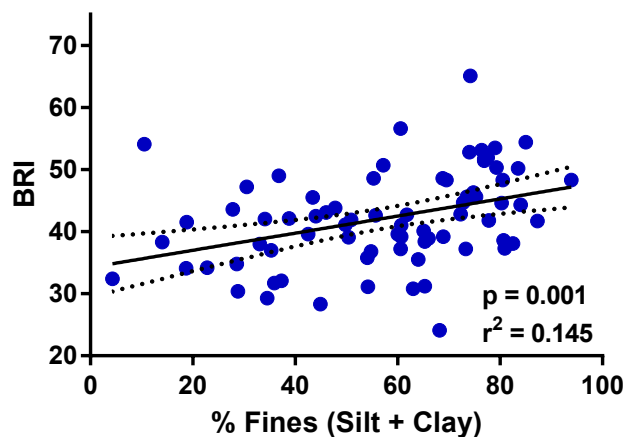


**Total PCBs vs. % Dominant
Taxa**

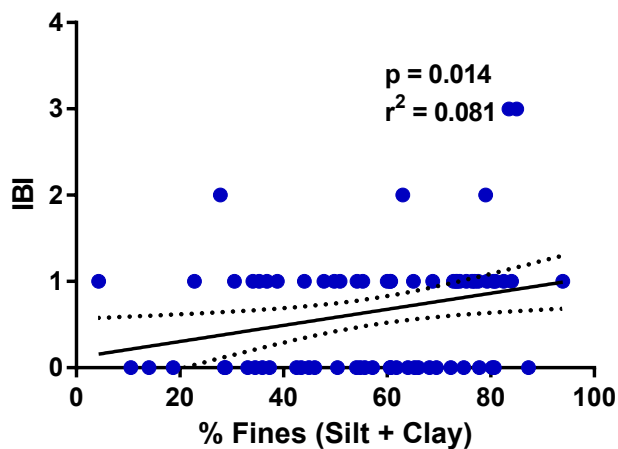


Grain Size
(% Fines)

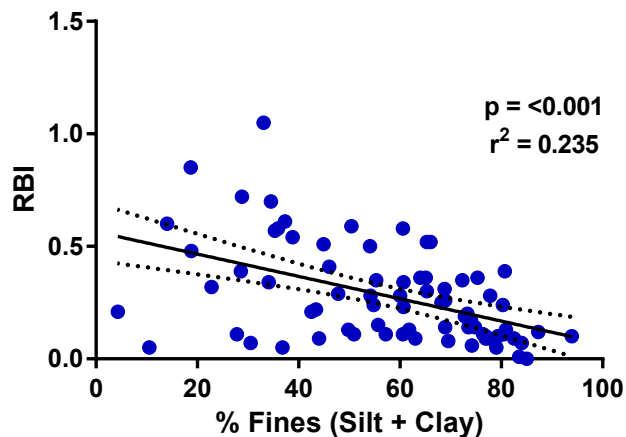
% Fines Sum vs. BRI



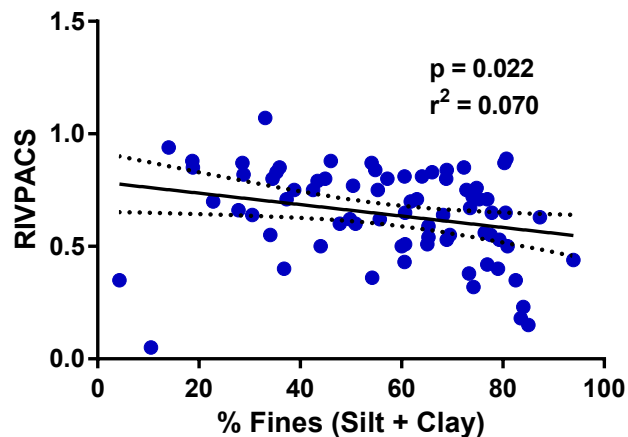
% Fines vs. IBI



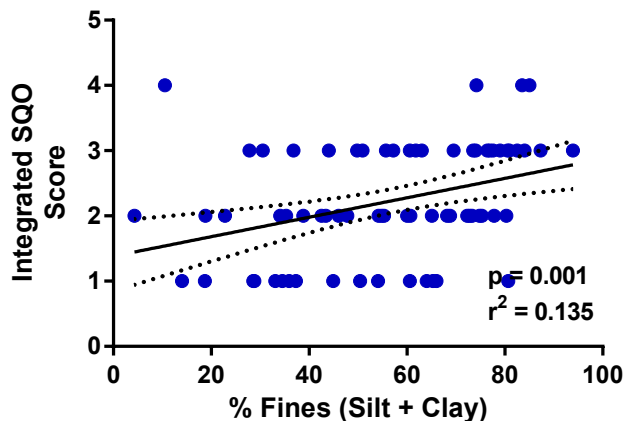
% Fines vs. RBI



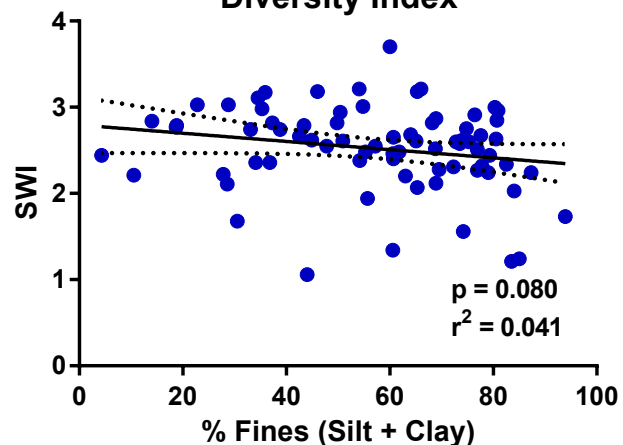
% Fines vs. RIVPACS



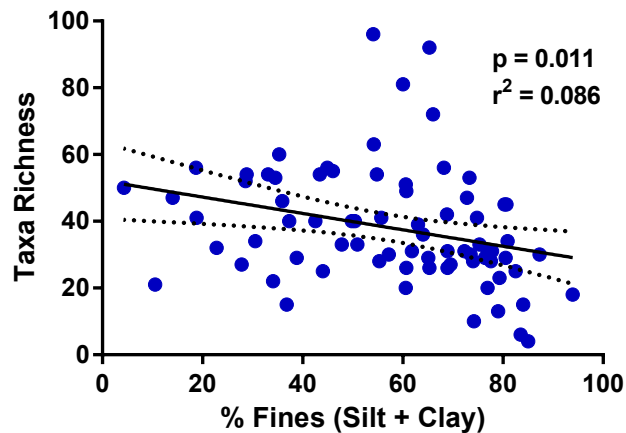
% Fines vs. Integrated SQO Score



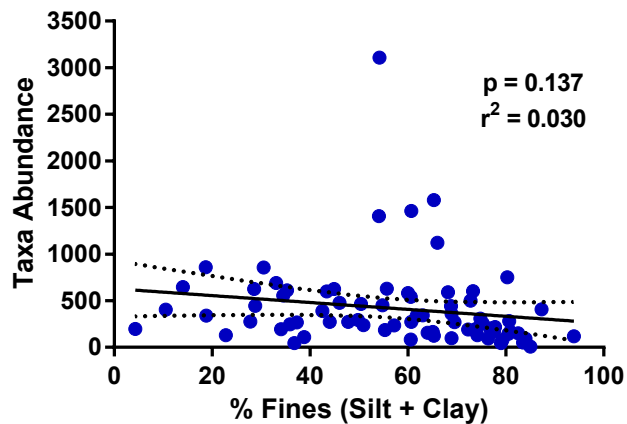
% Fines vs. Shannon-Wiener Diversity Index



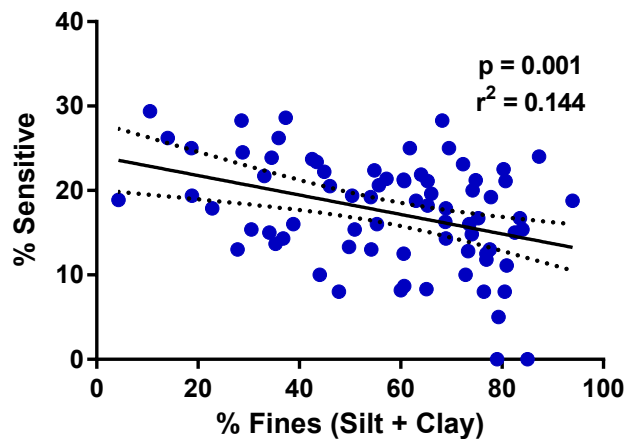
**% Fines vs. Taxa
Richness**



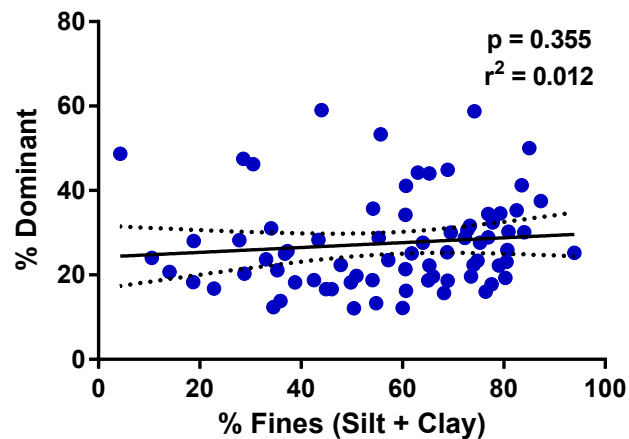
**% Fines vs. Taxa
Abundance**



**% Fines vs. % Sensitive
Taxa**

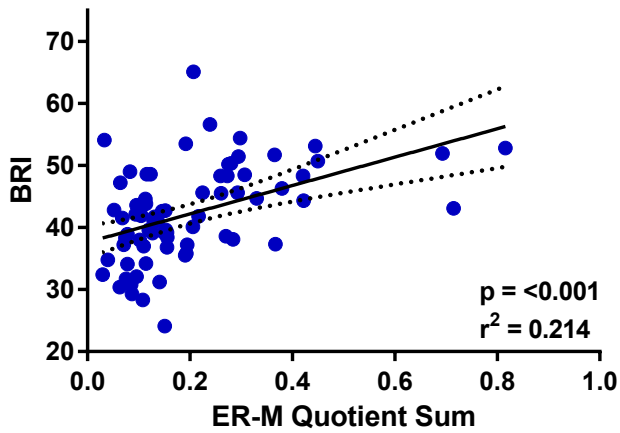


**% Fines vs. % Dominant
Taxa**

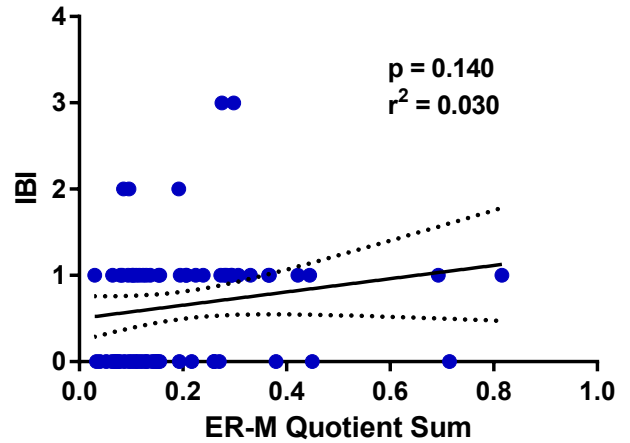


ERM-Q

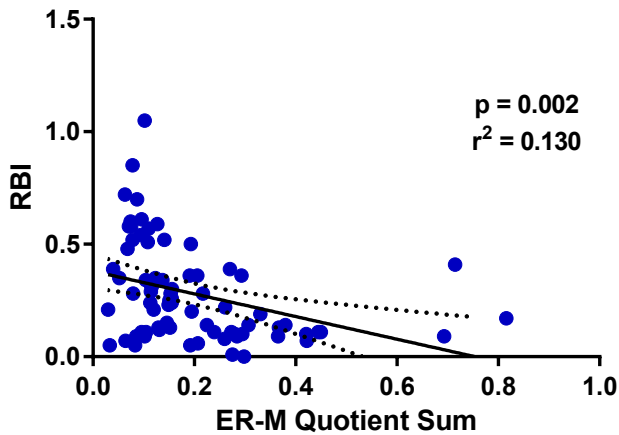
ERM-Quotient Sum vs. BRI



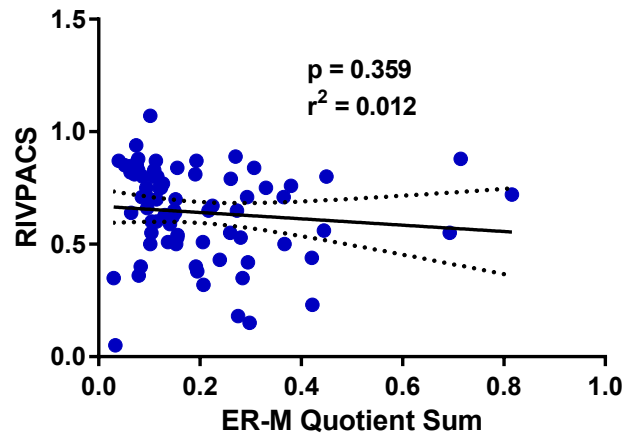
ERM-Quotient Sum vs. IBI



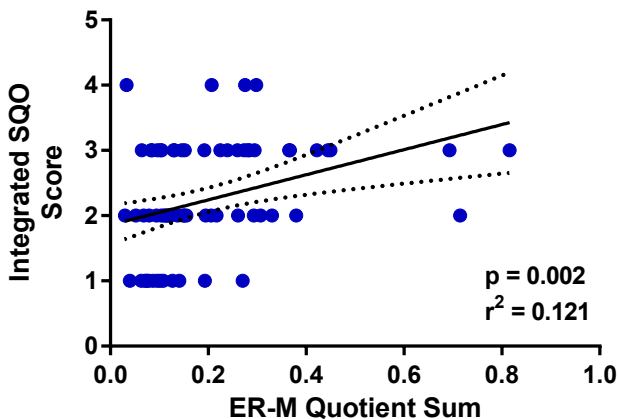
ERM-Quotient Sum vs. RBI



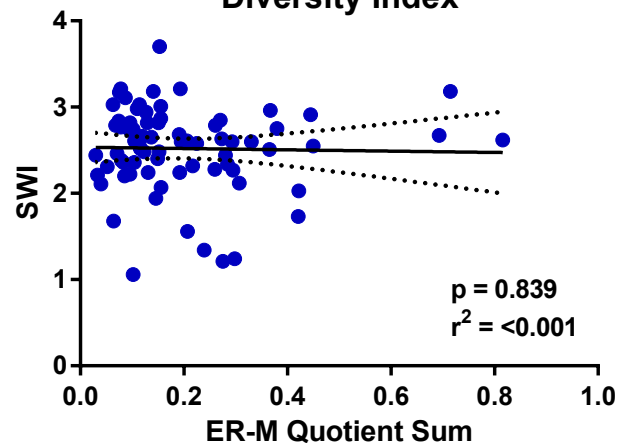
ERM-Quotient Sum vs. RIVPACS



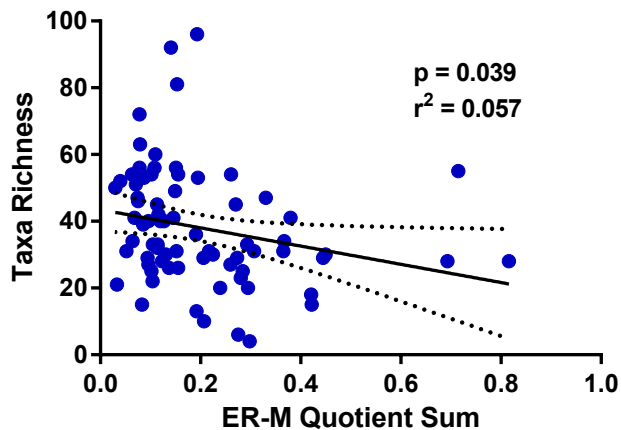
ERM-Quotient Sum vs. Integrated SQO Score



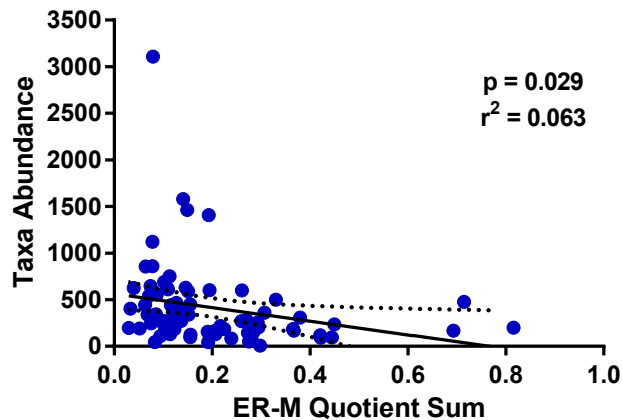
ERM-Quotient Sum vs. Shannon-Wiener Diversity Index



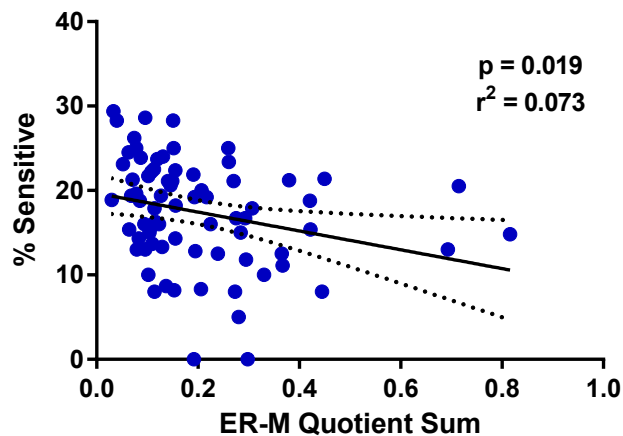
**ERM-Quotient Sum vs. Taxa
Richness**



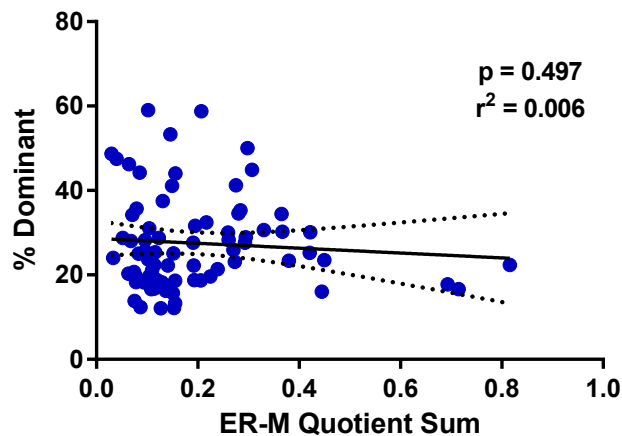
**ERM-Quotient Sum vs. Taxa
Abundance**



**ERM-Quotient Sum vs. % Sensitive
Taxa**

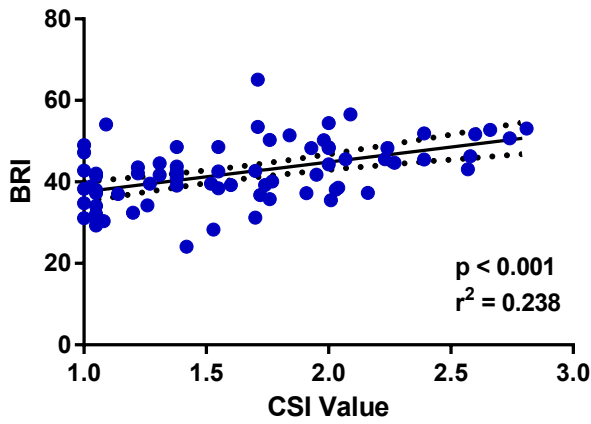


**ERM-Quotient Sum vs. % Dominant
Taxa**

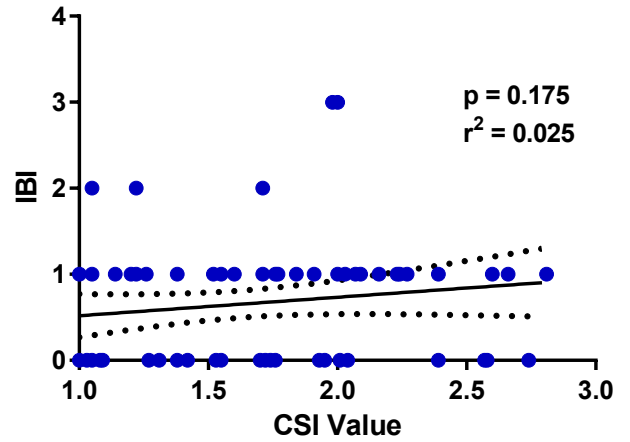


CSI

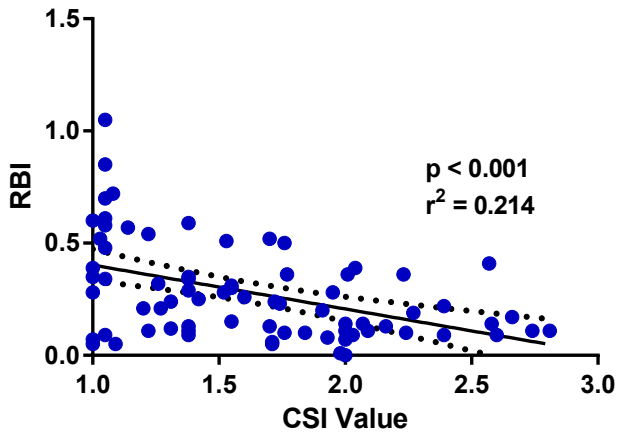
Benthic Response Index vs. Chemical Score Index



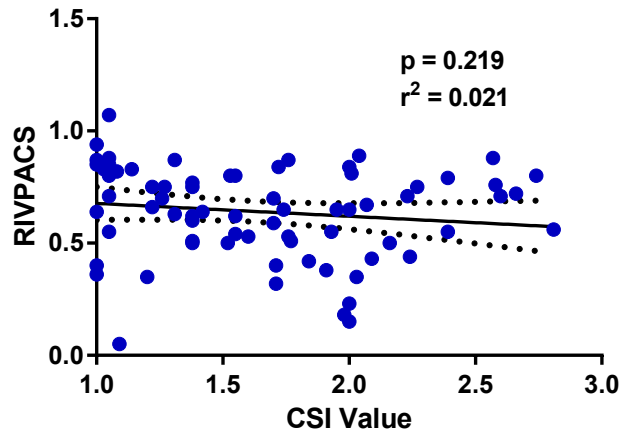
CSI Value vs. IBI



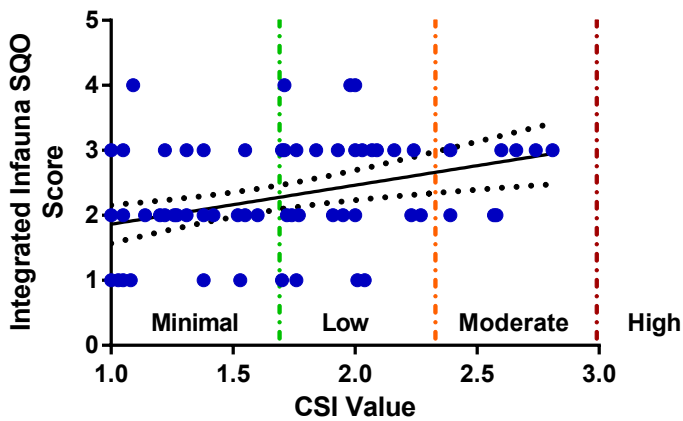
CSI Value vs. RBI



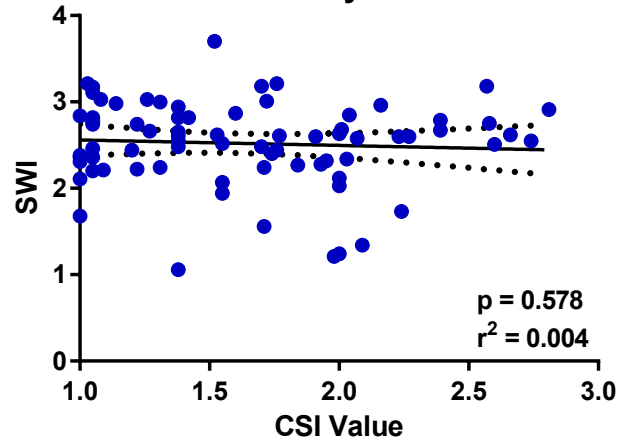
CSI Value vs. RIVPACS



CSI Value vs. Integrated Benthic Infauna SQO Score

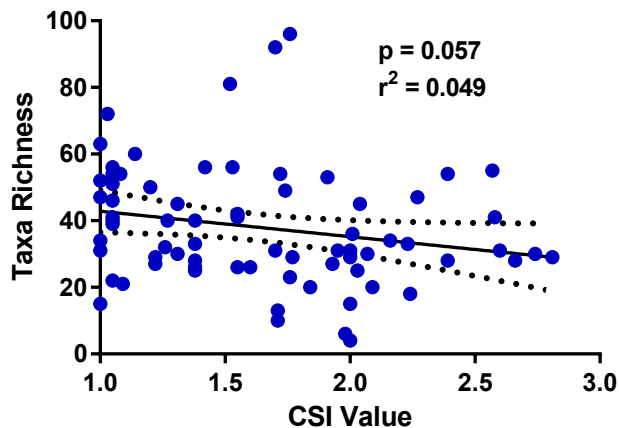


CSI Value vs. Shannon-Wiener Diversity Index

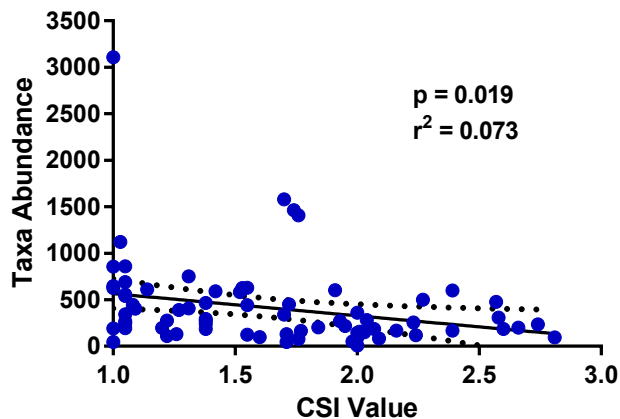


- Minimal exposure (<1.69)
- Low exposure ($\geq 1.60 - 2.33 \leq$)
- Moderate exposure ($\geq 2.33 - 2.99 \leq$)
- High exposure (> 2.99)

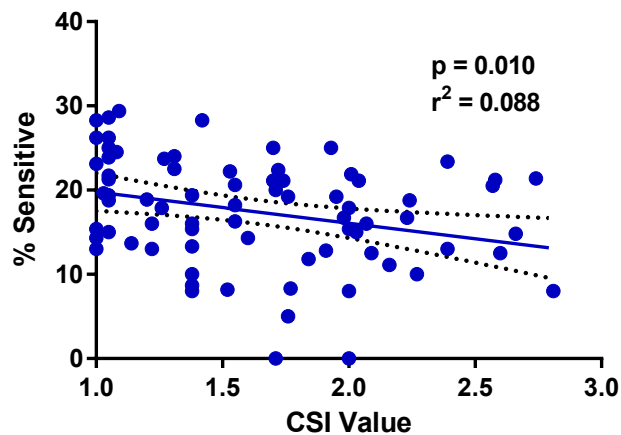
**CSI Value vs. Taxa
Richness**



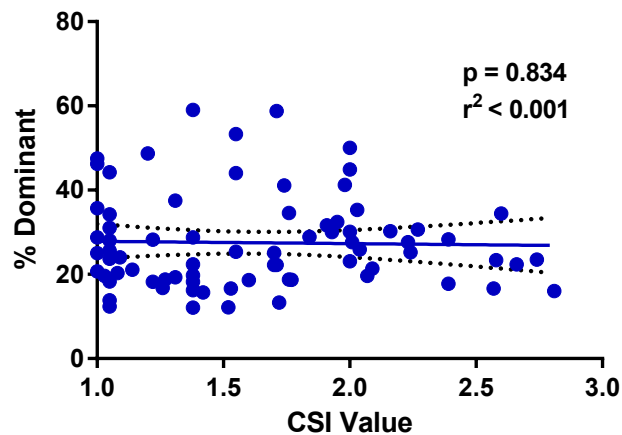
**CSI Value vs. Taxa
Abundance**



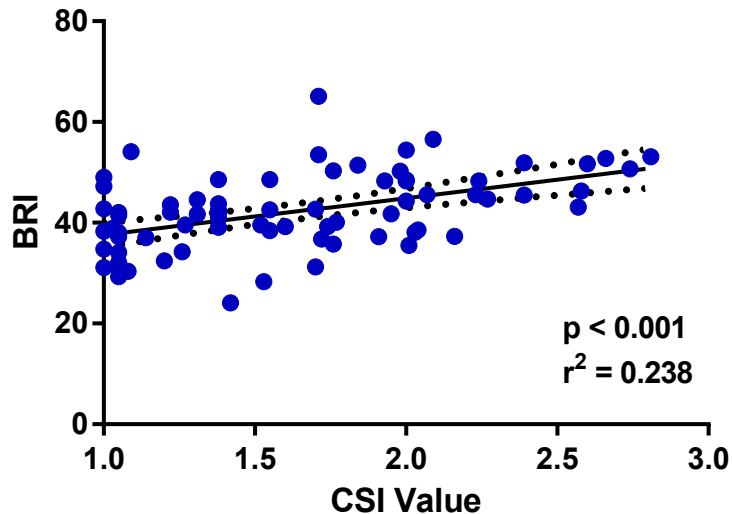
**CSI Value vs. % Sensitive
Taxa**



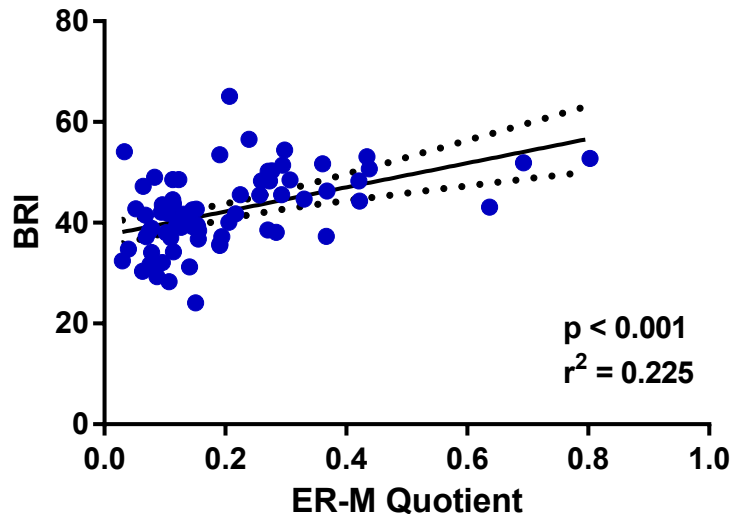
**CSI Value vs. % Dominant
Taxa**



**Benthic Response Index vs.
Chemical Score Index**



**Benthic Response Index vs.
ER-M Quotient Value**



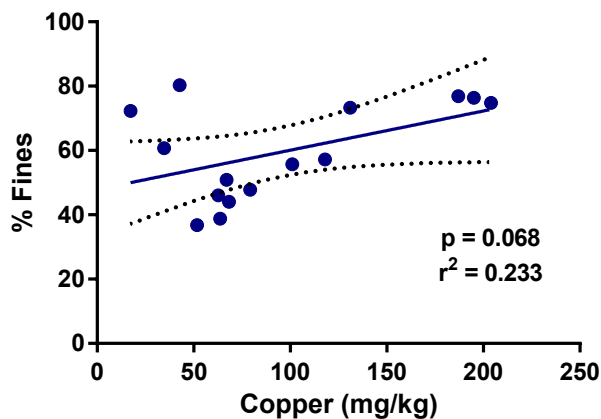
Regression Plots

Select Chemicals Compared
to Benthic Community
Measures Strata

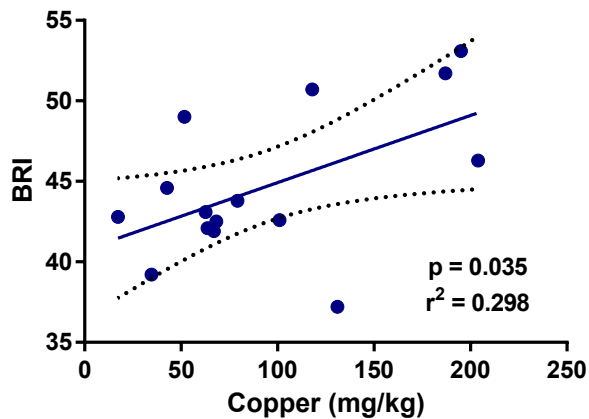
Marina, Port/Industrial, and
Freshwater Strata

Copper

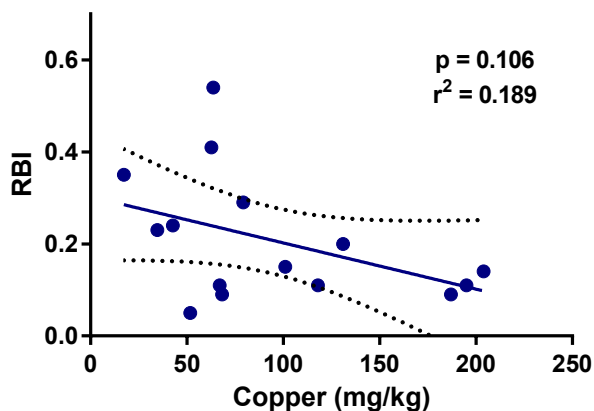
**Copper vs Fines
Freshwater Stratum**



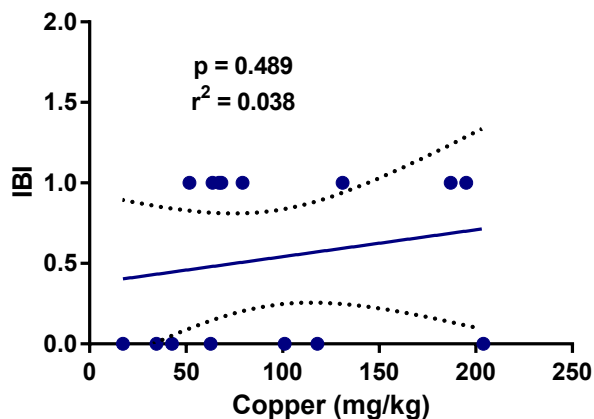
**Copper vs BRI
Freshwater Stratum**



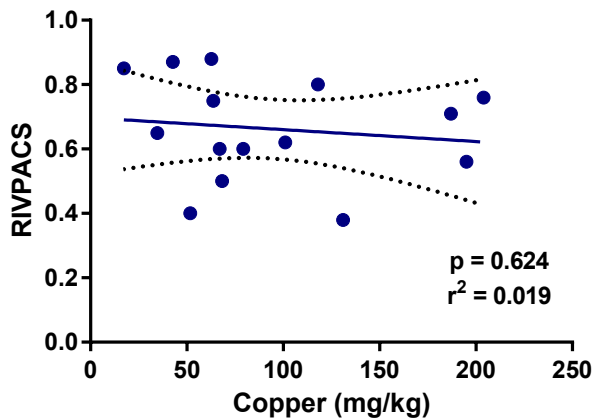
**Copper vs RBI
Freshwater Stratum**



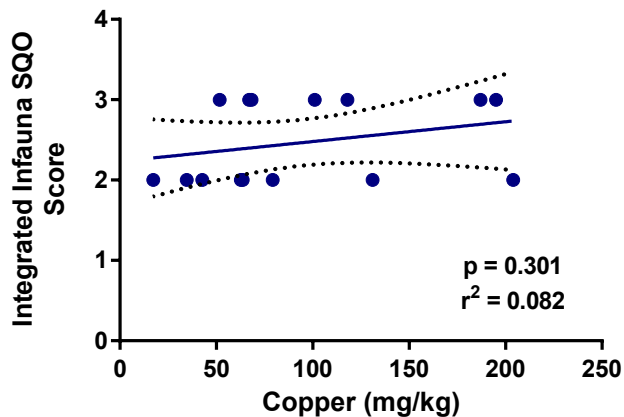
**Copper vs IBI
Freshwater Stratum**



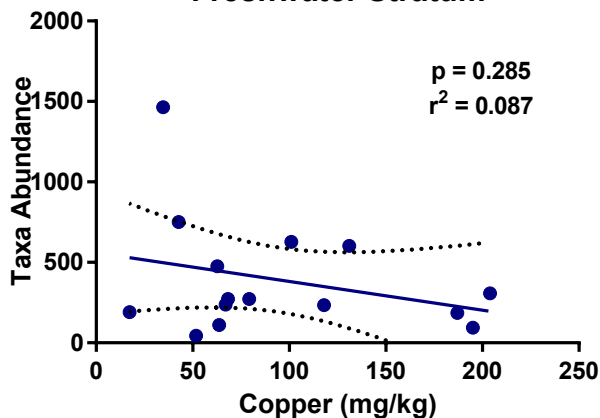
**Copper vs RIVPACS
Freshwater Stratum**



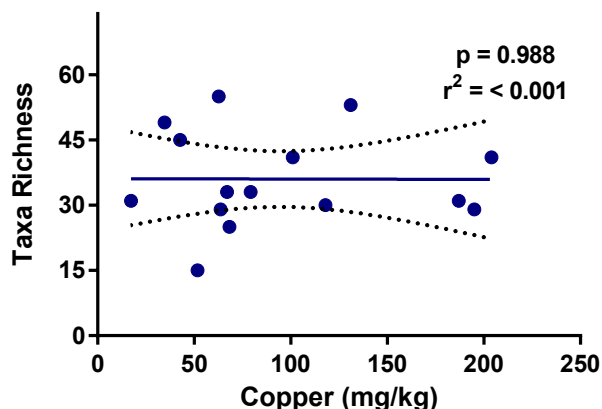
**Copper vs Integrated Benthic SQO Score
Freshwater Stratum**



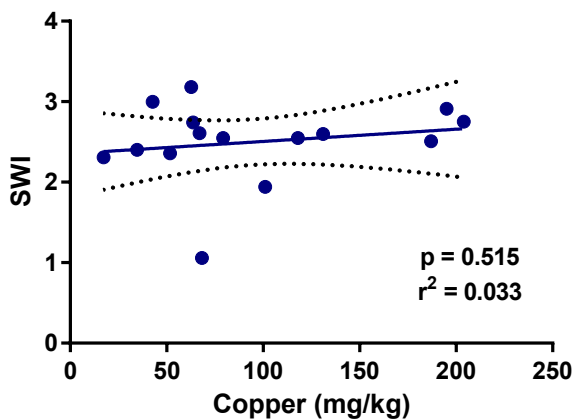
**Copper vs Taxa Abundance
Freshwater Stratum**



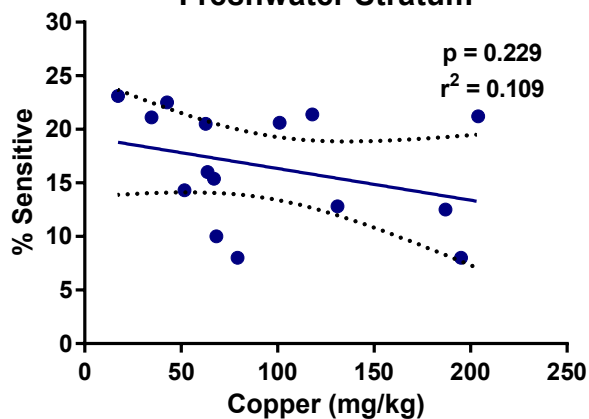
**Copper vs Taxa Richness
Freshwater Stratum**



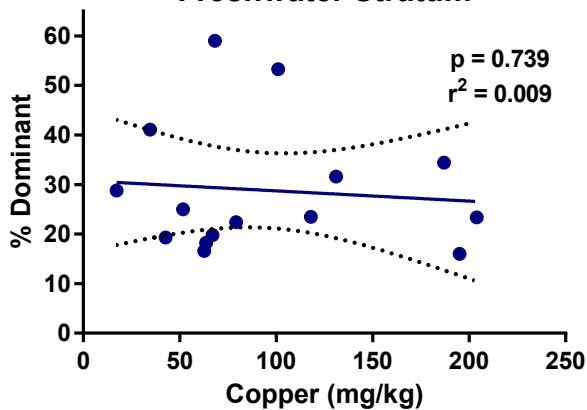
**Copper vs Shannon Weiner Diversity Index
Freshwater Stratum**



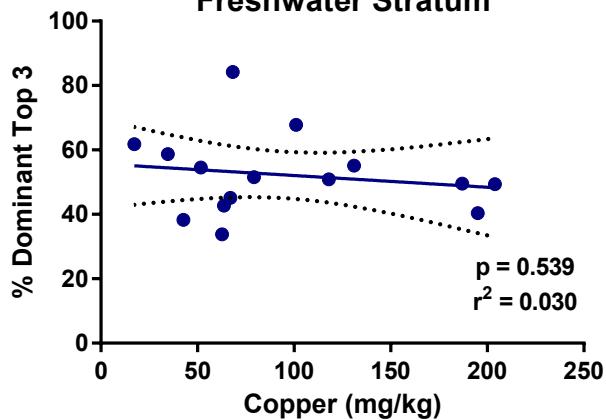
**Copper vs % Sensitive Species
Freshwater Stratum**



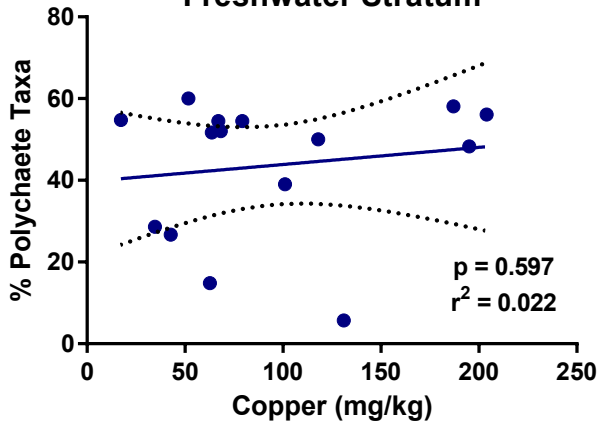
**Copper vs % Dominant Species
Freshwater Stratum**



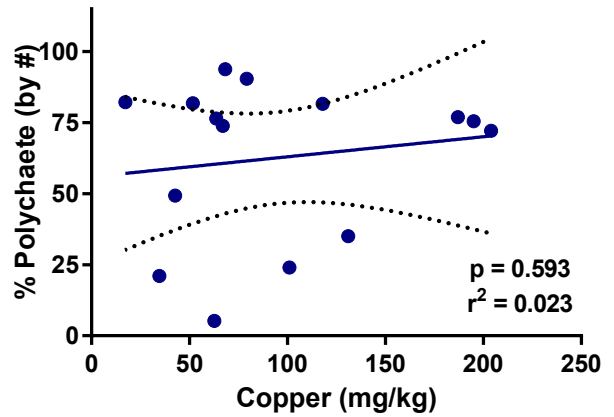
**Copper vs % Dominant Species - Top 3
Freshwater Stratum**



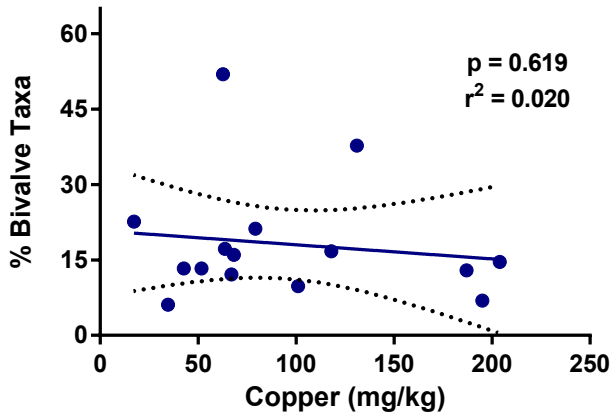
**Copper vs % Polychaete Taxa
Freshwater Stratum**



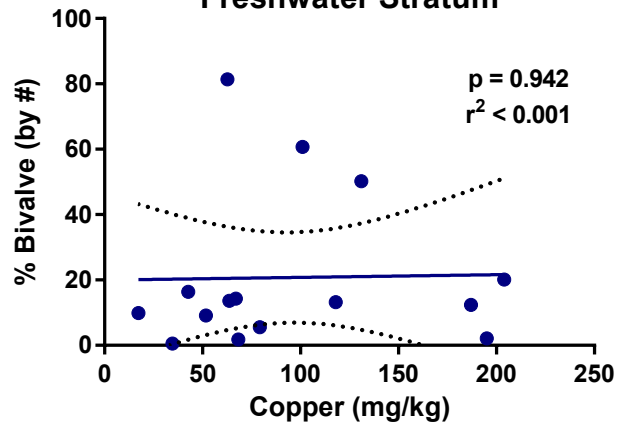
**Copper vs % Polychaete Individuals
Freshwater Stratum**



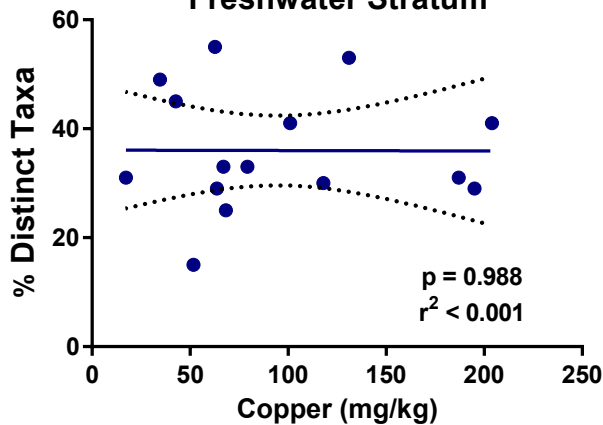
**Copper vs % Bivalve Taxa
Freshwater Stratum**



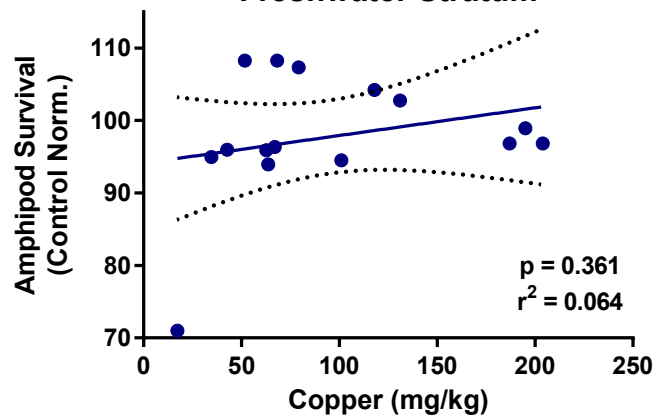
**Copper vs % Bivalve Individuals
Freshwater Stratum**



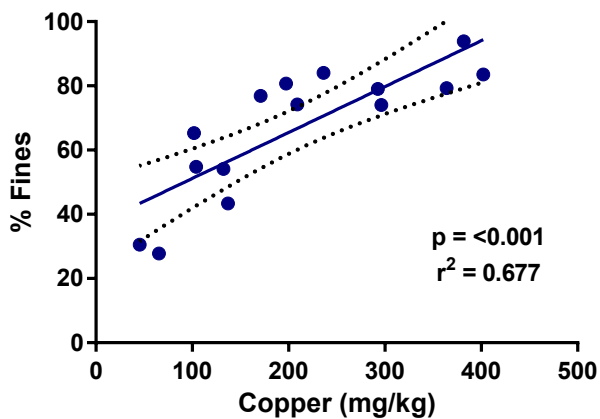
**Copper vs Distinct Taxa
Freshwater Stratum**



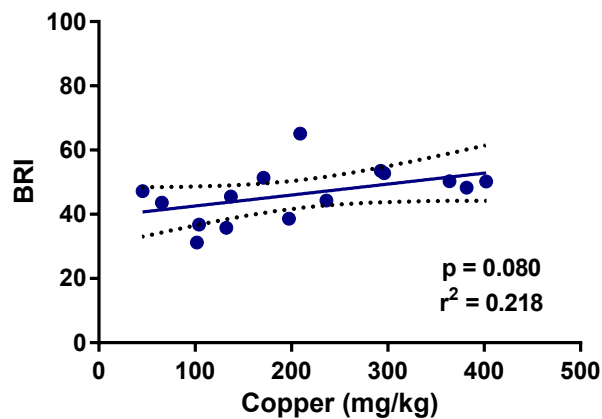
**Copper vs Amphipod Survival
Freshwater Stratum**



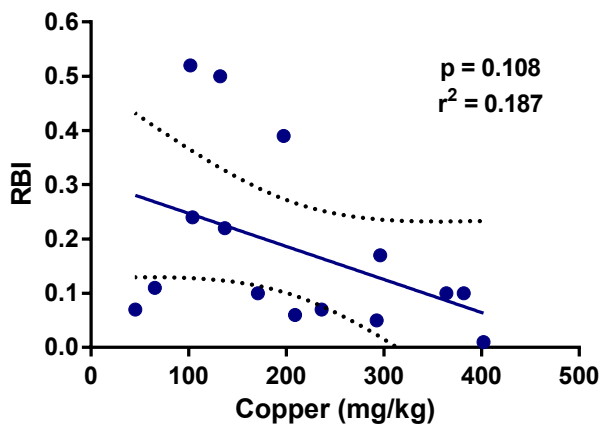
**Copper vs Fines
Marinas**



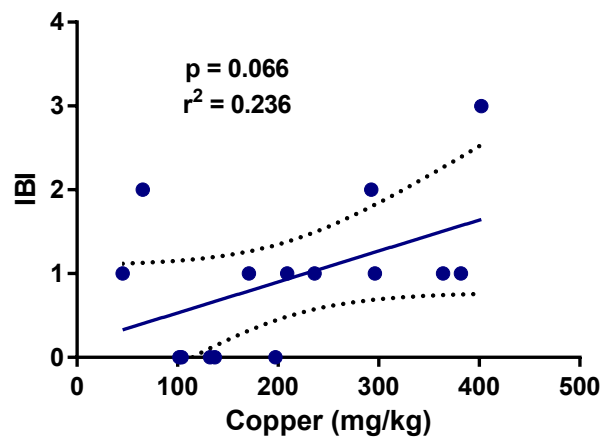
**Copper vs BRI
Marinas**



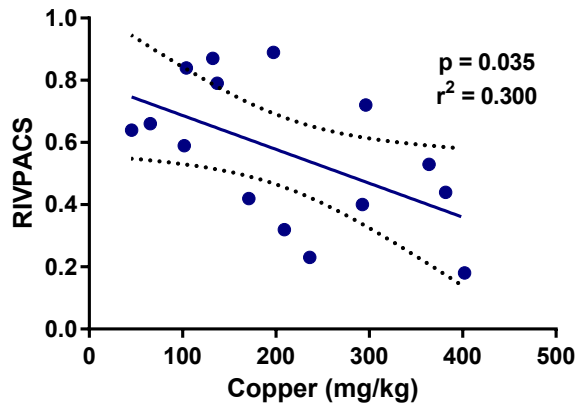
**Copper vs RBI
Marinas**



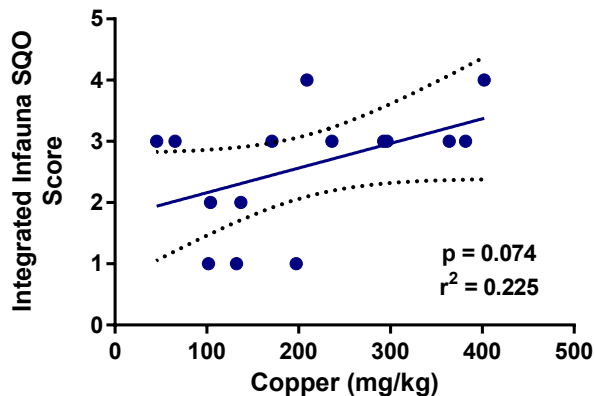
**Copper vs IBI
Marinas**



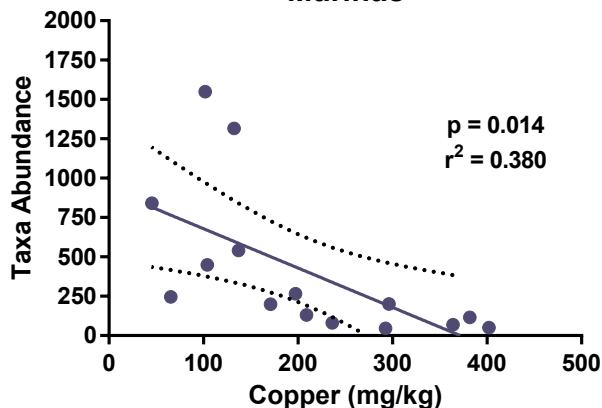
**Copper vs RIVPACS
Marinas**



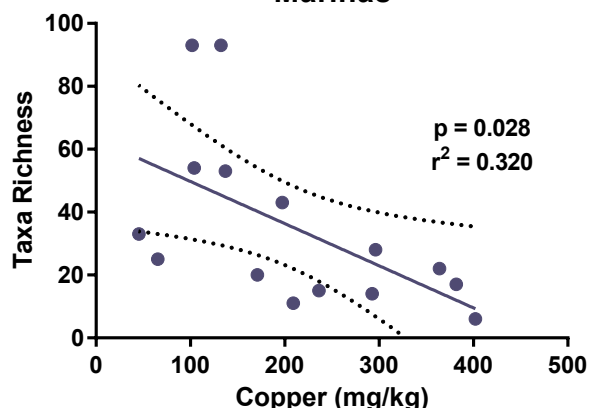
**Copper vs Integrated Benthic SQO Score
Marinas**



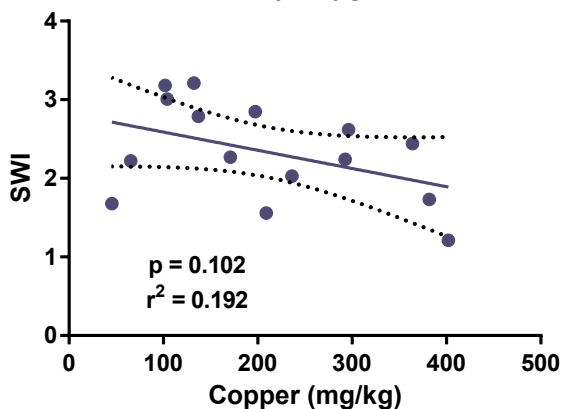
**Copper vs Taxa Abundance
Marinas**



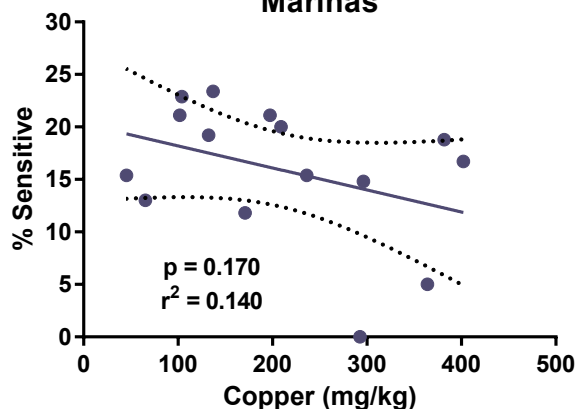
**Copper vs Taxa Richness
Marinas**



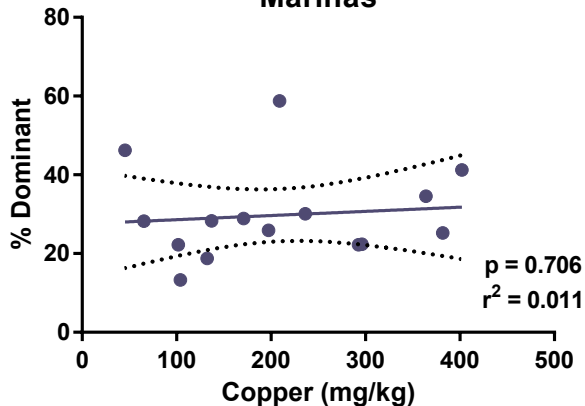
**Copper vs Shannon Weiner Diversity Index
Marinas**



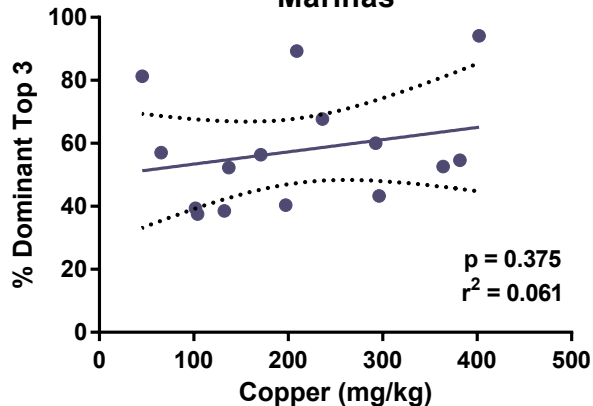
**Copper vs % Sensitive Species
Marinas**



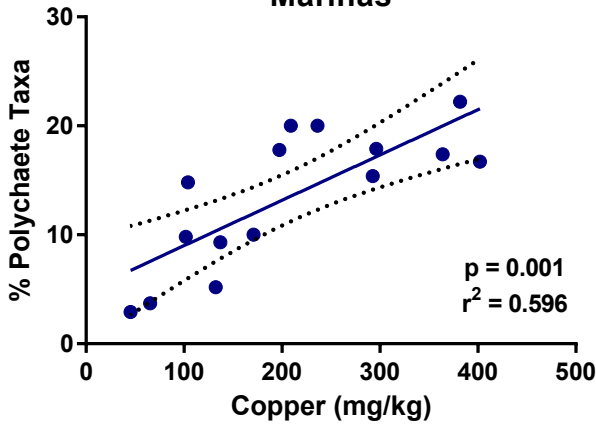
**Copper vs % Dominant Species
Marinas**



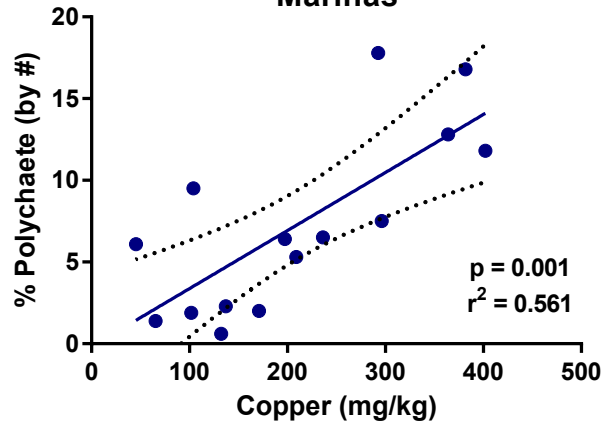
**Copper vs % Dominant Species - Top 3
Marinas**



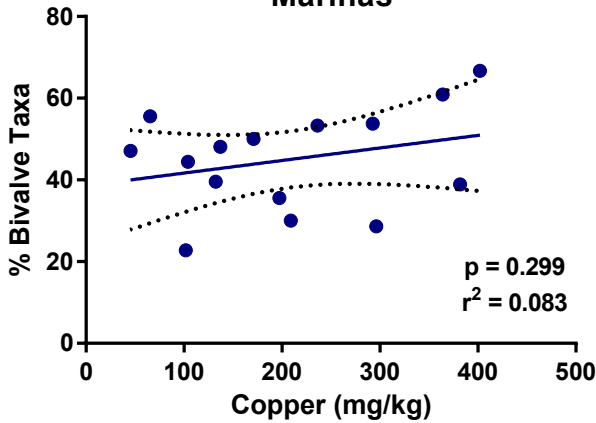
**Copper vs % Polychaete Taxa
Marinas**



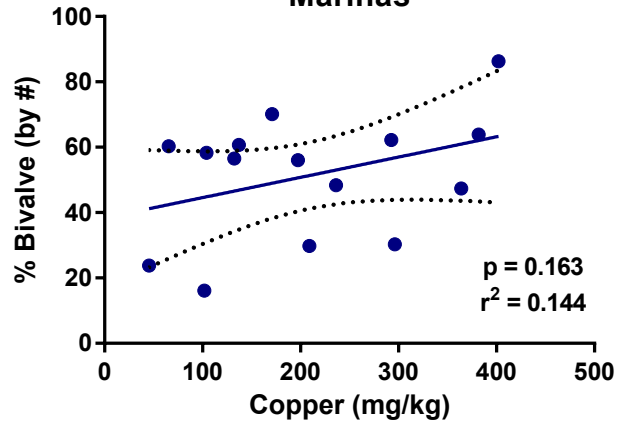
**Copper vs % Polychaete Individuals
Marinas**



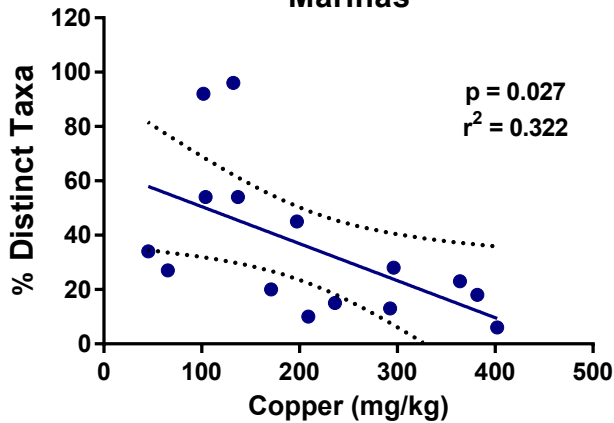
**Copper vs % Bivalve Taxa
Marinas**



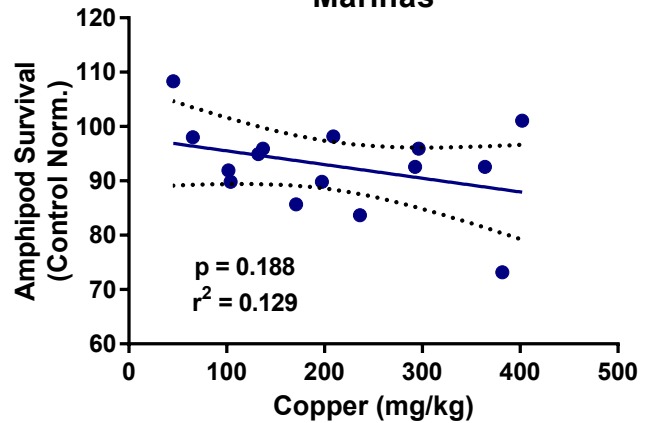
**Copper vs % Bivalve Individuals
Marinas**



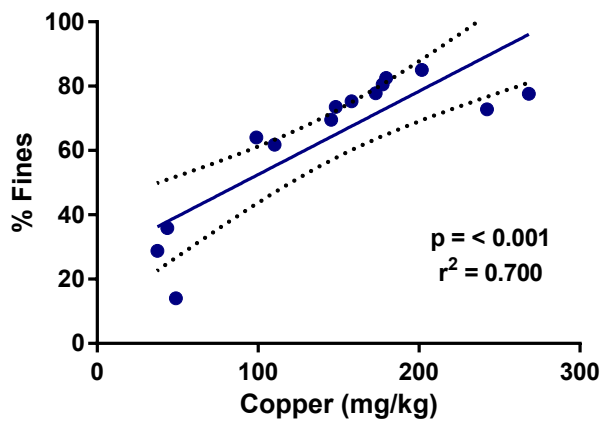
**Copper vs Distinct Taxa
Marinas**



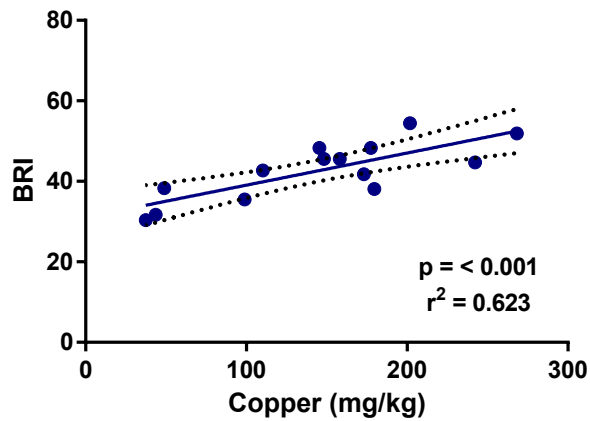
**Copper vs Amphipod Survival
Marinas**



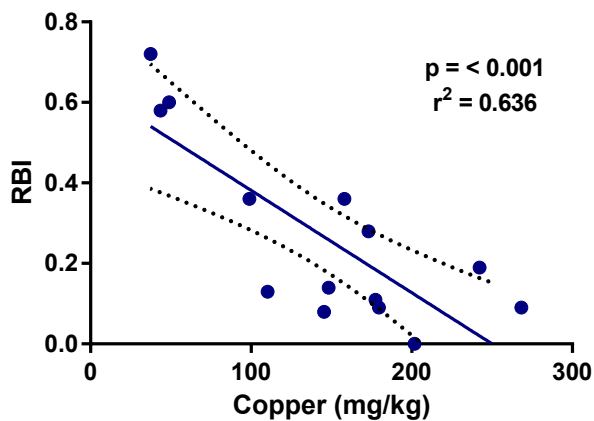
Copper vs Fines
Industrial/Port Stratum



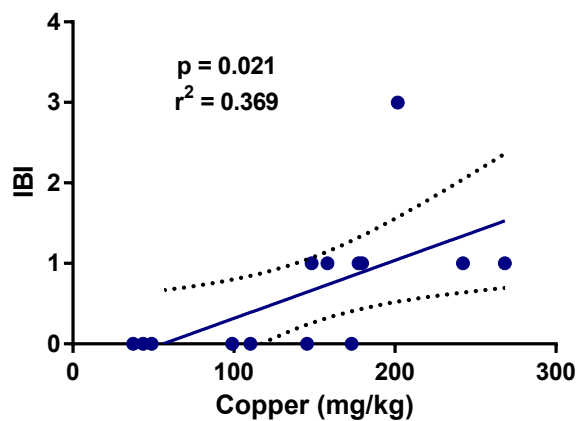
Copper vs BRI
Industrial/Port Stratum



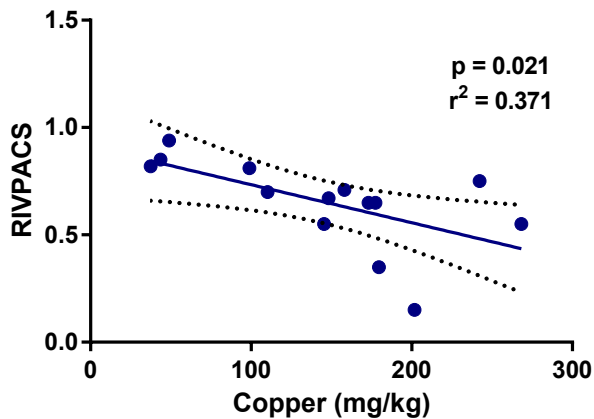
Copper vs RBI
Industrial/Port Stratum



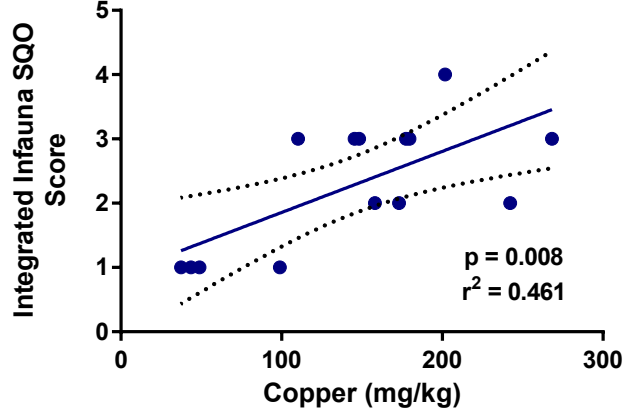
Copper vs IBI
Industrial/Port Stratum



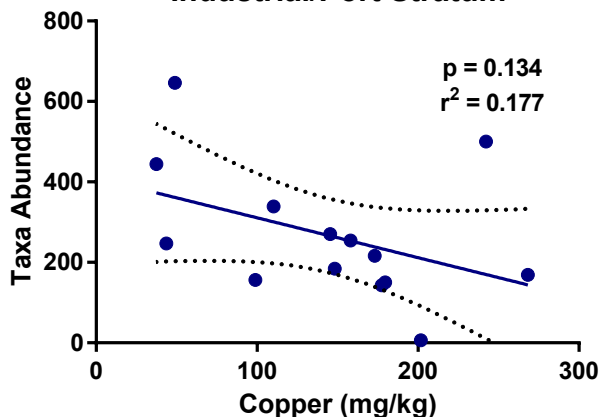
Copper vs RIVPACS
Industrial/Port Stratum



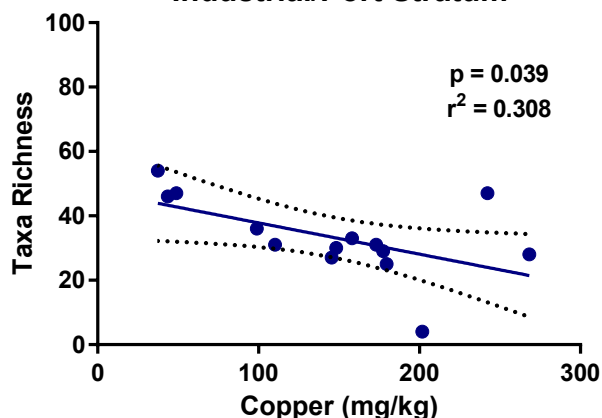
Copper vs Integrated Benthic SQO Score
Industrial/Port Stratum



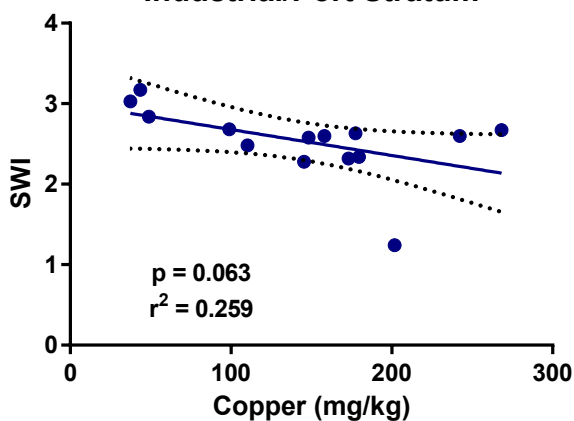
**Copper vs Taxa Abundance
Industrial/Port Stratum**



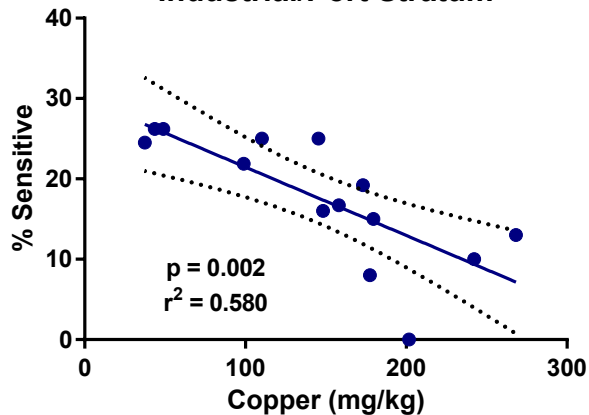
**Copper vs Taxa Richness
Industrial/Port Stratum**



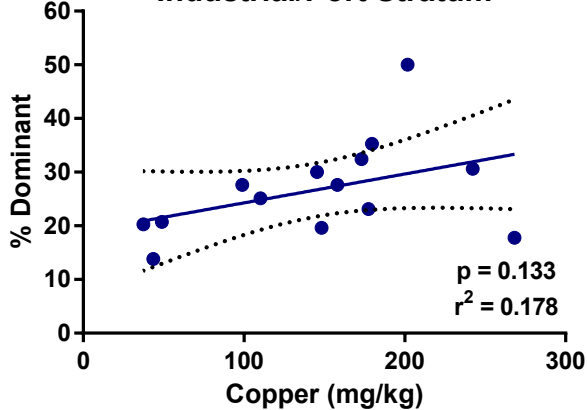
**Copper vs Shannon Weiner Diversity Index
Industrial/Port Stratum**



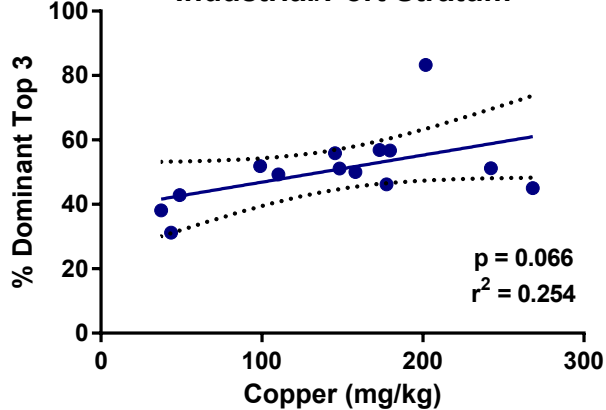
**Copper vs % Sensitive Species
Industrial/Port Stratum**



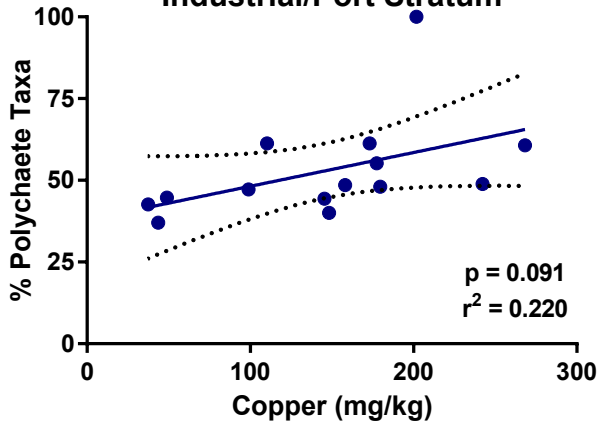
**Copper vs % Dominant Species
Industrial/Port Stratum**



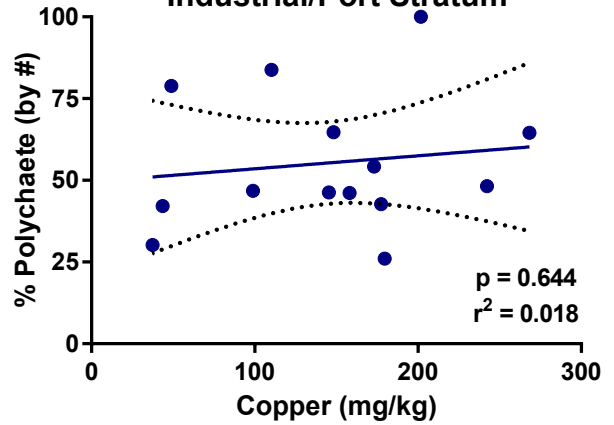
**Copper vs % Dominant Species - Top 3
Industrial/Port Stratum**



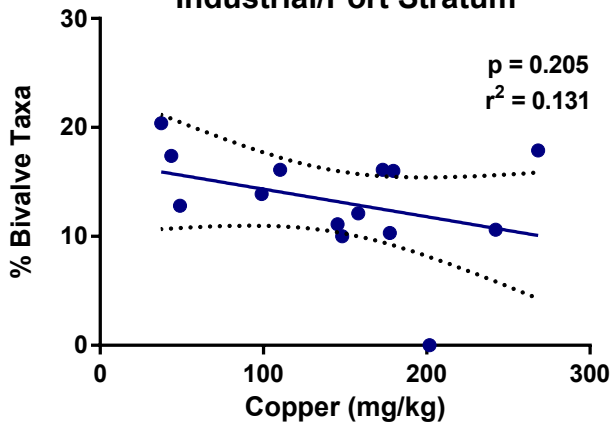
**Copper vs % Polychaete Taxa
Industrial/Port Stratum**



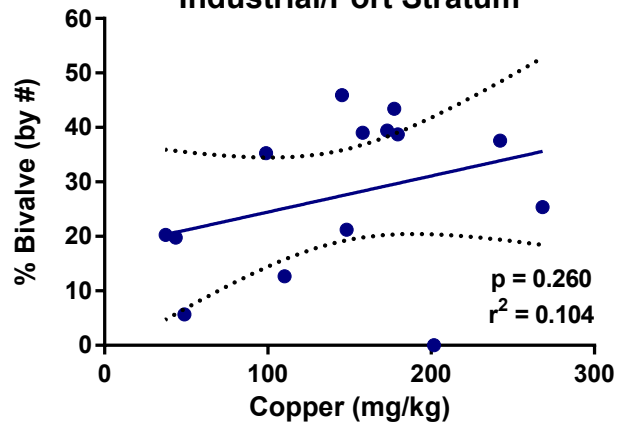
**Copper vs % Polychaete Individuals
Industrial/Port Stratum**



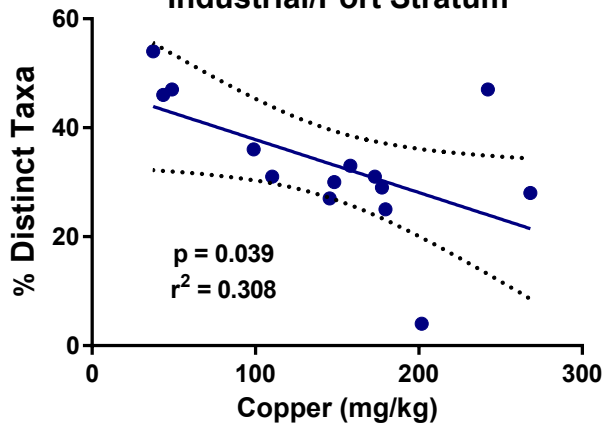
**Copper vs % Bivalve Taxa
Industrial/Port Stratum**



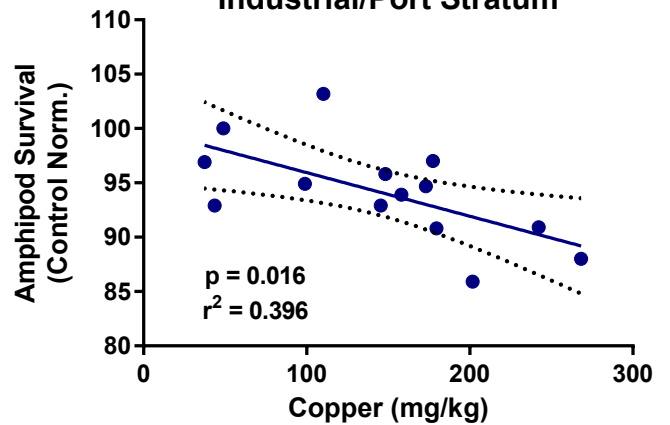
**Copper vs % Bivalve Individuals
Industrial/Port Stratum**



**Copper vs Distinct Taxa
Industrial/Port Stratum**

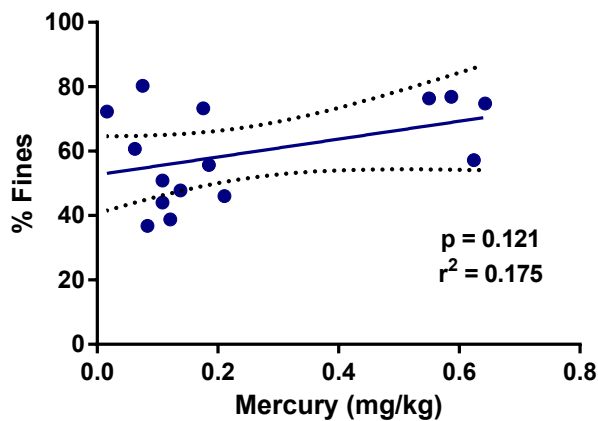


**Copper vs Amphipod Survival
Industrial/Port Stratum**

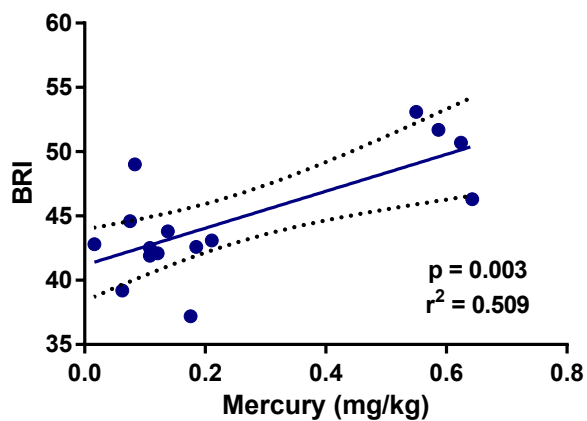


Mercury

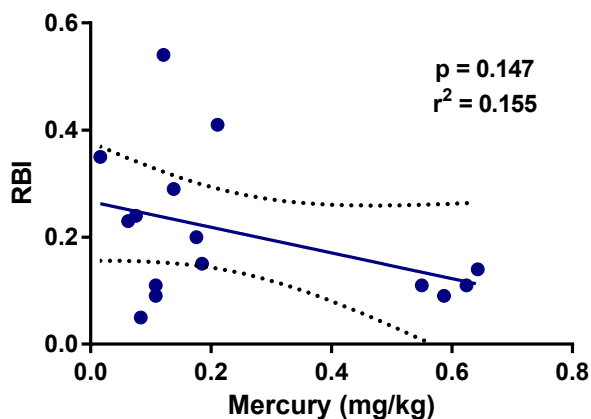
**Mercury vs Fines
Freshwater Stratum**



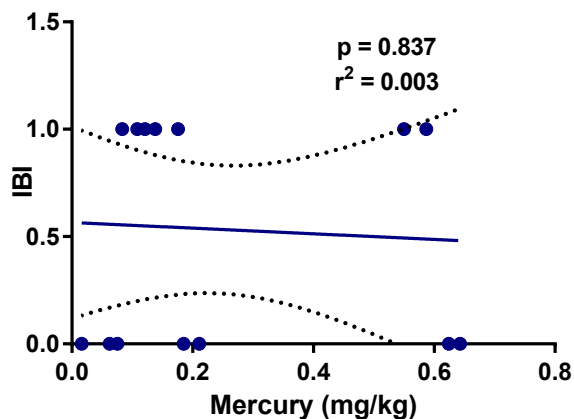
**Mercury vs BRI
Freshwater Stratum**



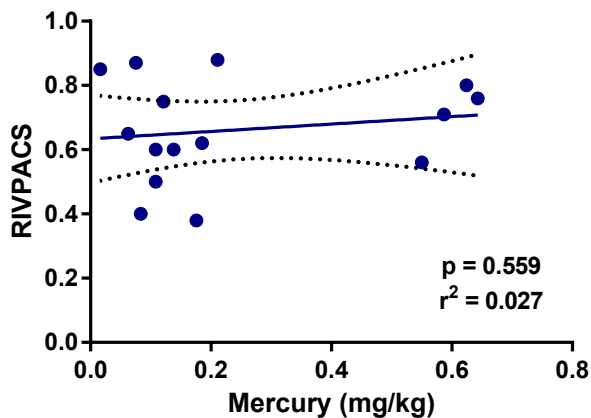
**Mercury vs RBI
Freshwater Stratum**



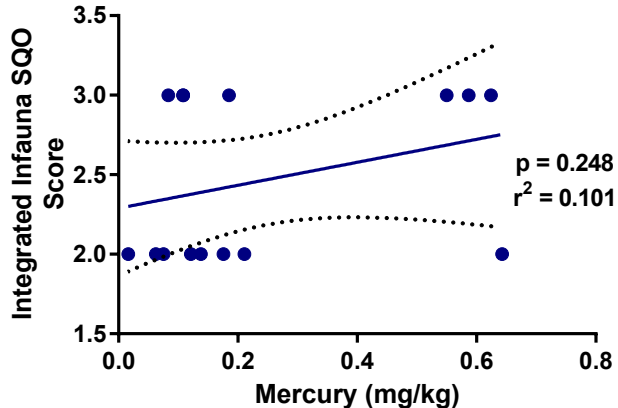
**Mercury vs IBI
Freshwater Stratum**



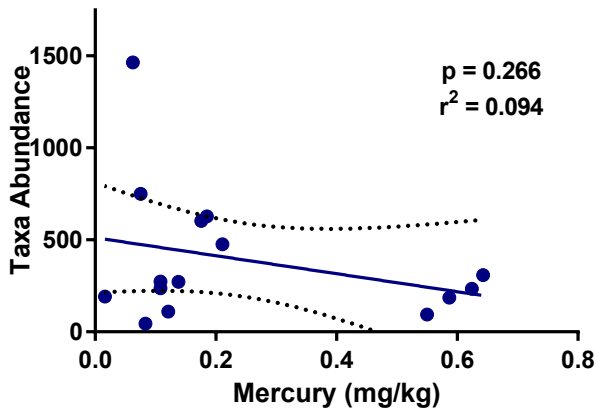
**Mercury vs RIVPACS
Freshwater Stratum**



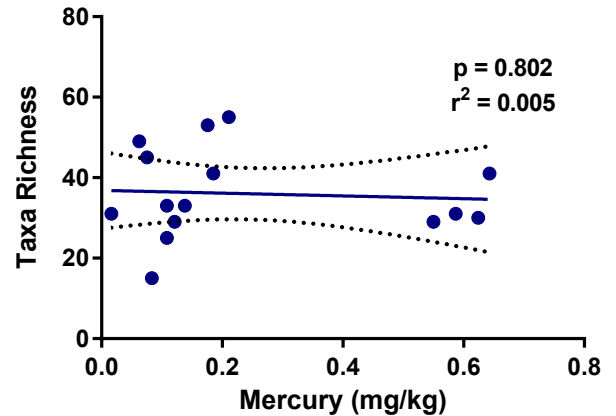
**Mercury vs Integrated Benthic SQO Score
Freshwater Stratum**



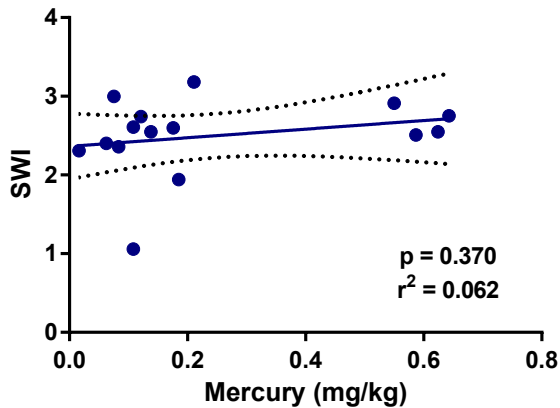
**Mercury vs Taxa Abundance
Freshwater Stratum**



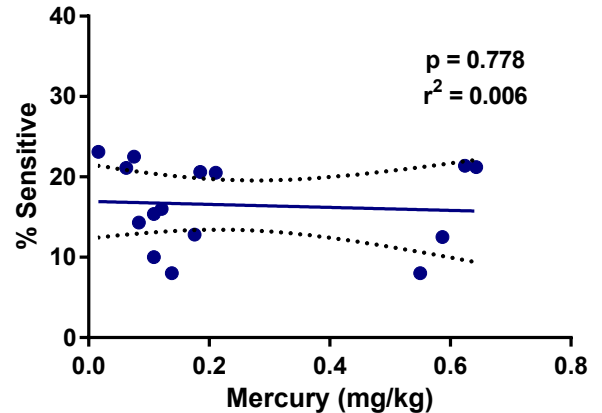
**Mercury vs Taxa Richness
Freshwater Stratum**



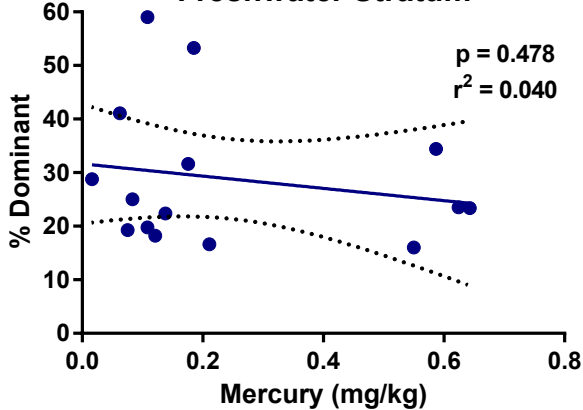
**Mercury vs Shannon Weiner Diversity Index
Freshwater Stratum**



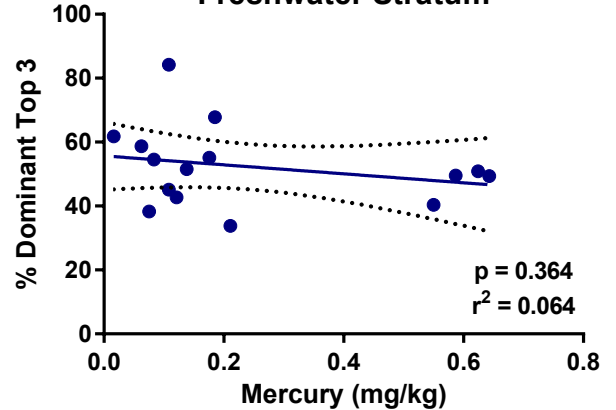
**Mercury vs % Sensitive Species
Freshwater Stratum**



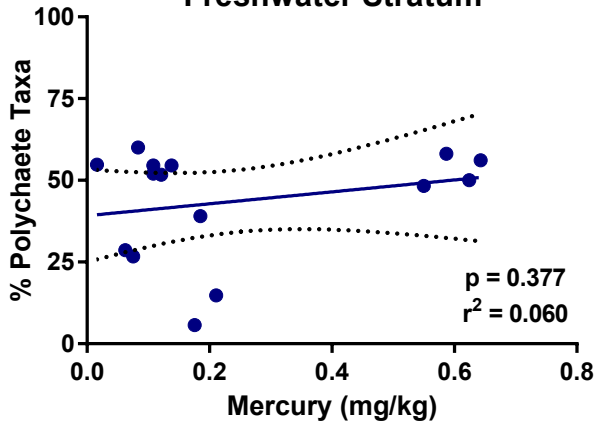
**Mercury vs % Dominant Species
Freshwater Stratum**



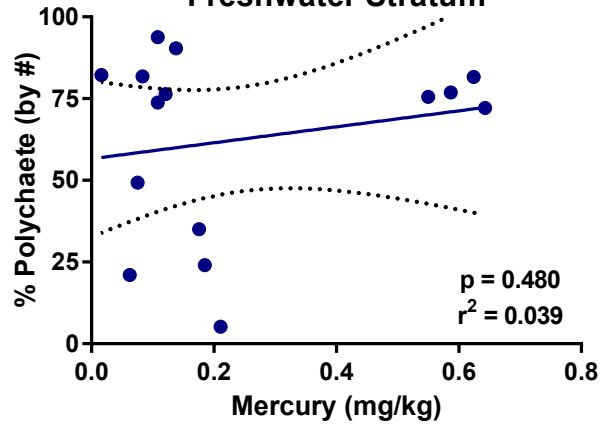
**Mercury vs % Dominant Species - Top 3
Freshwater Stratum**



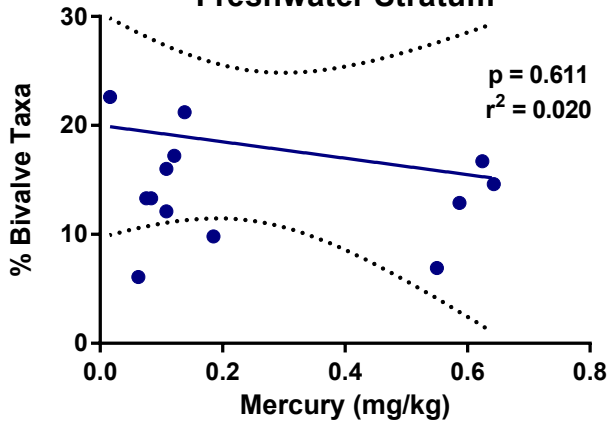
**Mercury vs % Polychaete Taxa
Freshwater Stratum**



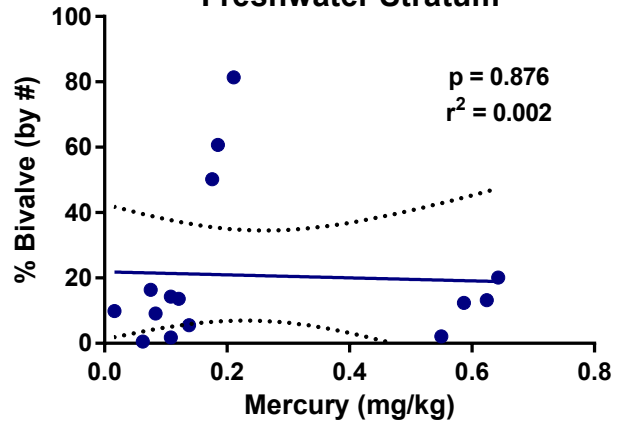
**Mercury vs % Polychaete Individuals
Freshwater Stratum**



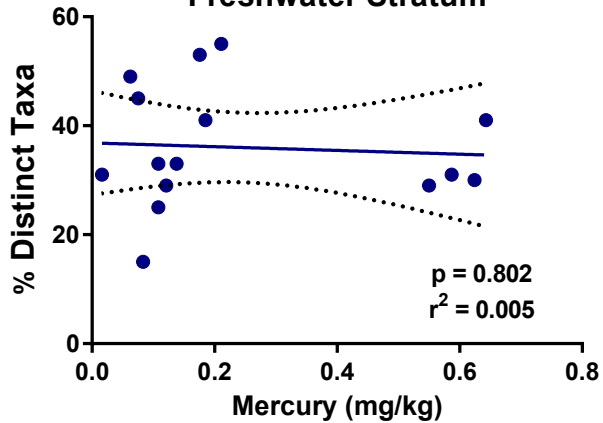
**Mercury vs % Bivalve Taxa
Freshwater Stratum**



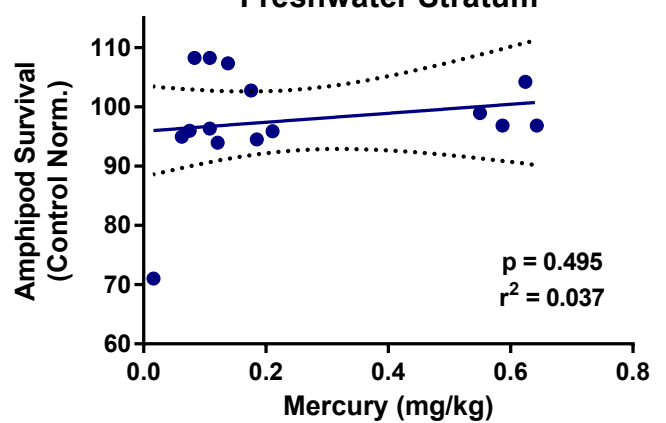
**Mercury vs % Bivalve Individuals
Freshwater Stratum**



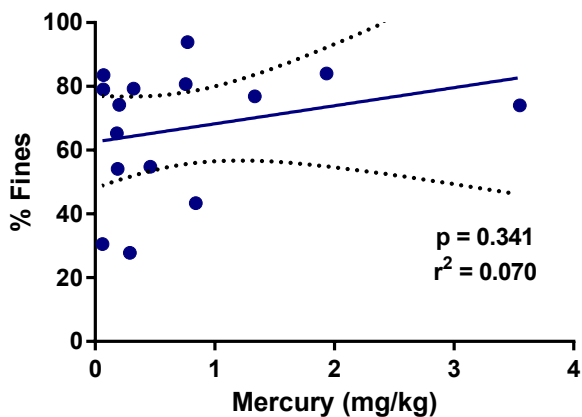
**Mercury vs Distinct Taxa
Freshwater Stratum**



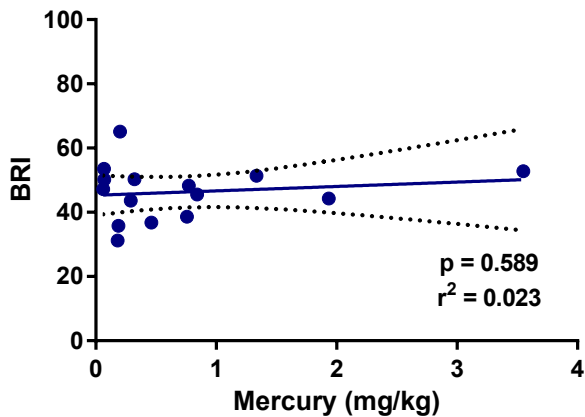
**Mercury vs Amphipod Survival
Freshwater Stratum**



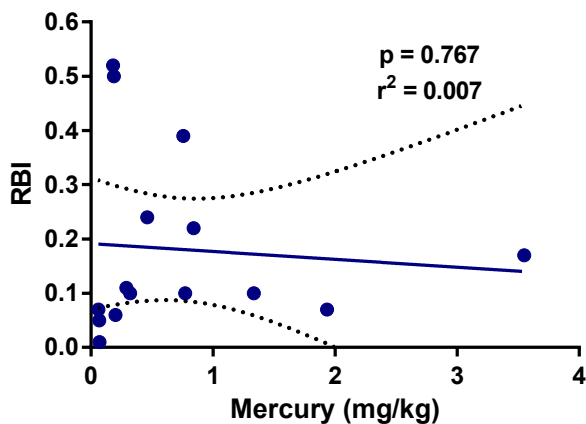
**Mercury vs Fines
Marinas**



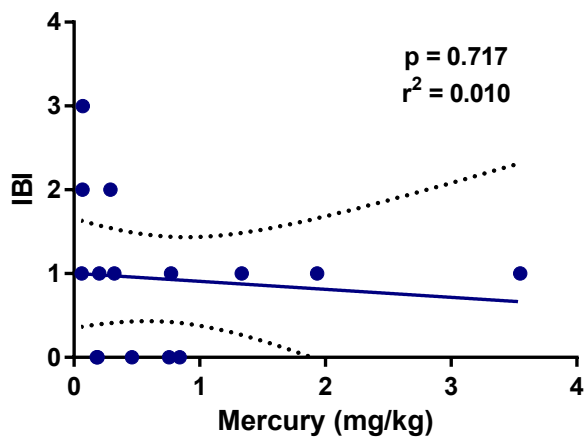
**Mercury vs BRI
Marinas**



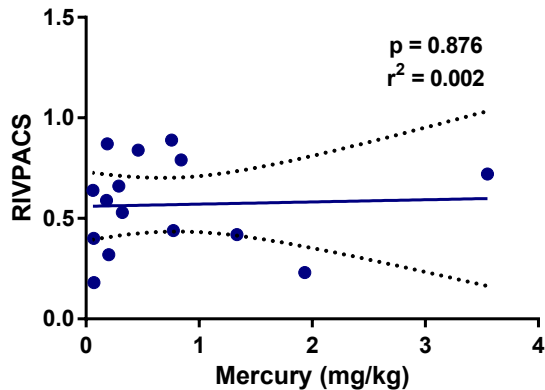
**Mercury vs RBI
Marinas**



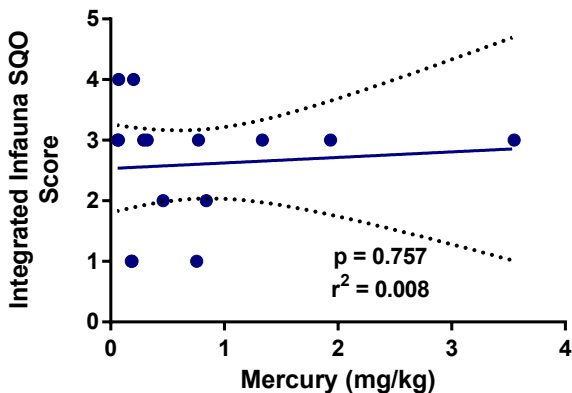
**Mercury vs IBI
Marinas**



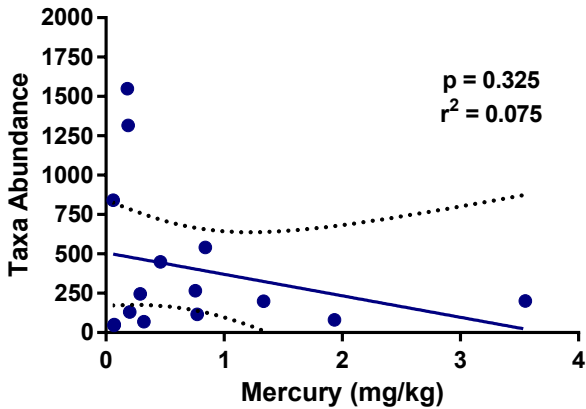
**Mercury vs RIVPACS
Marinas**



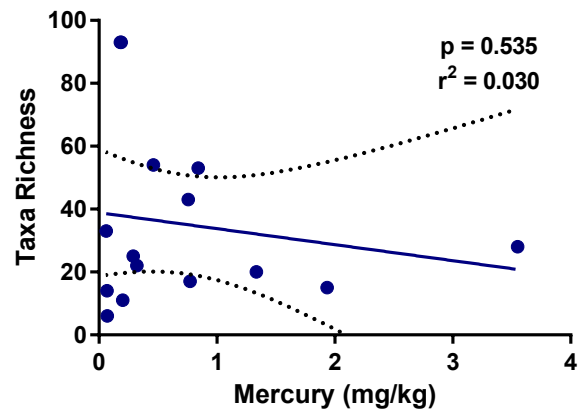
**Mercury vs Integrated Benthic SQO Score
Marinas**



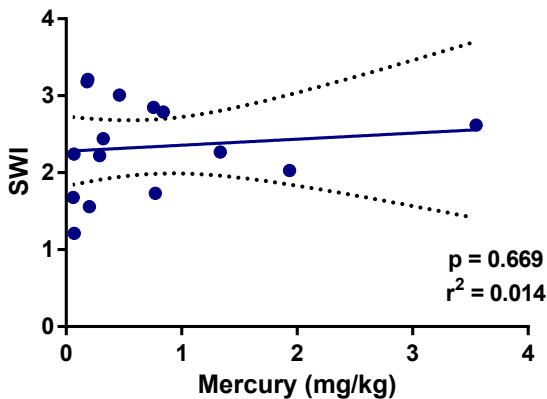
**Mercury vs Taxa Abundance
Marinas**



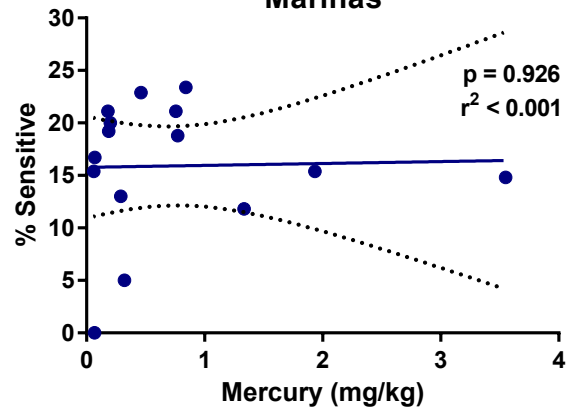
**Mercury vs Taxa Richness
Marinas**



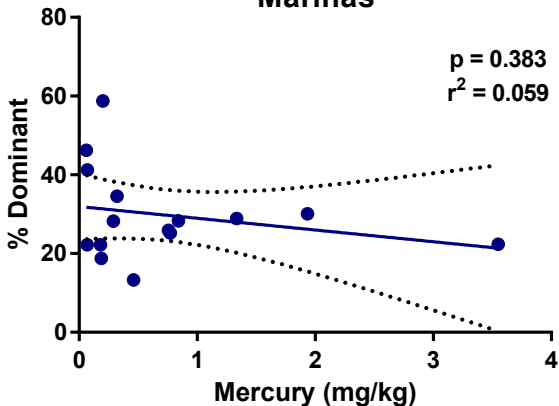
**Mercury vs Shannon Weiner Diversity Index
Marinas**



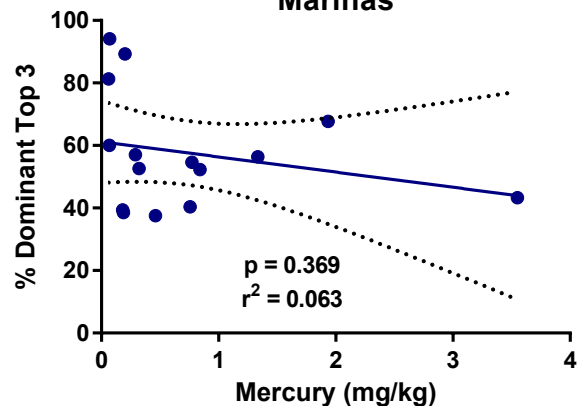
**Mercury vs % Sensitive Species
Marinas**



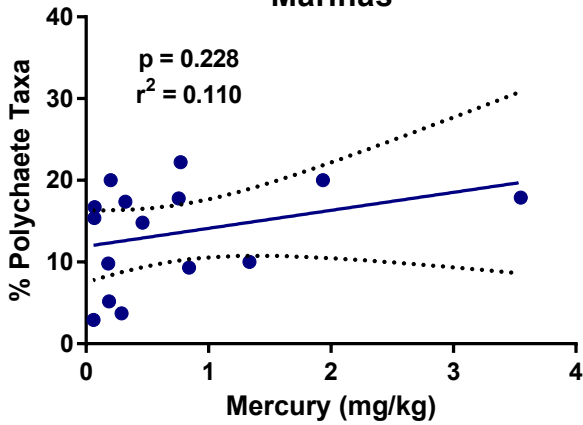
**Mercury vs % Dominant Species
Marinas**



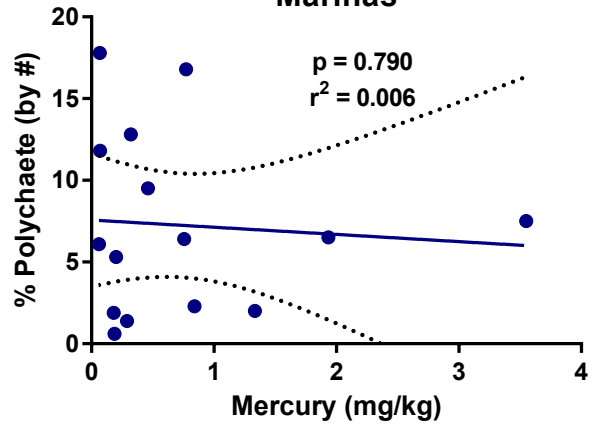
**Mercury vs % Dominant Species - Top 3
Marinas**



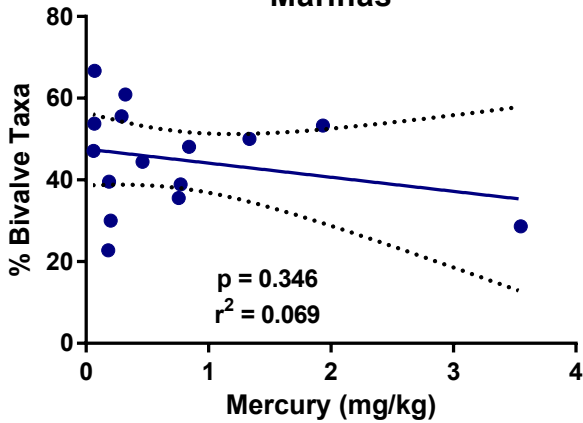
**Mercury vs % Polychaete Taxa
Marinas**



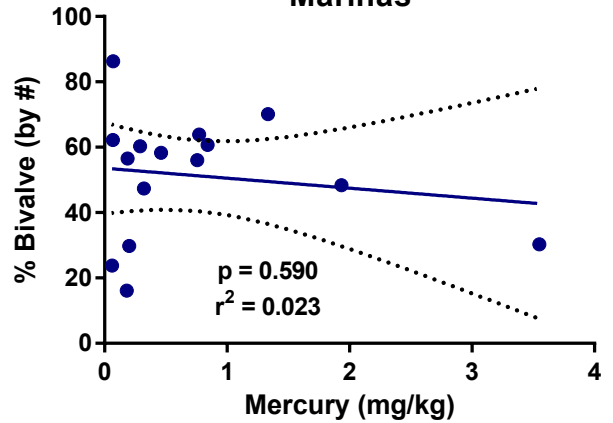
**Mercury vs % Polychaete Individuals
Marinas**



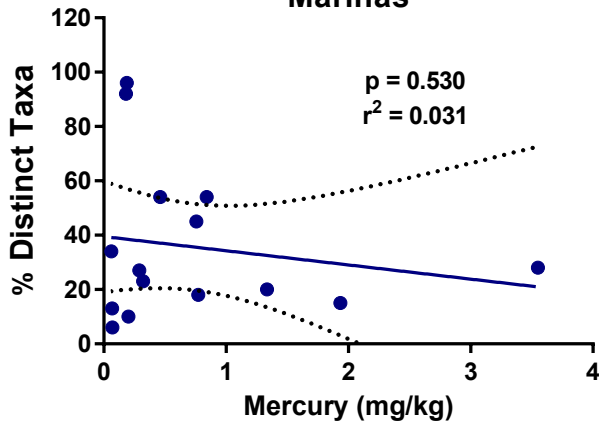
**Mercury vs % Bivalve Taxa
Marinas**



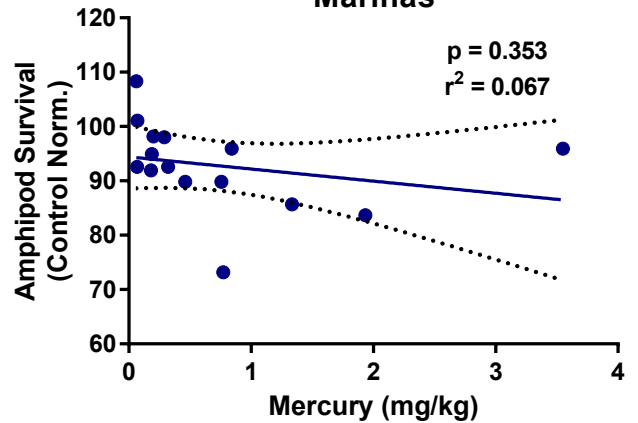
**Mercury vs % Bivalve Individuals
Marinas**



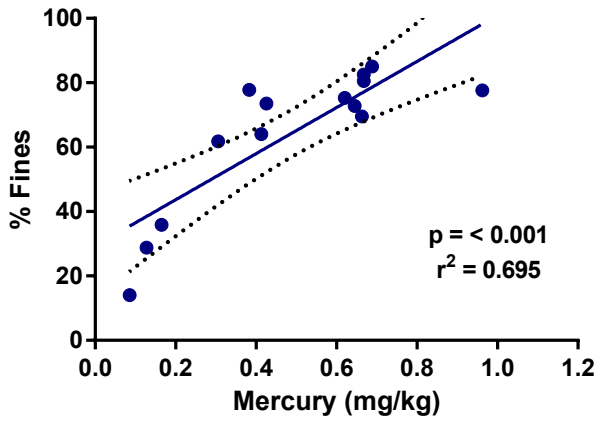
**Mercury vs Distinct Taxa
Marinas**



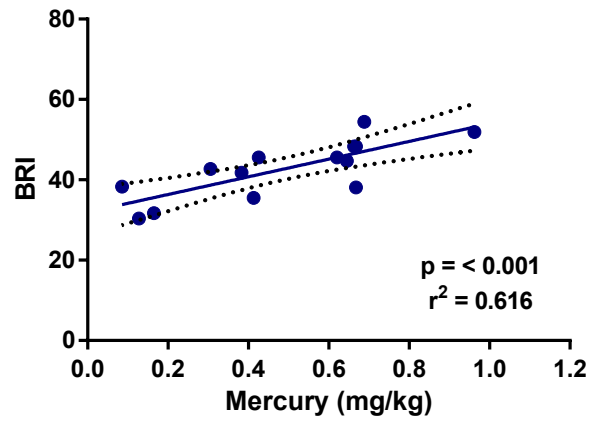
**Mercury vs Amphipod Survival
Marinas**



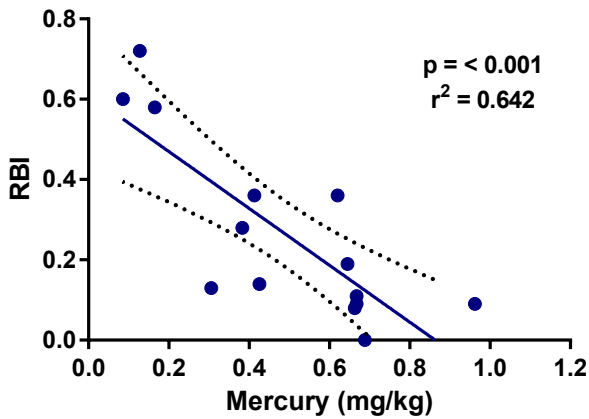
**Mercury vs Fines
Industrial/Port Stratum**



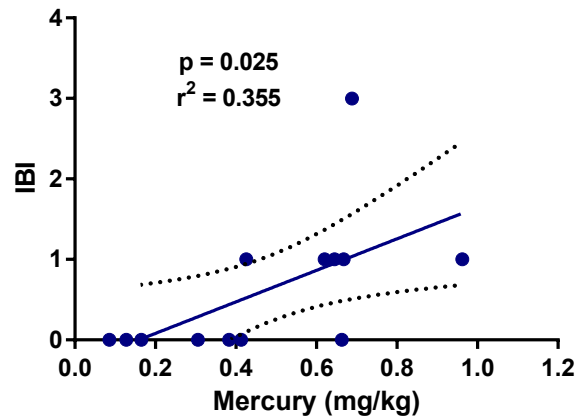
**Mercury vs BRI
Industrial/Port Stratum**



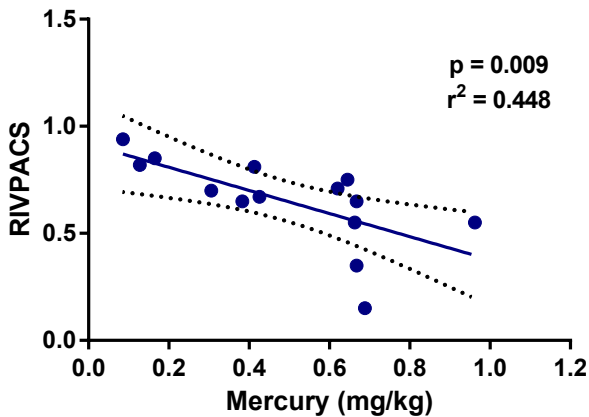
**Mercury vs RBI
Industrial/Port Stratum**



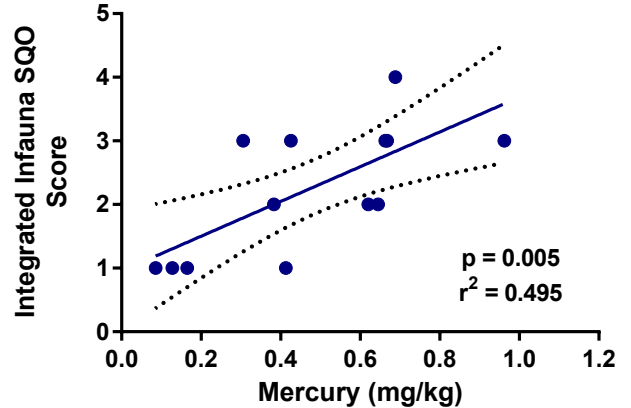
**Mercury vs IBI
Industrial/Port Stratum**



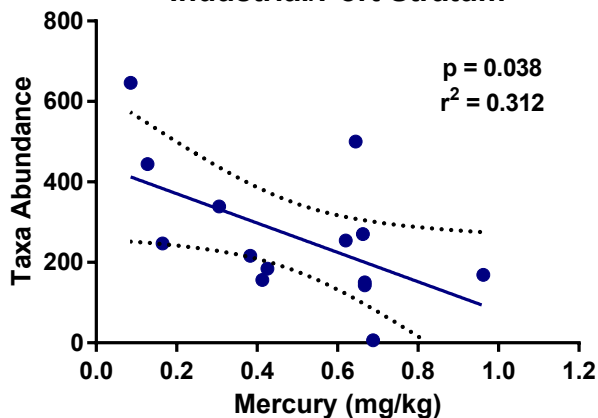
**Mercury vs RIVPACS
Industrial/Port Stratum**



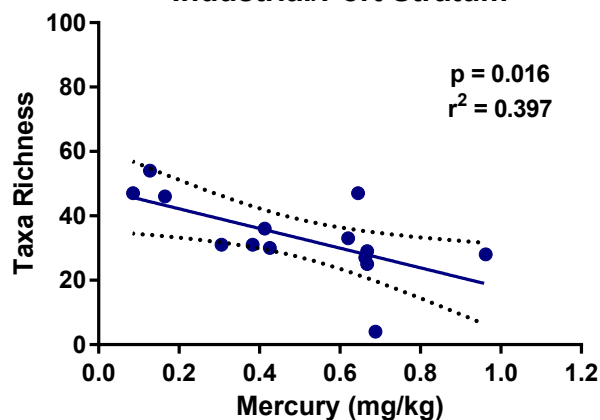
**Mercury vs Integrated Benthic SQO Score
Industrial/Port Stratum**



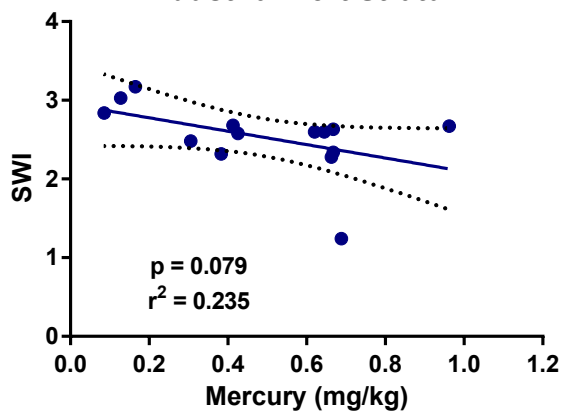
**Mercury vs Taxa Abundance
Industrial/Port Stratum**



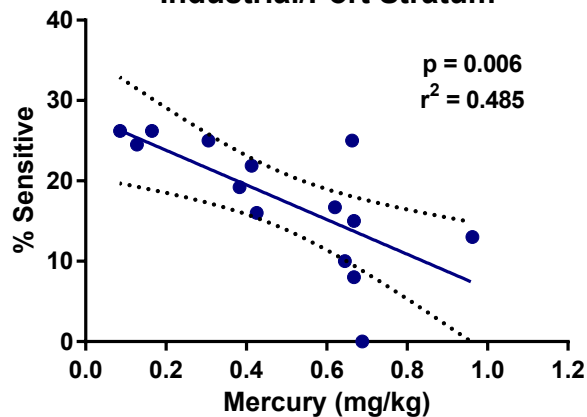
**Mercury vs Taxa Richness
Industrial/Port Stratum**



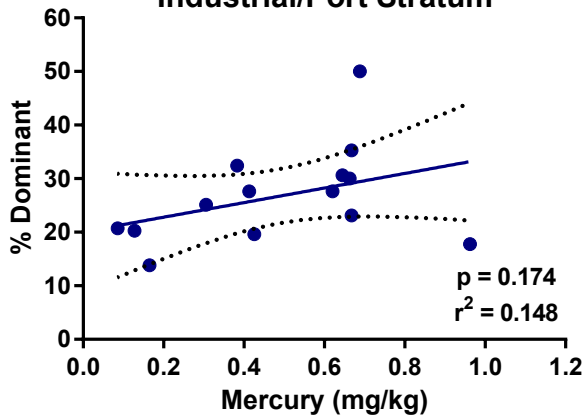
**Mercury vs Shannon Weiner Diversity Index
Industrial/Port Stratum**



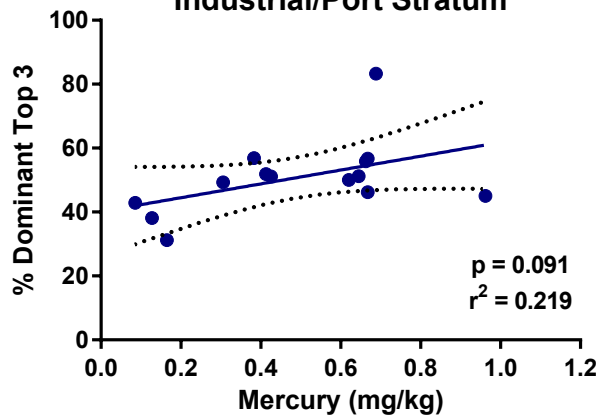
**Mercury vs % Sensitive Species
Industrial/Port Stratum**



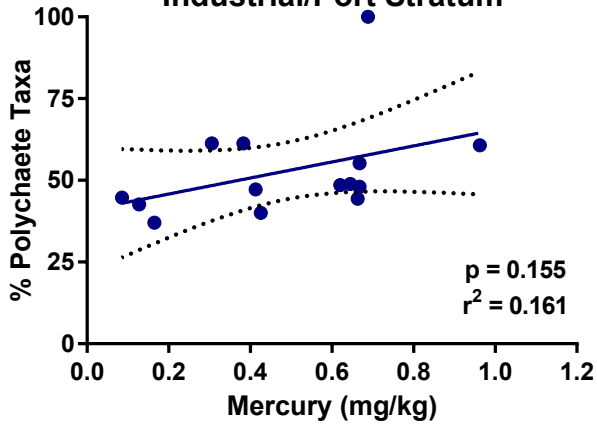
**Mercury vs % Dominant Species
Industrial/Port Stratum**



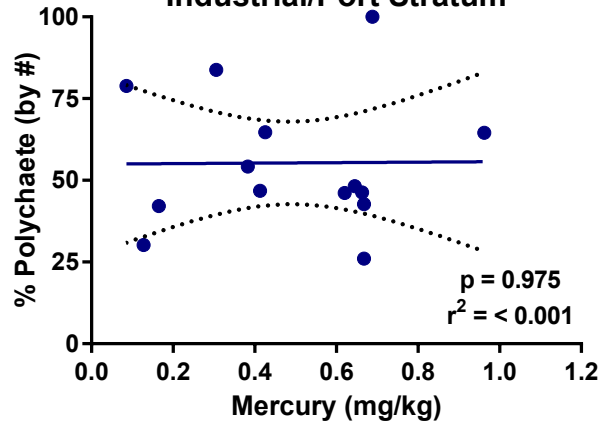
**Mercury vs % Dominant Species - Top 3
Industrial/Port Stratum**



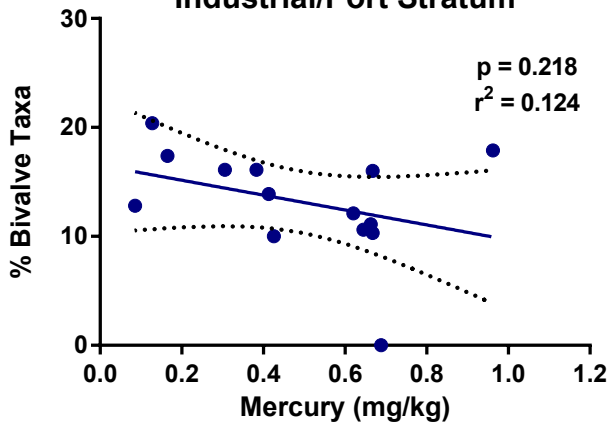
**Mercury vs % Polychaete Taxa
Industrial/Port Stratum**



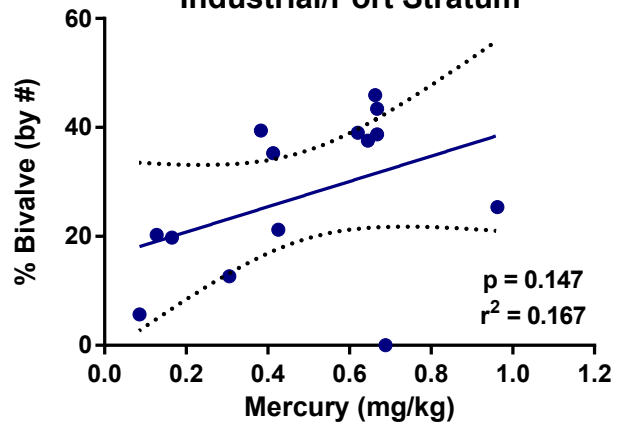
**Mercury vs % Polychaete Individuals
Industrial/Port Stratum**



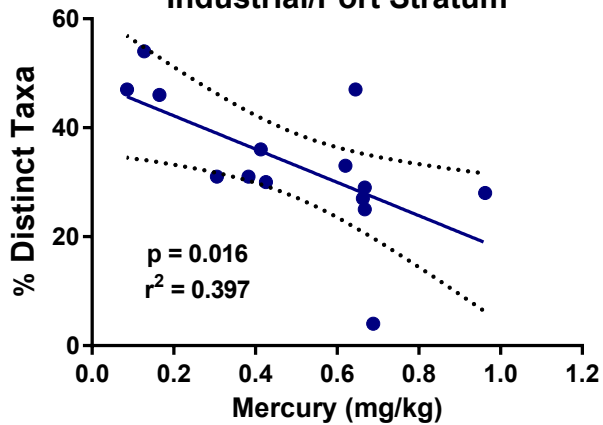
**Mercury vs % Bivalve Taxa
Industrial/Port Stratum**



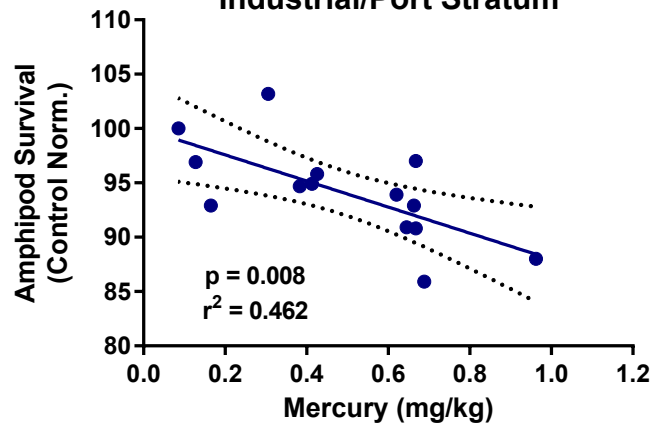
**Mercury vs % Bivalve Individuals
Industrial/Port Stratum**



**Mercury vs Distinct Taxa
Industrial/Port Stratum**

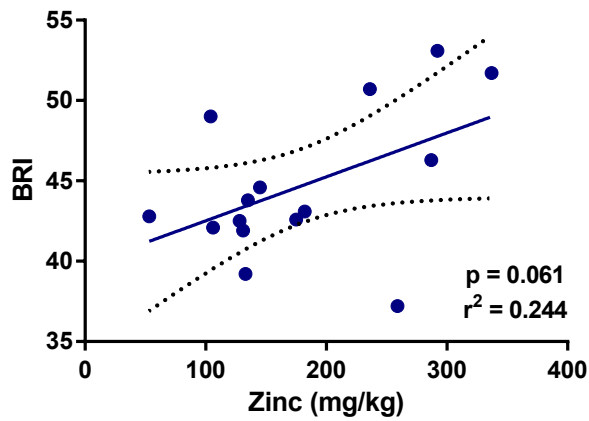


**Mercury vs Amphipod Survival
Industrial/Port Stratum**

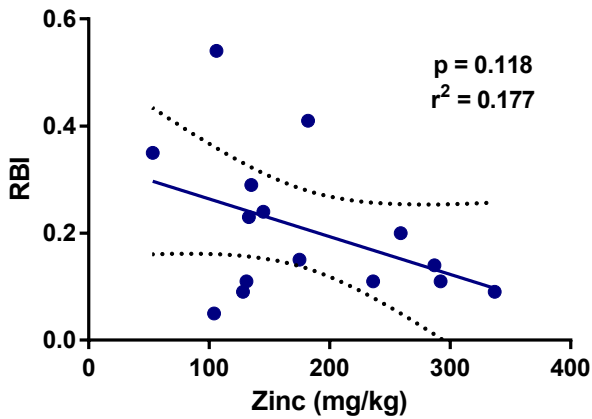


Zinc

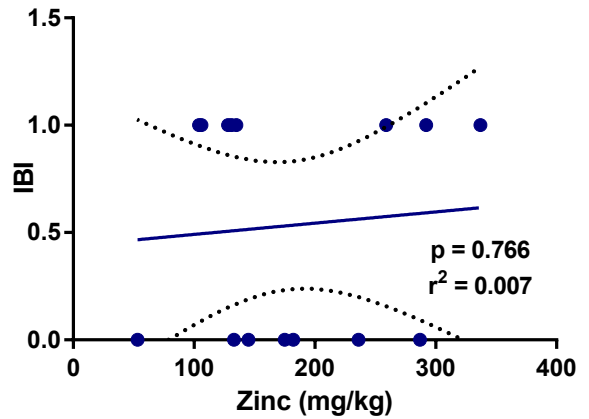
Zinc vs BRI
Freshwater Influence Stratum



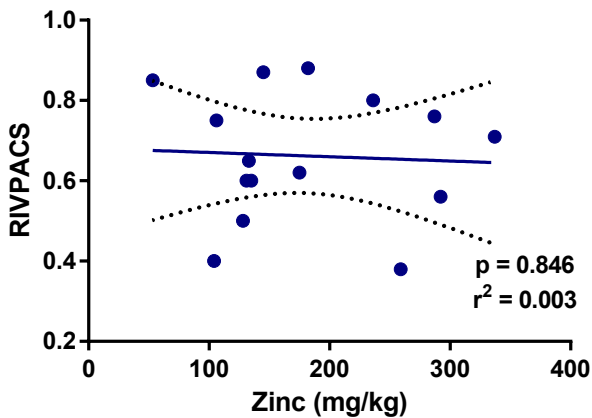
Zinc vs RBI
Freshwater Influence Stratum



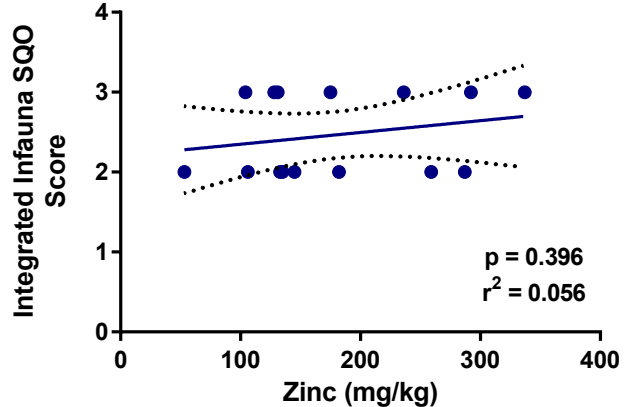
Zinc vs IBI
Freshwater Influence Stratum



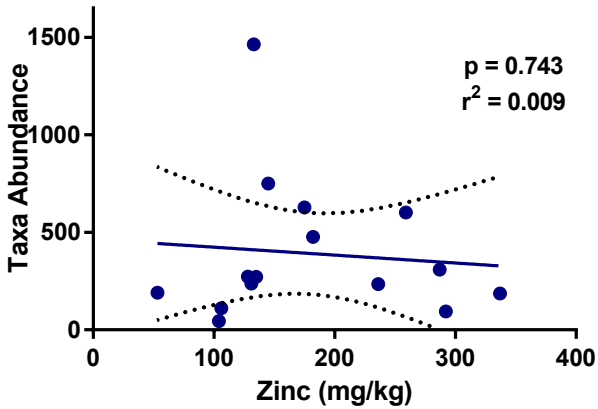
Zinc vs RIVPACS
Freshwater Influence Stratum



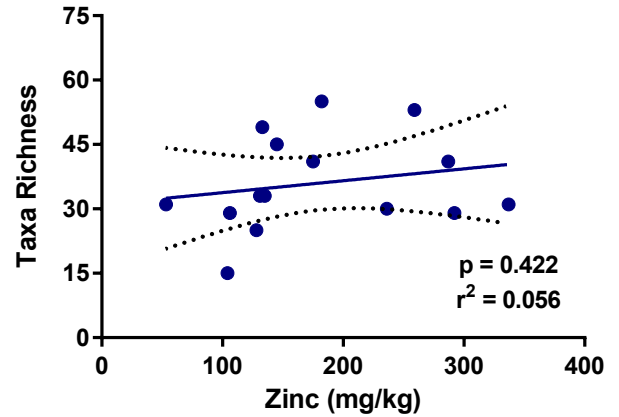
Zinc vs Integrated Benthic SQO Score
Freshwater Influence Stratum



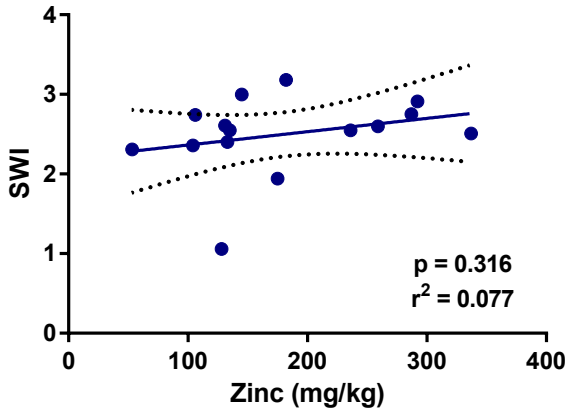
Zinc vs Taxa Abundance
Freshwater Influence Stratum



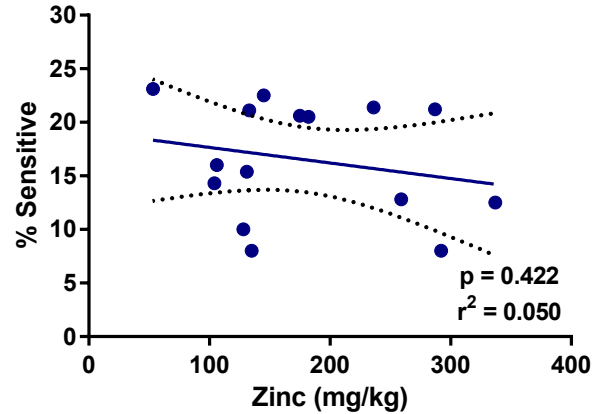
Zinc vs Taxa Richness
Freshwater Influence Stratum



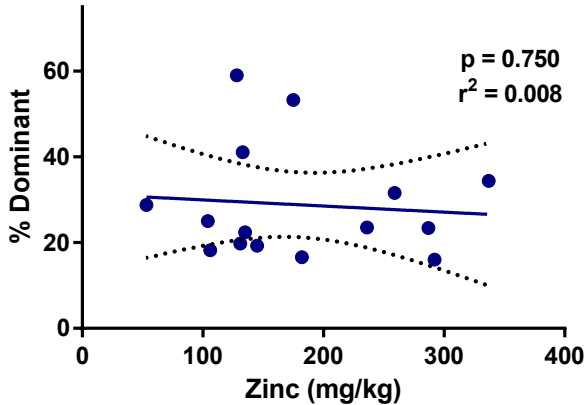
Zinc vs Shannon Weiner Diversity Index
Freshwater Influence Stratum



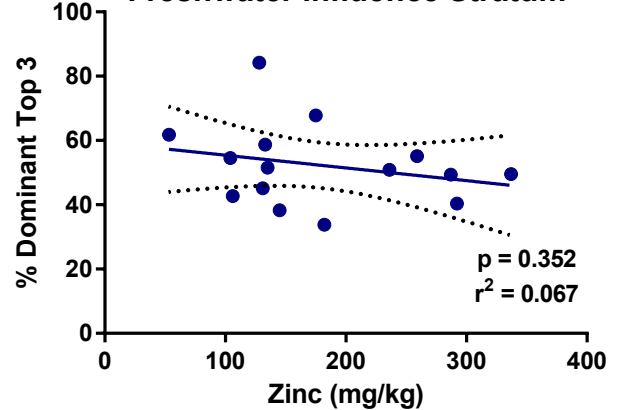
Zinc vs % Sensitive Species
Freshwater Influence Stratum



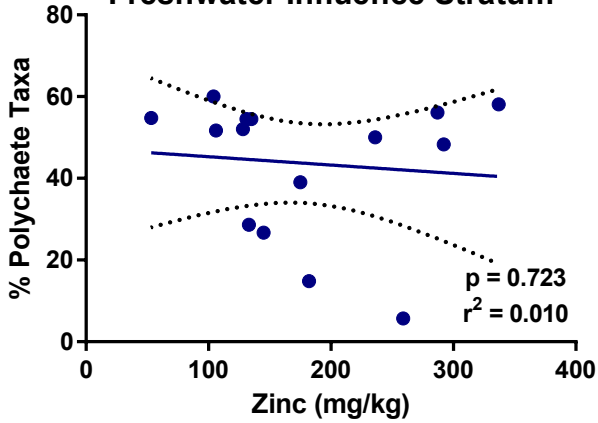
Zinc vs % Dominant Species
Freshwater Influence Stratum



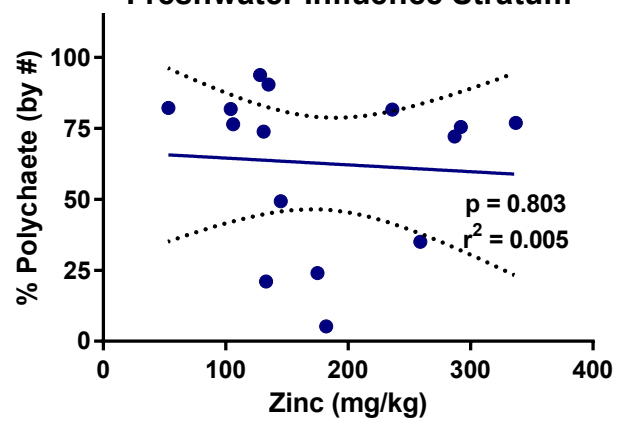
Zinc vs % Dominant Species - Top 3
Freshwater Influence Stratum



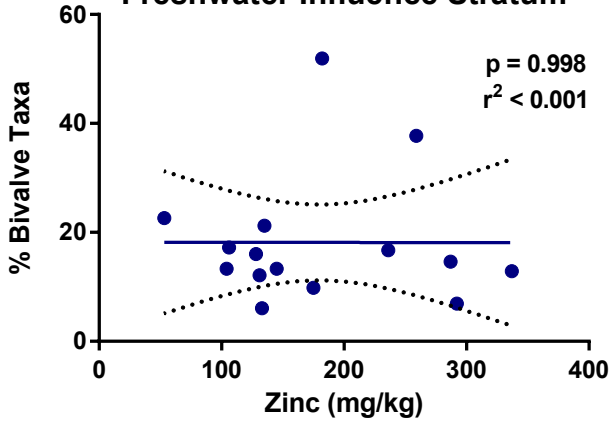
**Zinc vs % Polychaete Taxa
Freshwater Influence Stratum**



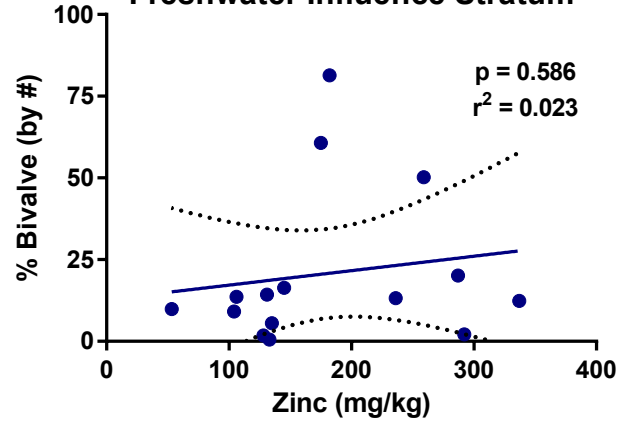
**Zinc vs % Polychaete Individuals
Freshwater Influence Stratum**



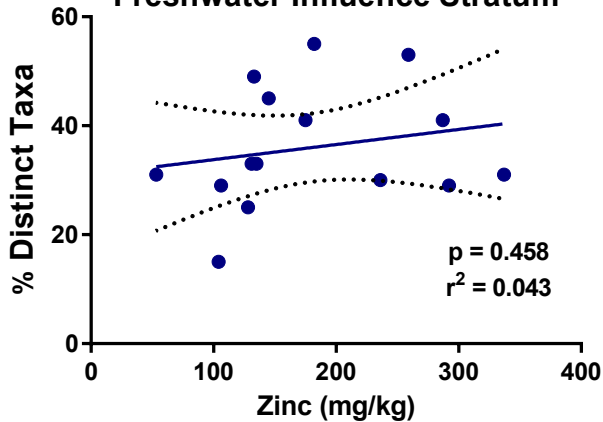
**Zinc vs % Bivalve Taxa
Freshwater Influence Stratum**



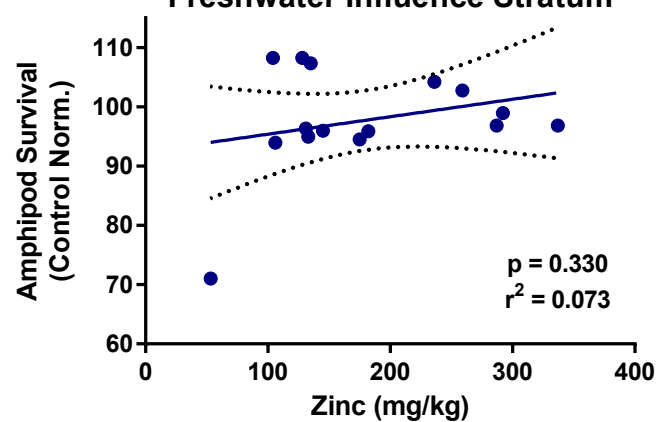
**Zinc vs % Bivalve Individuals
Freshwater Influence Stratum**



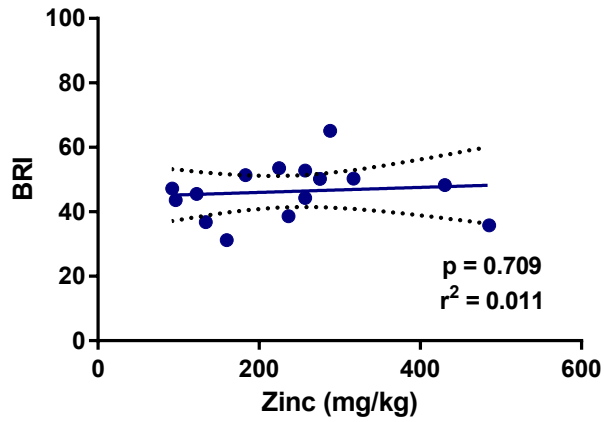
**Zinc vs Distinct Taxa
Freshwater Influence Stratum**



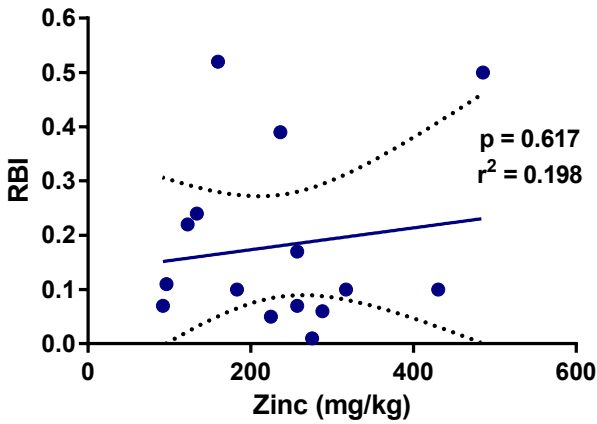
**Zinc vs Amphipod Survival
Freshwater Influence Stratum**



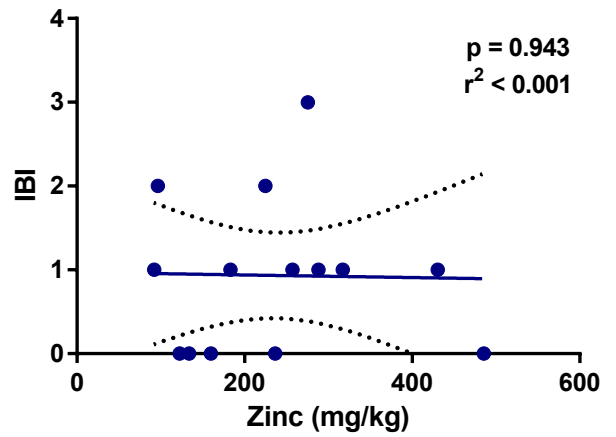
**Zinc vs BRI
Marinas**



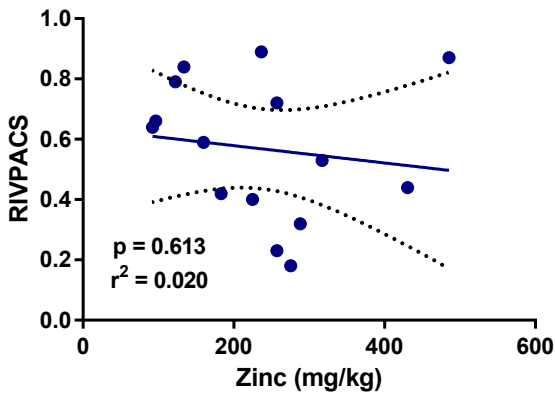
**Zinc vs RBI
Marinas**



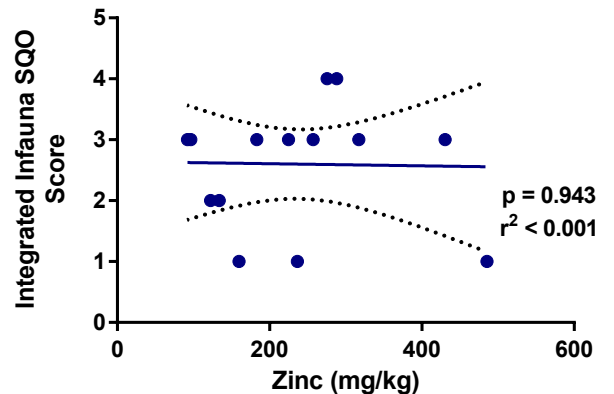
**Zinc vs IBI
Marinas**



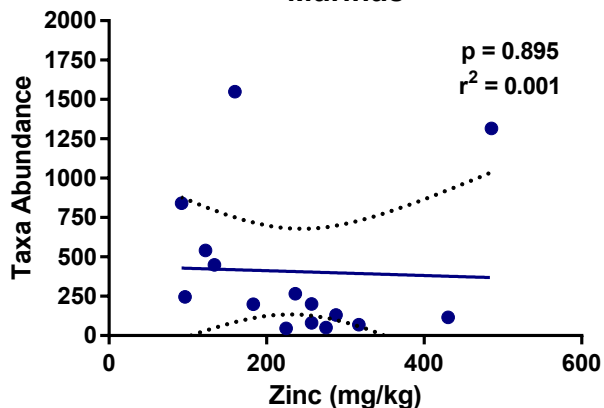
**Zinc vs RIVPACS
Marinas**



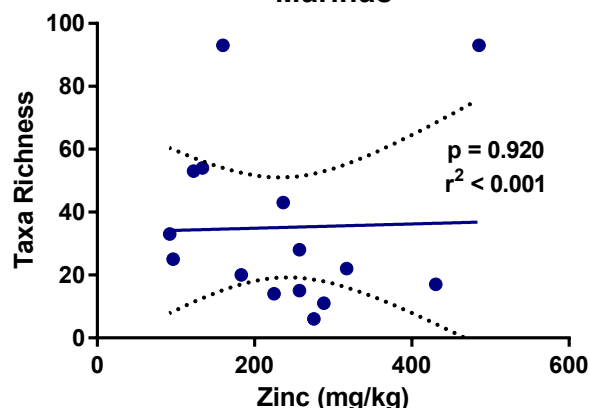
**Zinc vs Integrated Benthic SQO Score
Marinas**



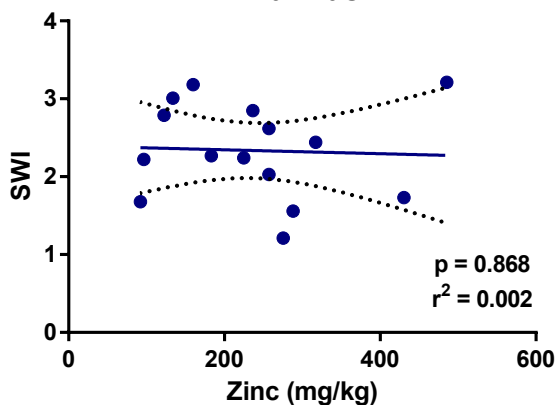
**Zinc vs Taxa Abundance
Marinas**



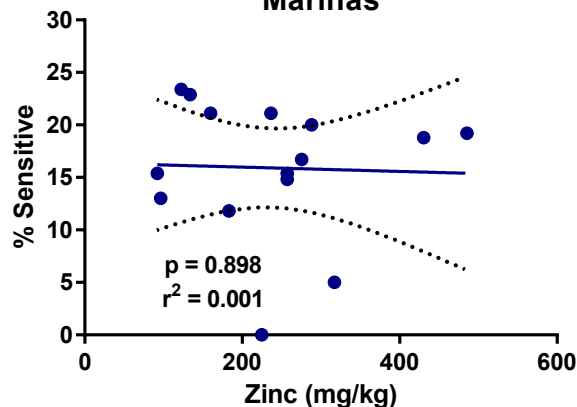
**Zinc vs Taxa Richness
Marinas**



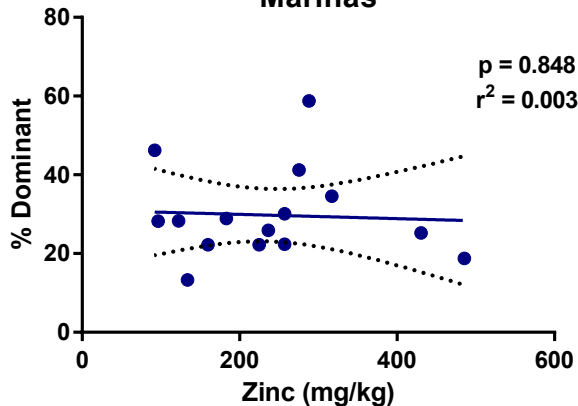
**Zinc vs Shannon Weiner Diversity Index
Marinas**



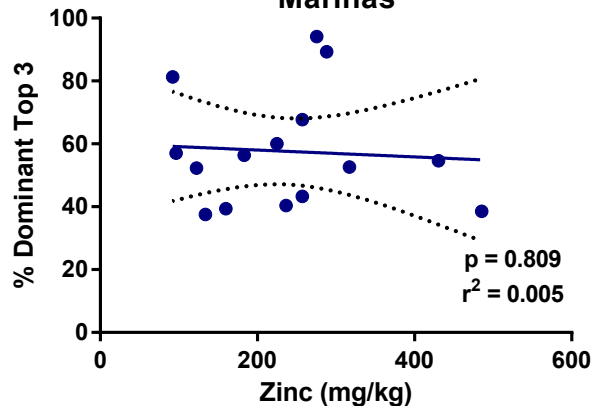
**Zinc vs % Sensitive Species
Marinas**



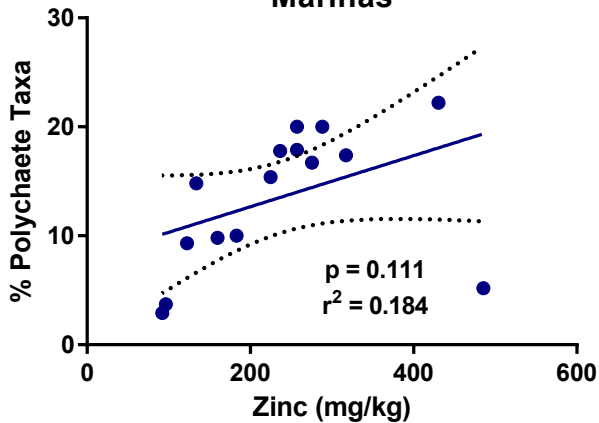
**Zinc vs % Dominant Species
Marinas**



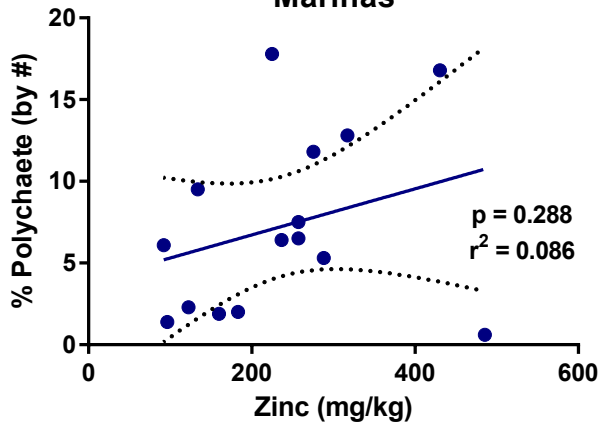
**Zinc vs % Dominant Species - Top 3
Marinas**



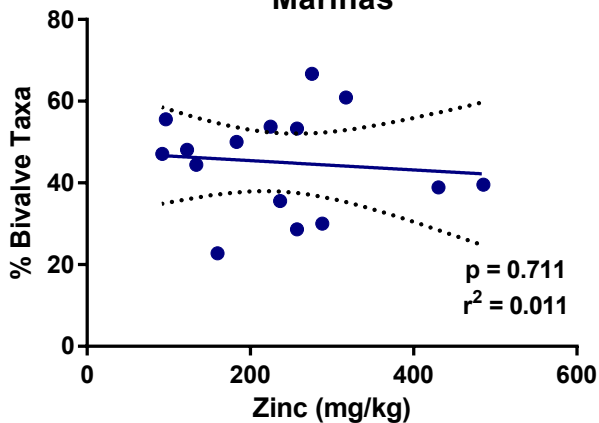
**Zinc vs % Polychaete Taxa
Marinas**



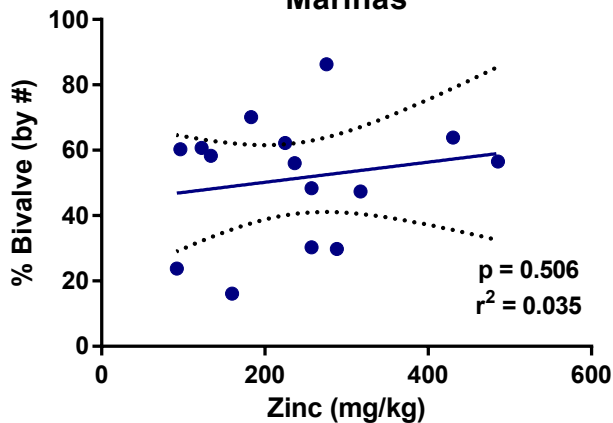
**Zinc vs % Polychaete Individuals
Marinas**



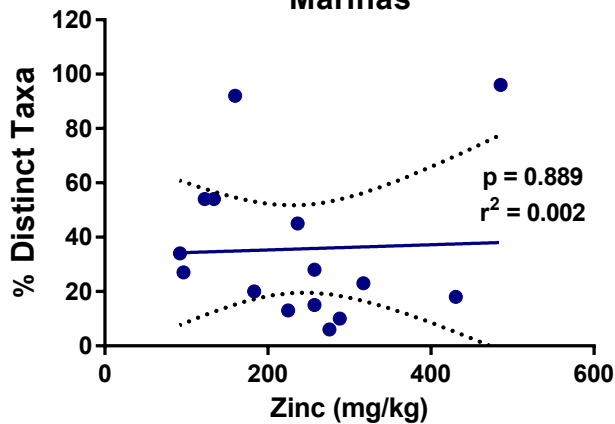
**Zinc vs % Bivalve Taxa
Marinas**



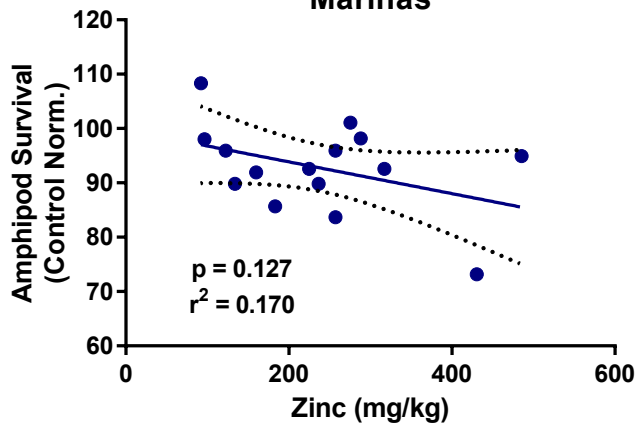
**Zinc vs % Bivalve Individuals
Marinas**

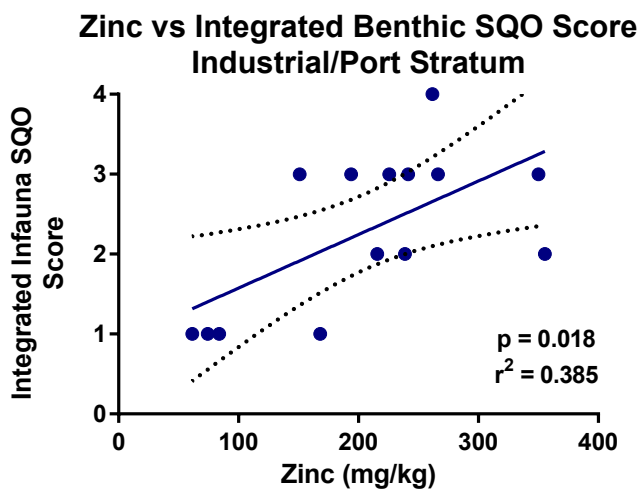
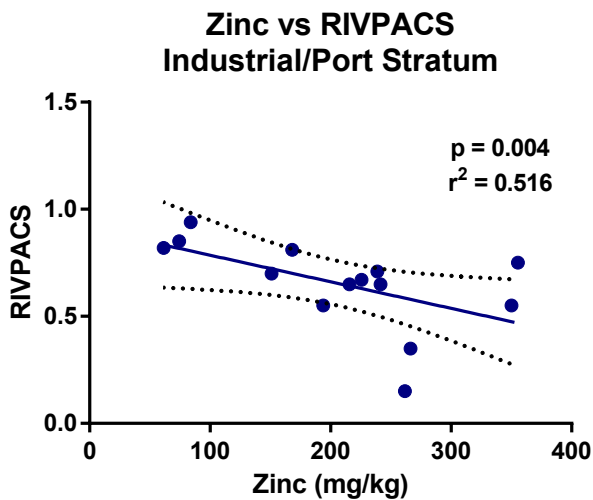
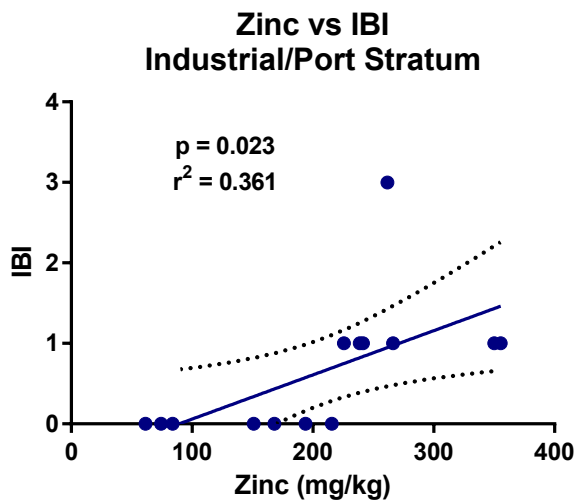
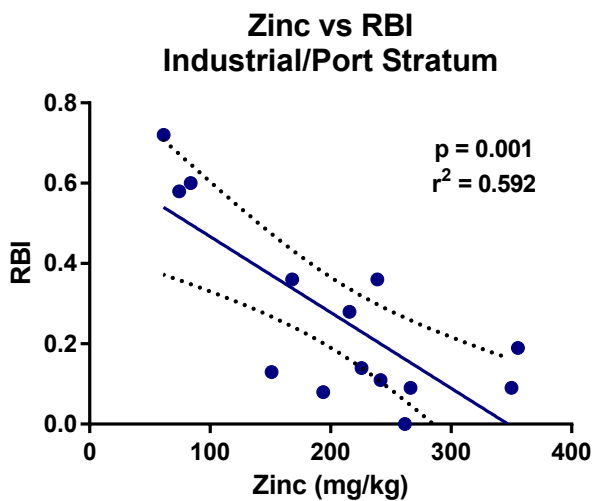
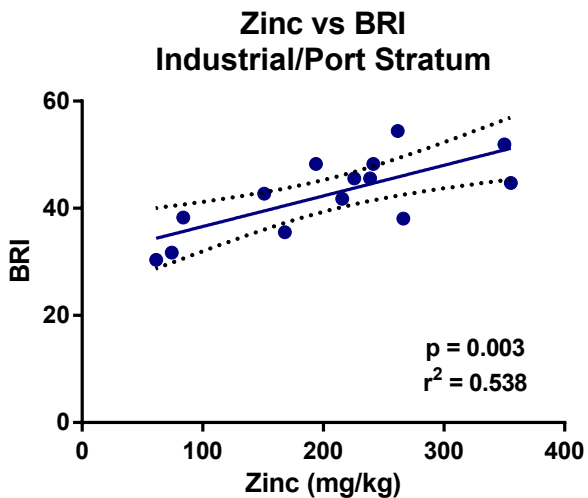


**Zinc vs Distinct Taxa
Marinas**

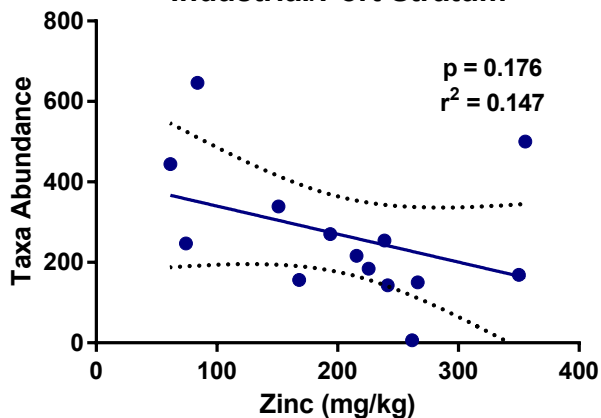


**Zinc vs Amphipod Survival
Marinas**

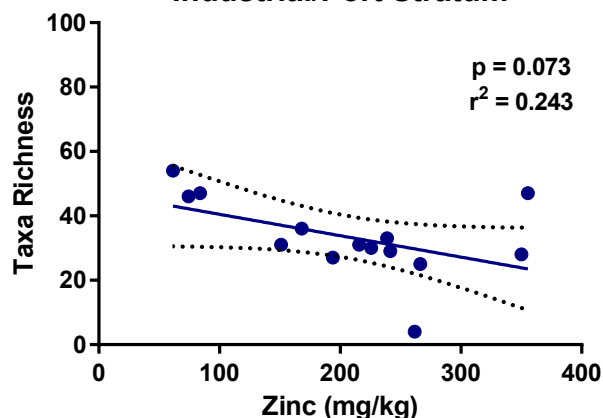




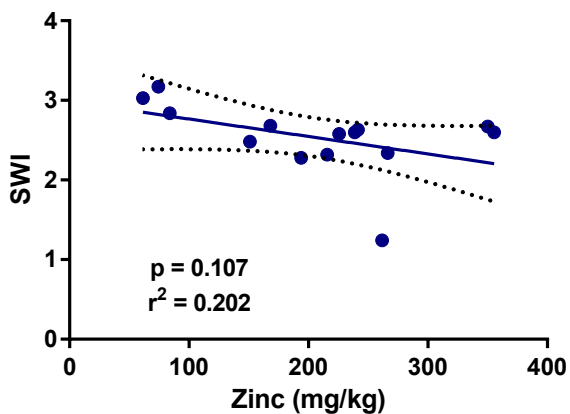
**Zinc vs Taxa Abundance
Industrial/Port Stratum**



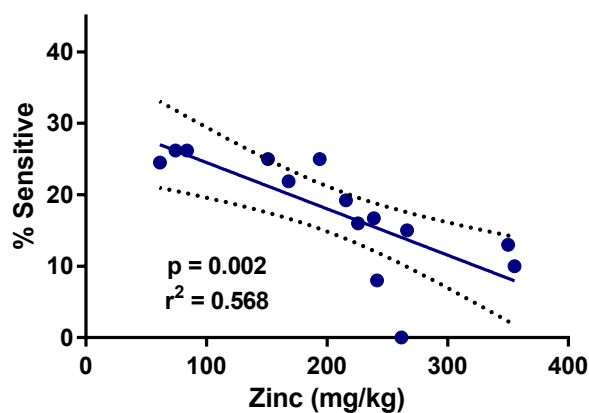
**Zinc vs Taxa Richness
Industrial/Port Stratum**



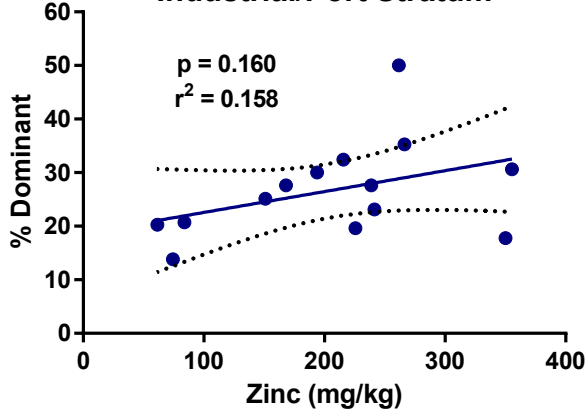
**Zinc vs Shannon Weiner Diversity Index
Industrial/Port Stratum**



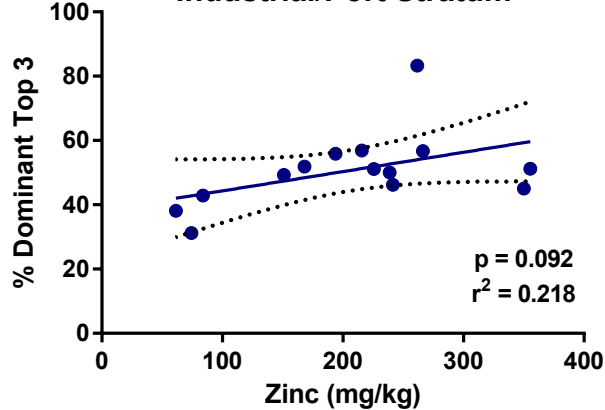
**Zinc vs % Sensitive Species
Industrial/Port Stratum**



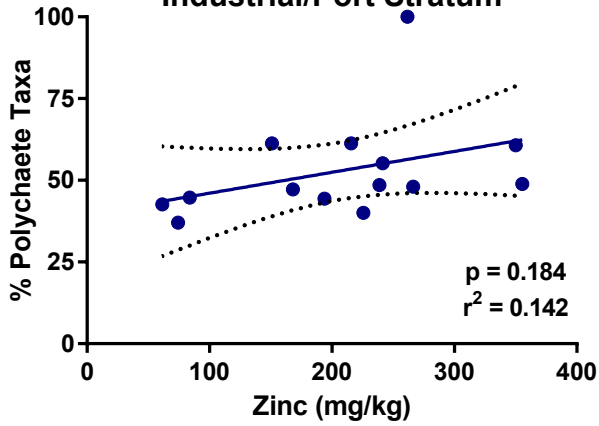
**Zinc vs % Dominant Species
Industrial/Port Stratum**



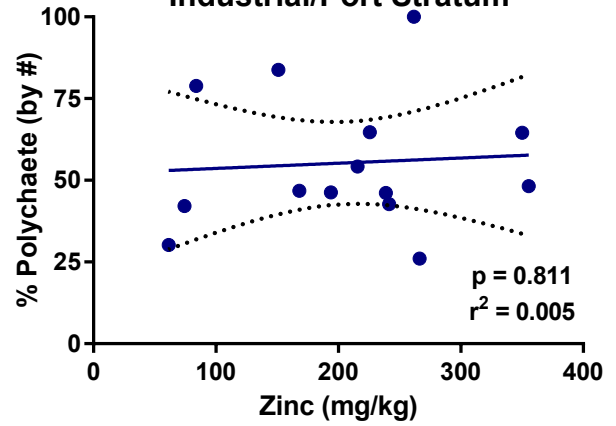
**Zinc vs % Dominant Species - Top 3
Industrial/Port Stratum**



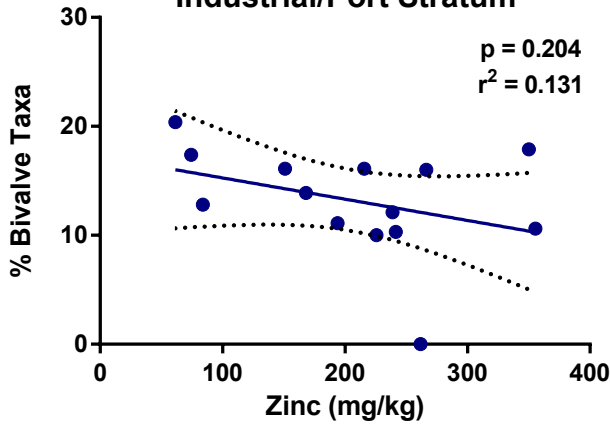
**Zinc vs % Polychaete Taxa
Industrial/Port Stratum**



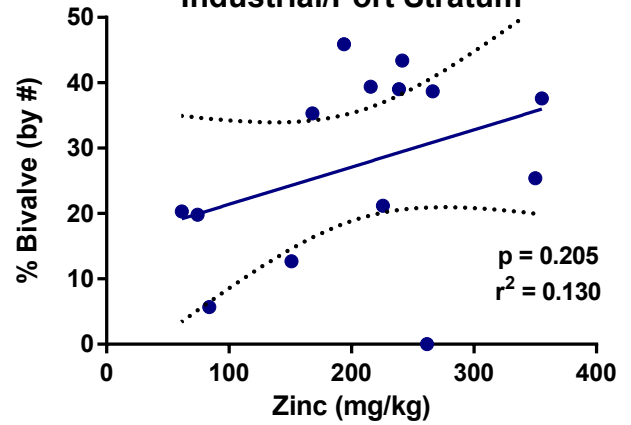
**Zinc vs % Polychaete Individuals
Industrial/Port Stratum**



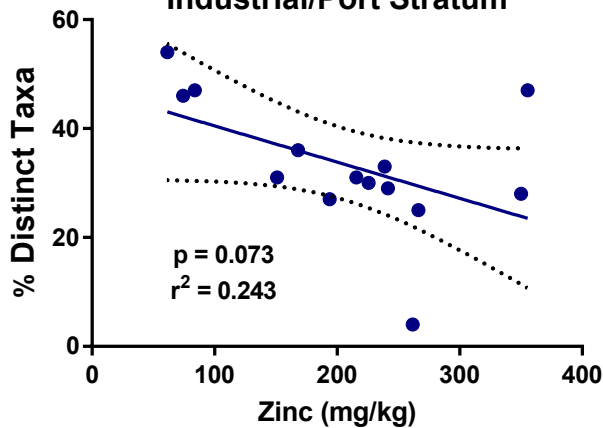
**Zinc vs % Bivalve Taxa
Industrial/Port Stratum**



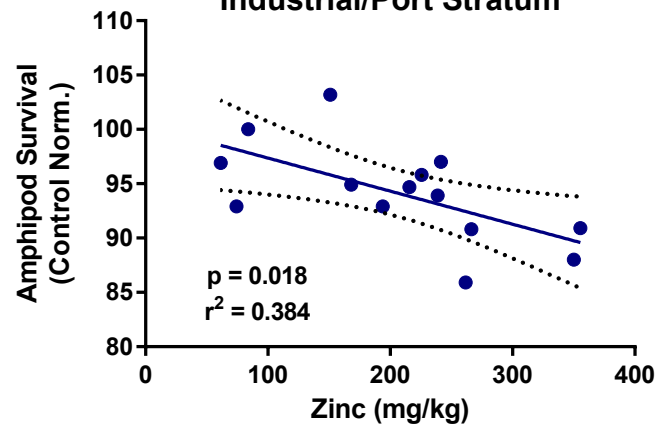
**Zinc vs % Bivalve Individuals
Industrial/Port Stratum**



**Zinc vs Distinct Taxa
Industrial/Port Stratum**

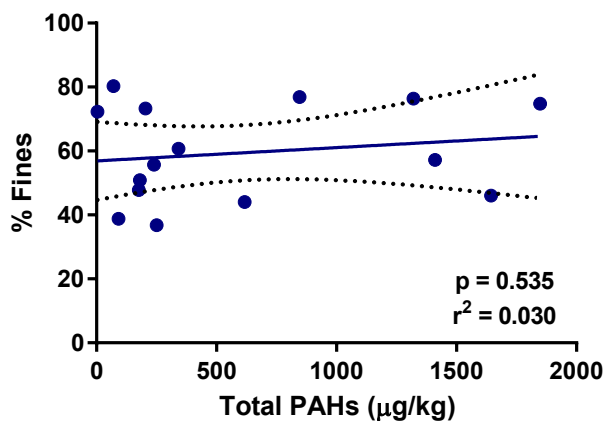


**Zinc vs Amphipod Survival
Industrial/Port Stratum**

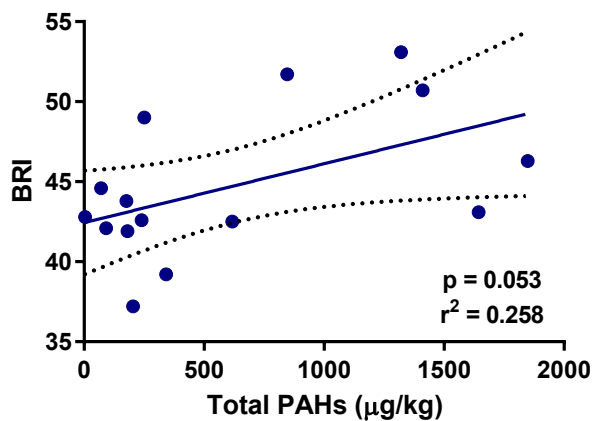


Total PAHs

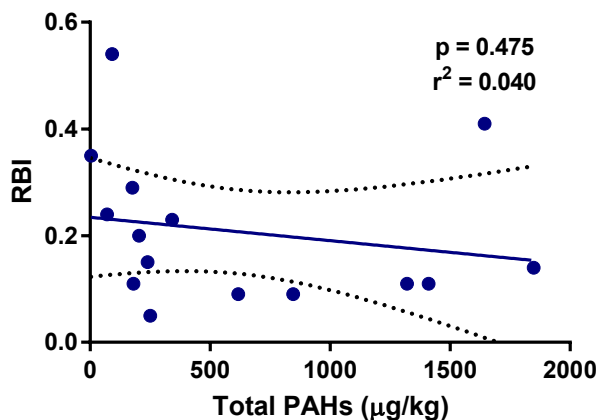
**Total PAHs vs Fines
Freshwater Stratum**



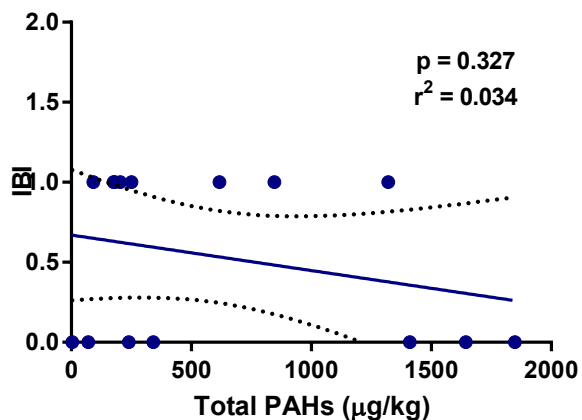
**Total PAHs vs BRI
Freshwater Stratum**



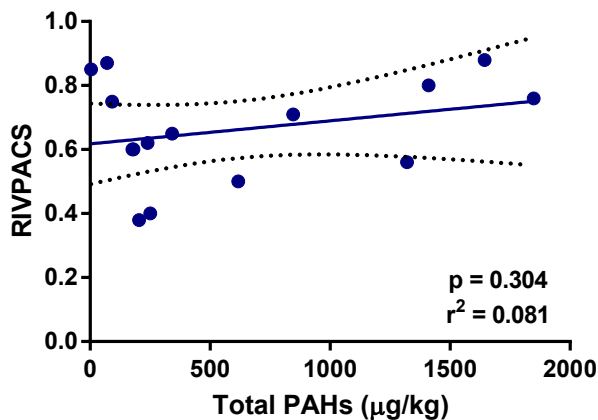
**Total PAHs vs RBI
Freshwater Stratum**



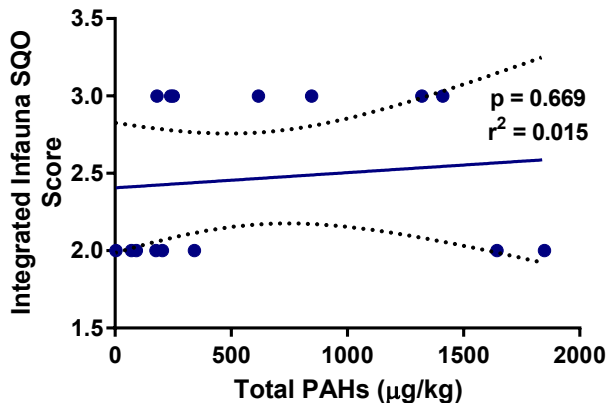
**Total PAHs vs IBI
Freshwater Stratum**



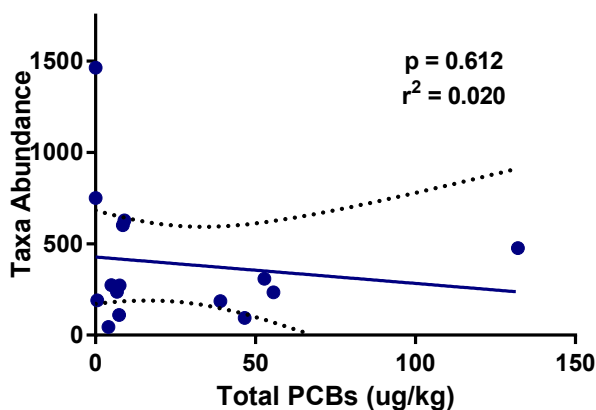
**Total PAHs vs RIVPACS
Freshwater Stratum**



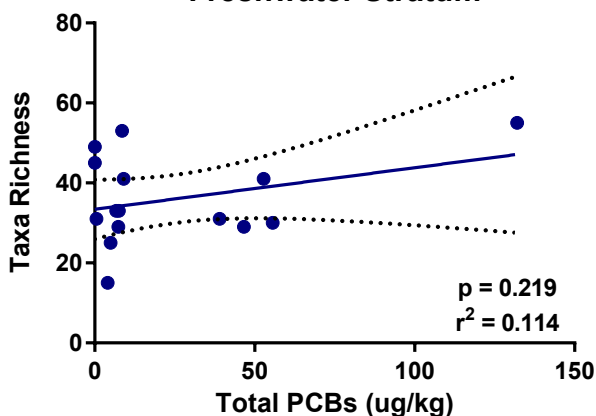
**Total PAHs vs Integrated Benthic SQO Score
Freshwater Stratum**



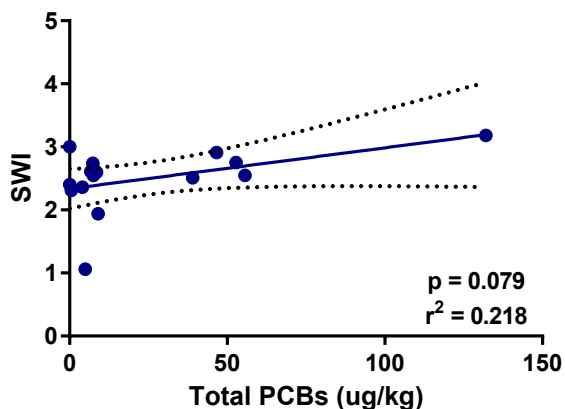
**Total PCBs vs Taxa Abundance
Freshwater Stratum**



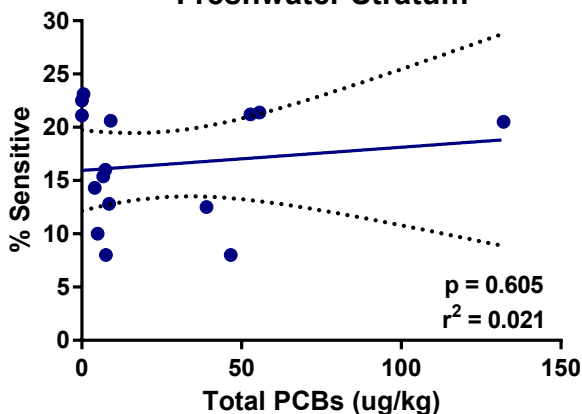
**Total PCBs vs Taxa Richness
Freshwater Stratum**



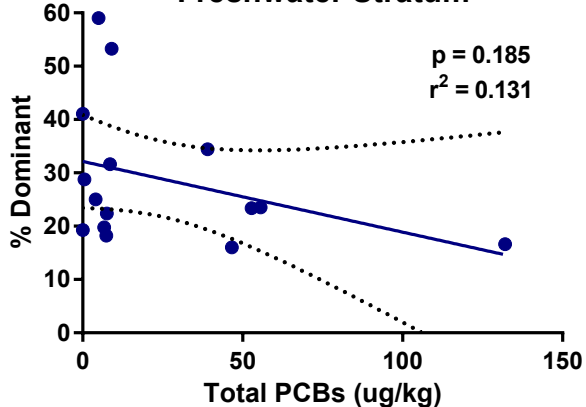
**Total PCBs vs Shannon Weiner Diversity Index
Freshwater Stratum**



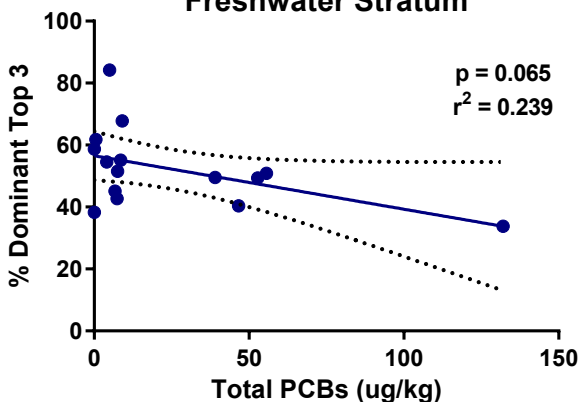
**Total PCBs vs % Sensitive Species
Freshwater Stratum**

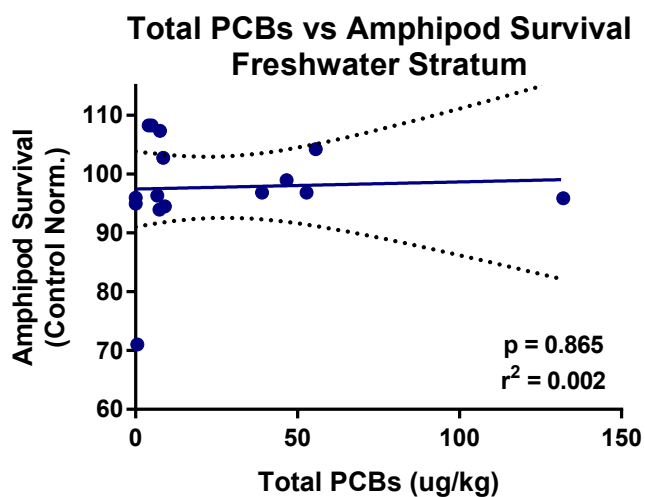
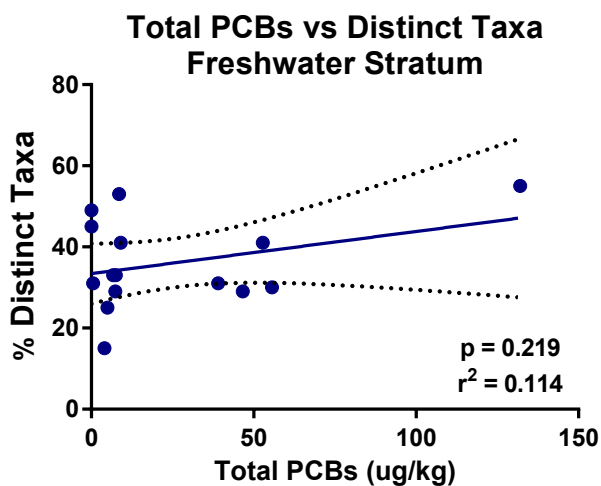
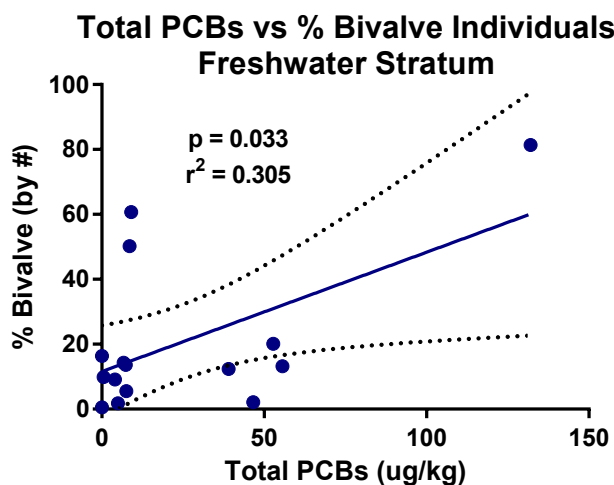
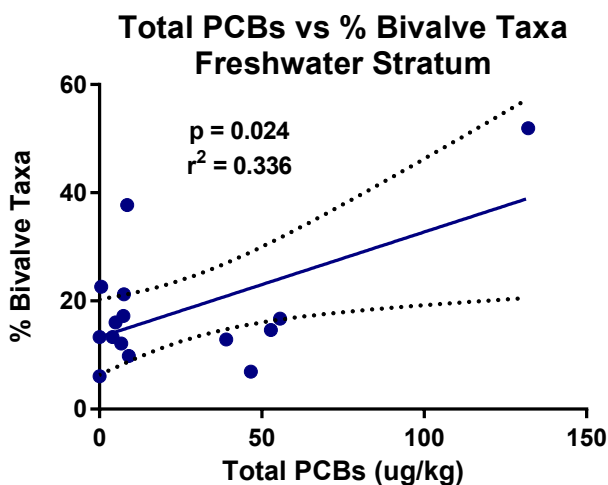
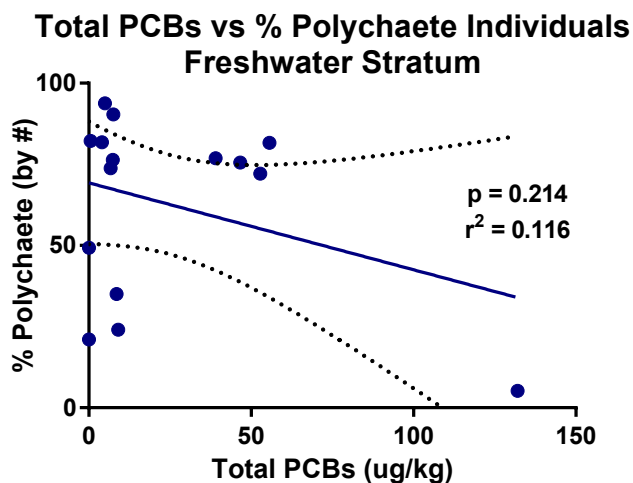
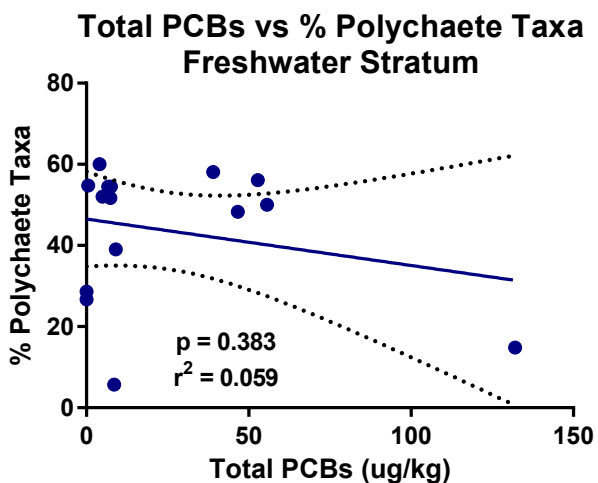


**Total PCBs vs % Dominant Species
Freshwater Stratum**

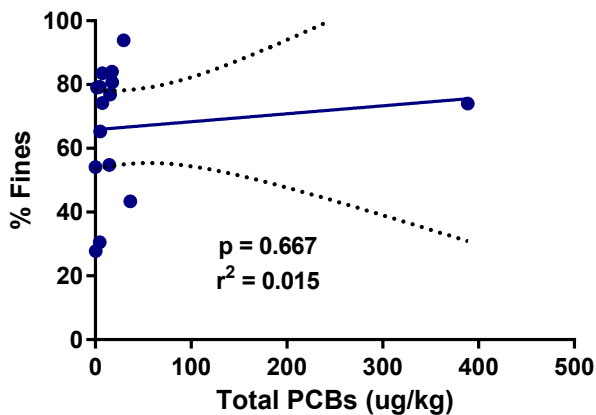


**Total PCBs vs % Dominant Species - Top 3
Freshwater Stratum**

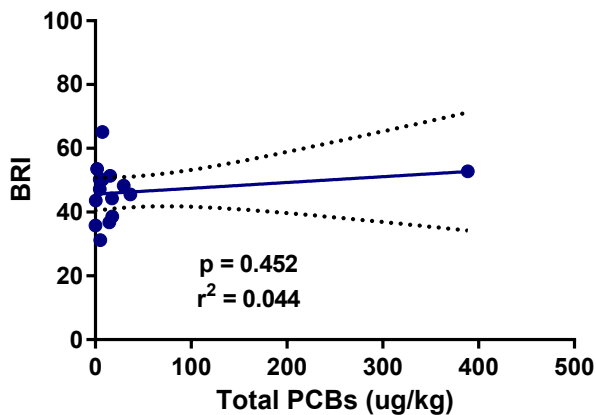




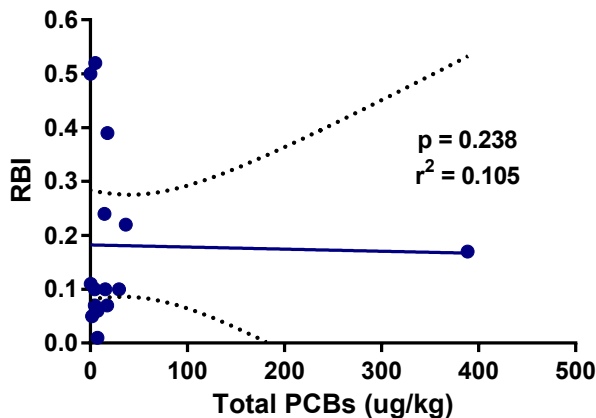
**Total PCBs vs Fines
Marinas**



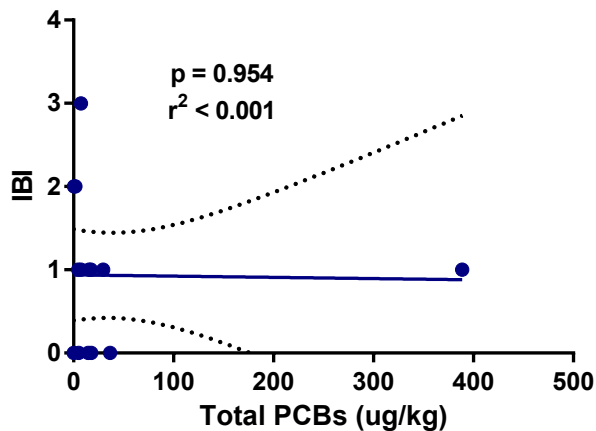
**Total PCBs vs BRI
Marinas**



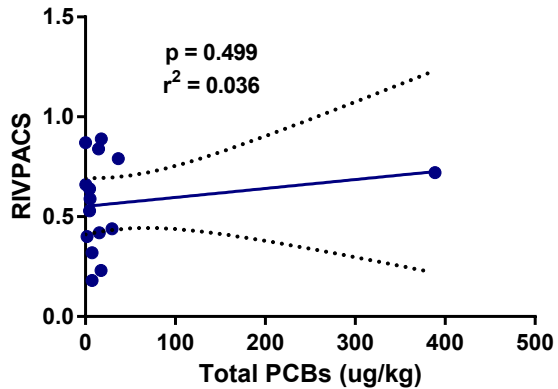
**Total PCBs vs RBI
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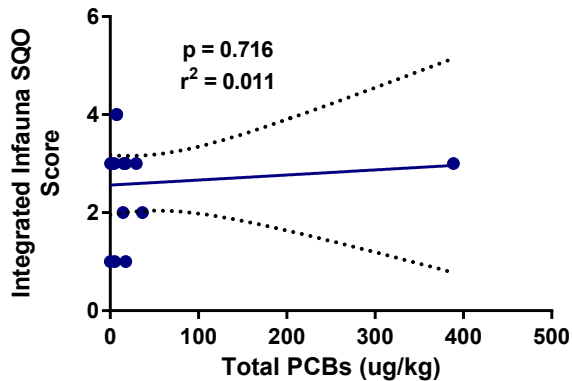
**Total PCBs vs IBI
Marinas**



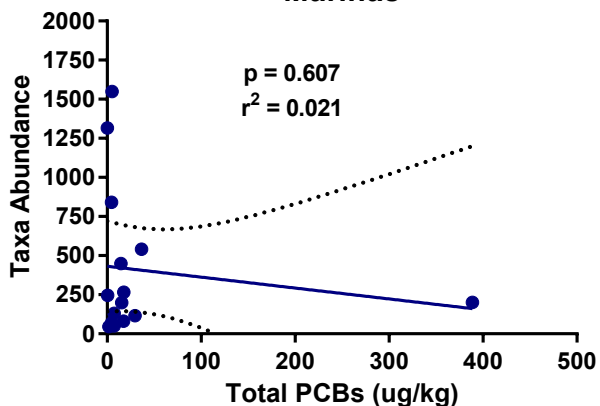
**Total PCBs vs RIVPACS
Marinas**



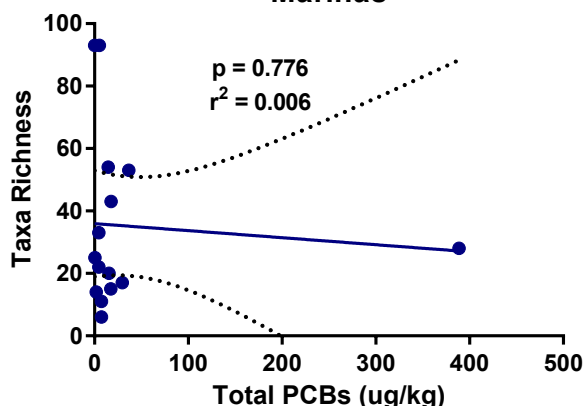
**Total PCBs vs Integrated Benthic SQO Score
Marinas**



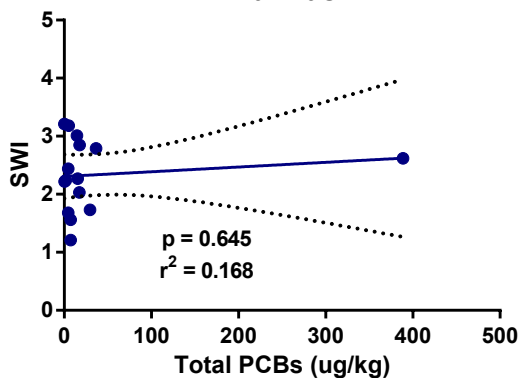
**Total PCBs vs Taxa Abundance
Marinas**



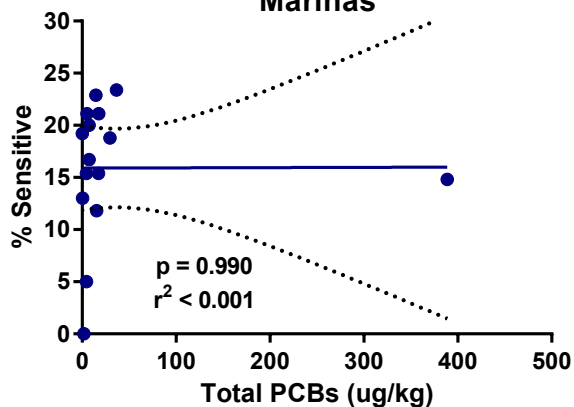
**Total PCBs vs Taxa Richness
Marinas**



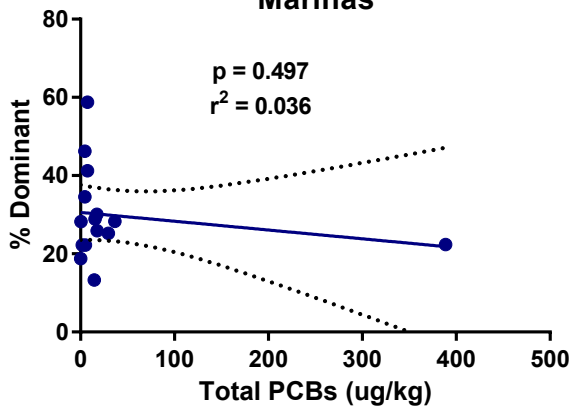
**Total PCBs vs Shannon Weiner Diversity Index
Marinas**



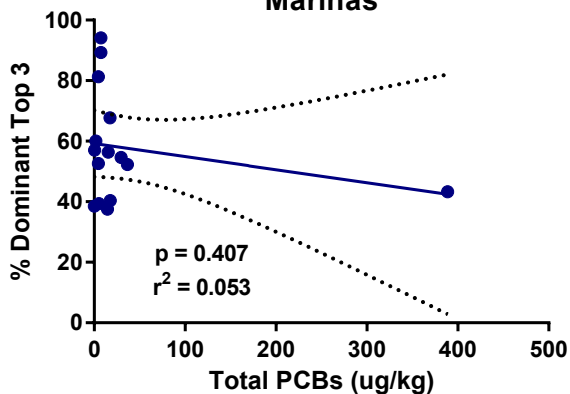
**Total PCBs vs % Sensitive Species
Marinas**

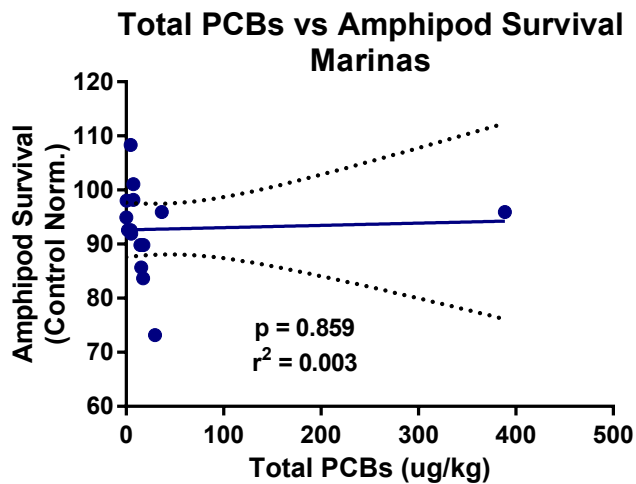
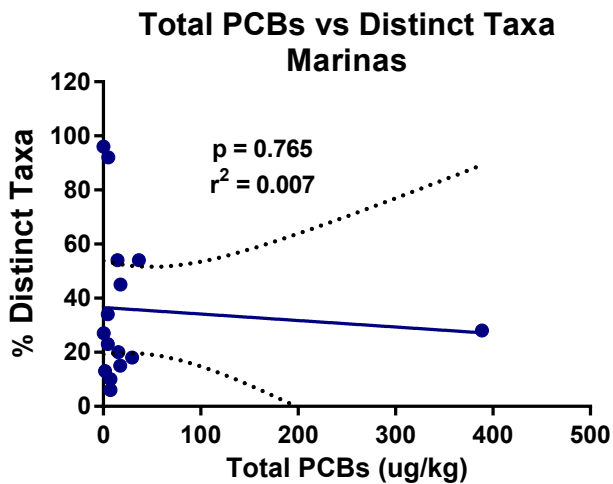
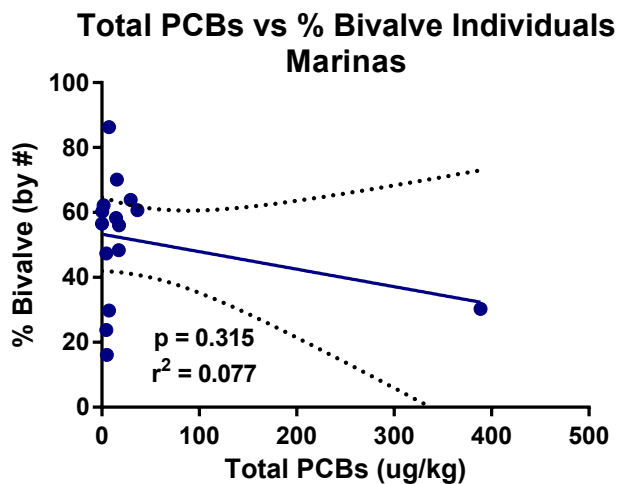
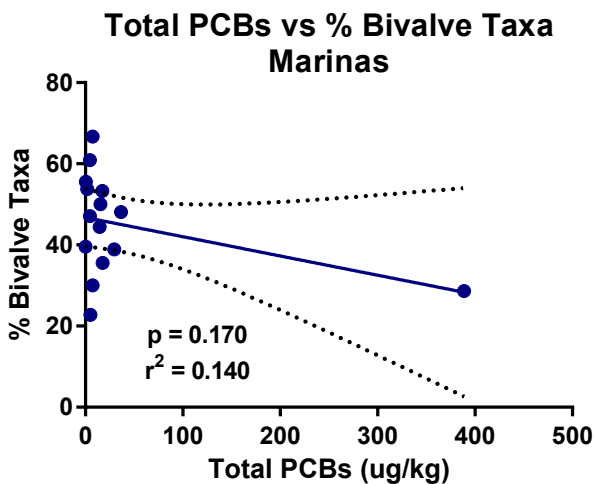
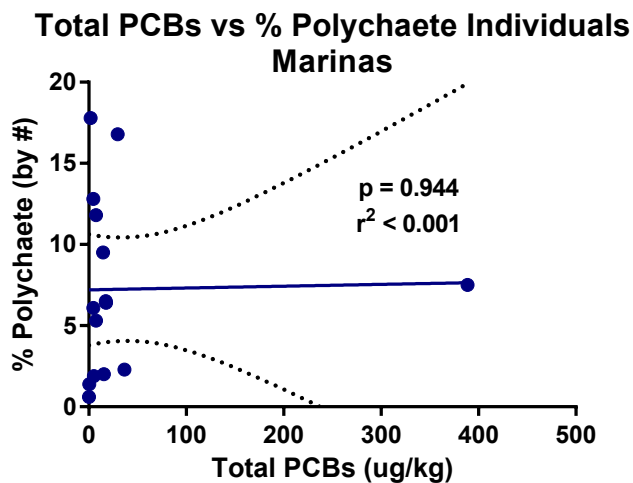
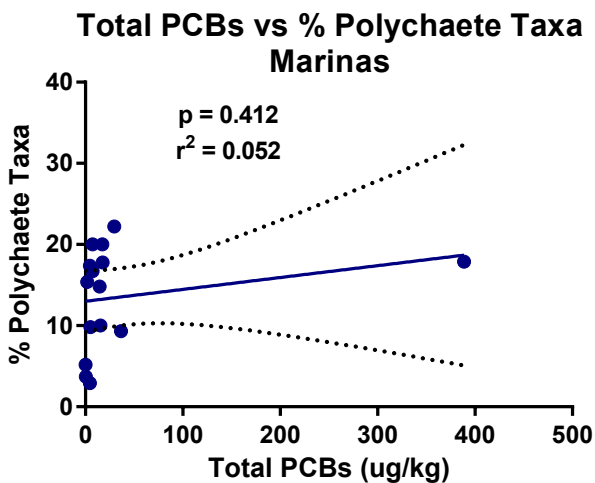


**Total PCBs vs % Dominant Species
Marinas**

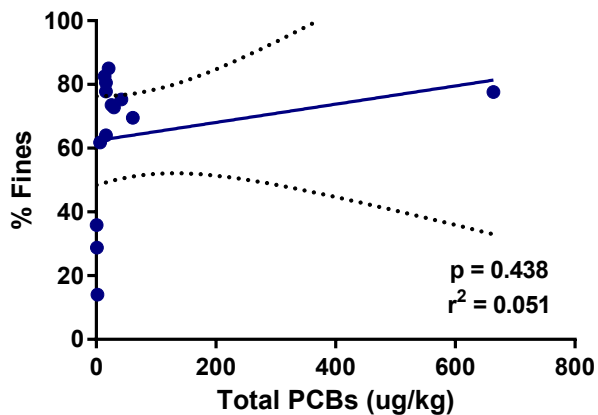


**Total PCBs vs % Dominant Species - Top 3
Marinas**

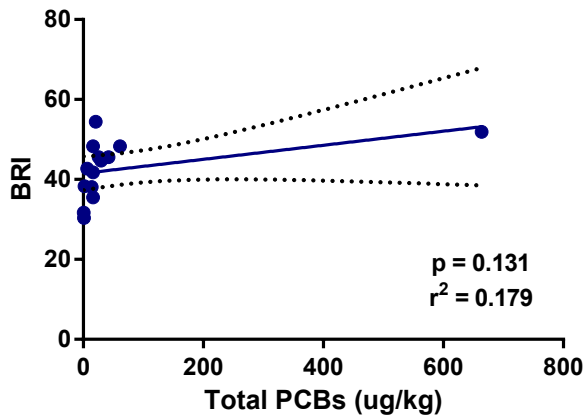




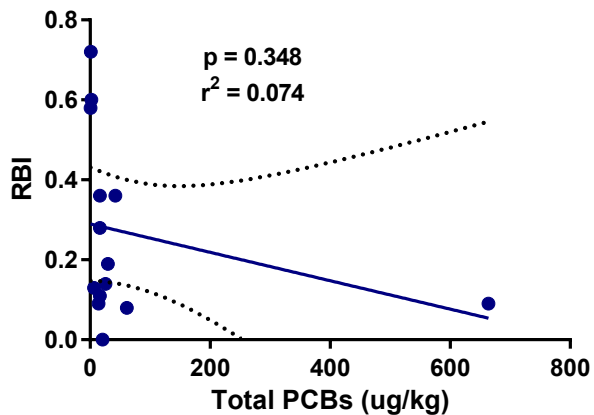
**Total PCBs vs Fines
Industrial/Port Stratum**



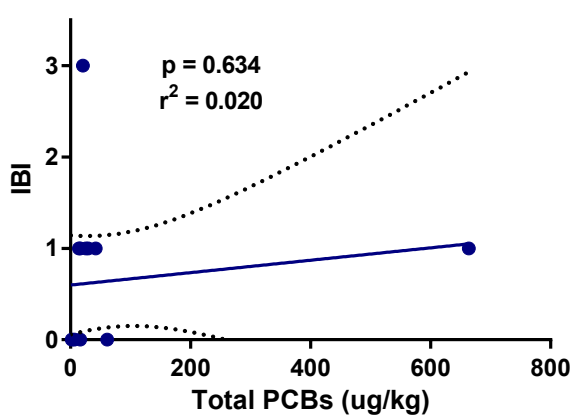
**Total PCBs vs BRI
Industrial/Port Stratum**



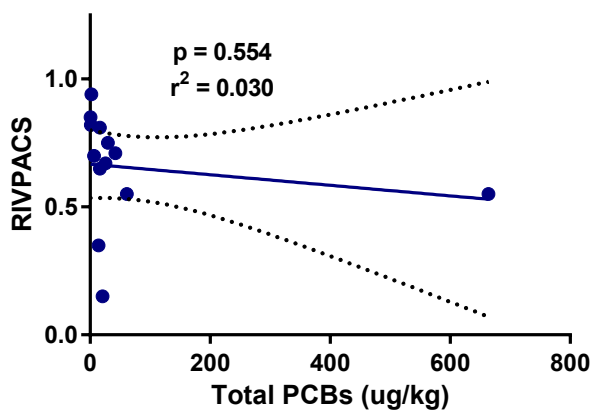
**Total PCBs vs RBI
Industrial/Port Stratum**



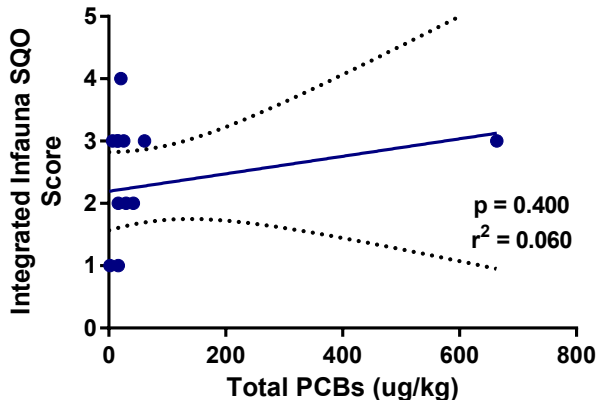
**Total PCBs vs IBI
Industrial/Port Stratum**



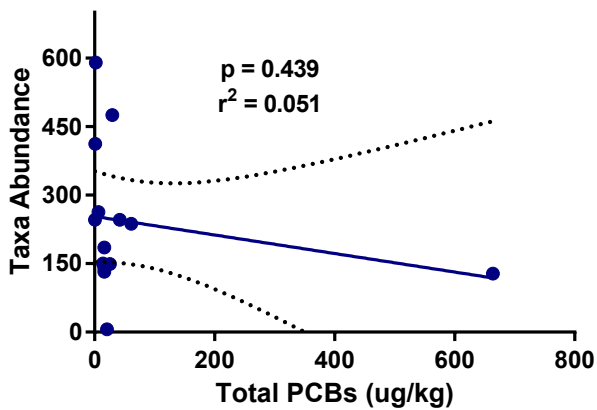
**Total PCBs vs RIVPACS
Industrial/Port Stratum**



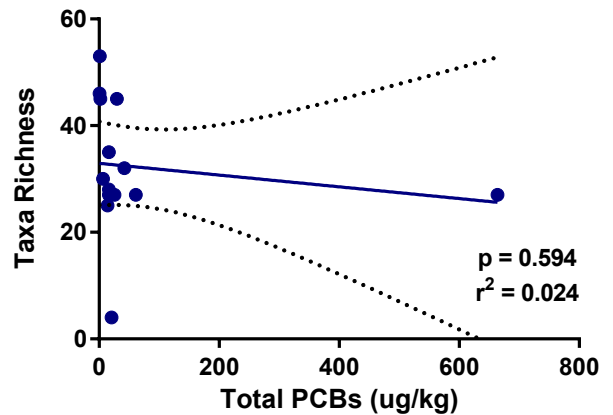
**Total PCBs vs Integrated Benthic SQO Score
Industrial/Port Stratum**



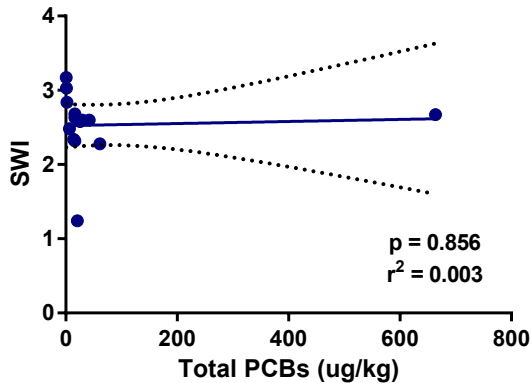
**Total PCBs vs Taxa Abundance
Industrial/Port Stratum**



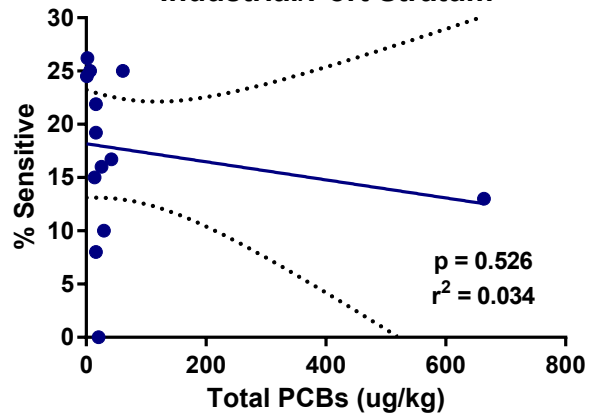
**Total PCBs vs Taxa Richness
Industrial/Port Stratum**



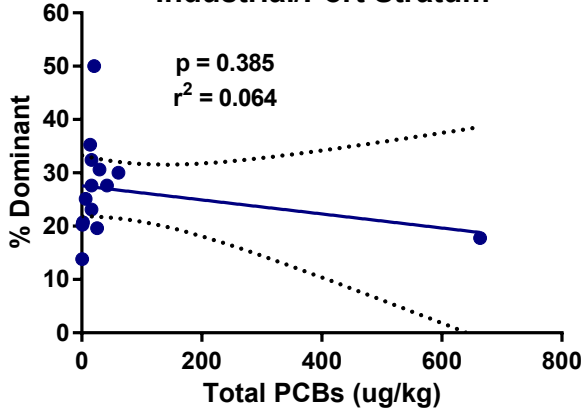
**Total PCBs vs Shannon Weiner Diversity Index
Industrial/Port Stratum**



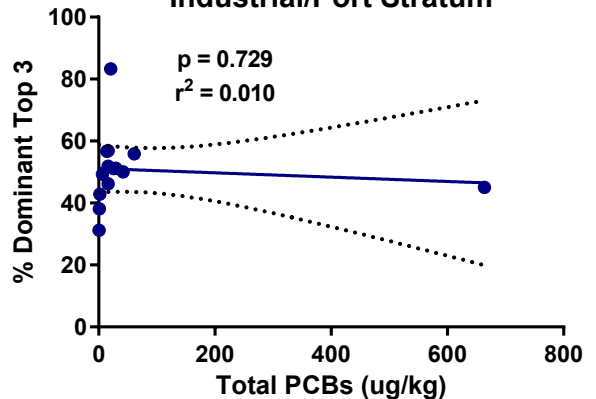
**Total PCBs vs % Sensitive Species
Industrial/Port Stratum**

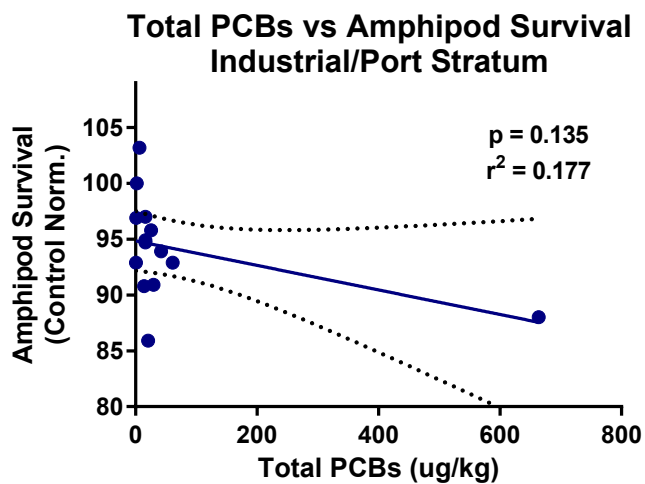
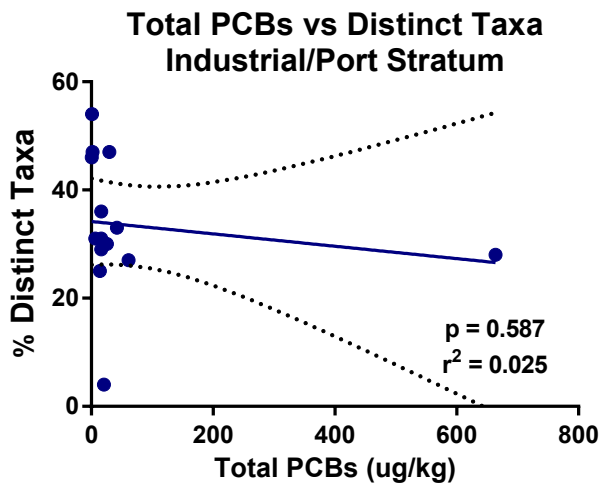
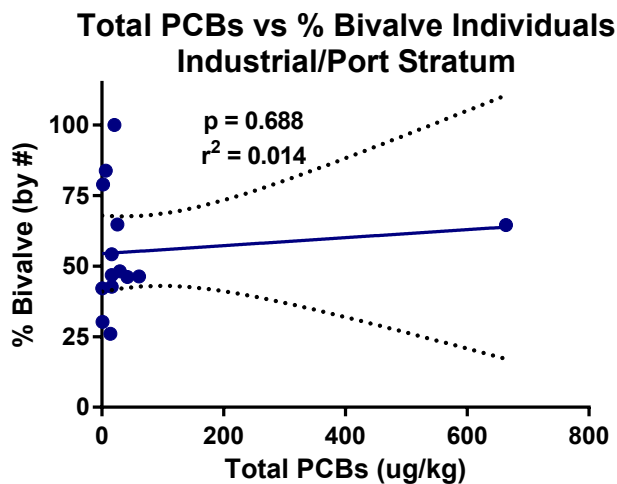
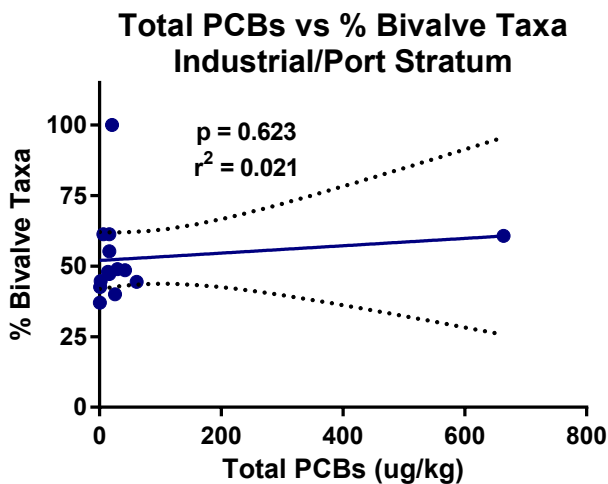
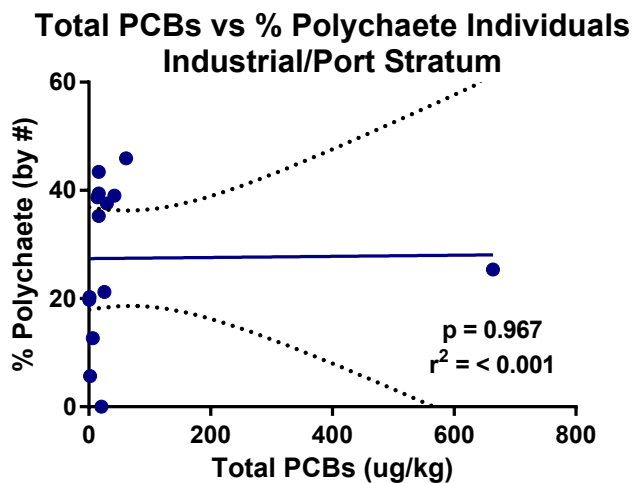
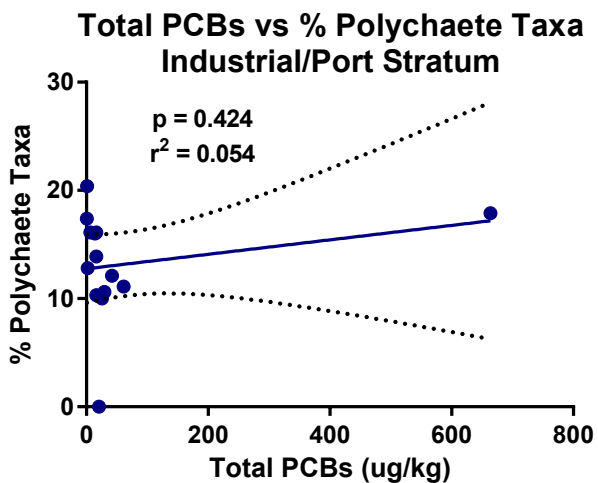


**Total PCBs vs % Dominant Species
Industrial/Port Stratum**



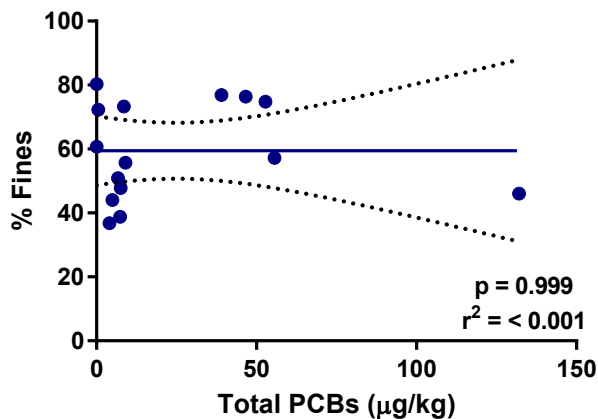
**Total PCBs vs % Dominant Species - Top 3
Industrial/Port Stratum**



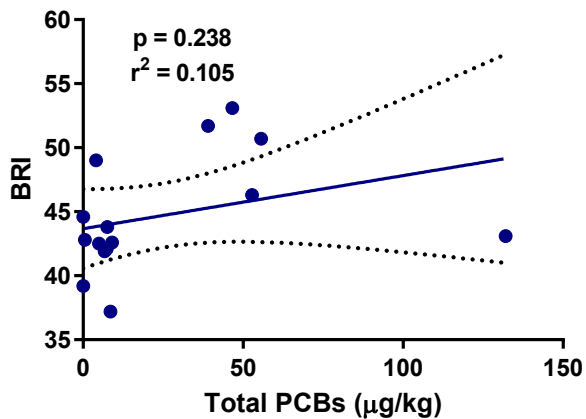


Total PCBs

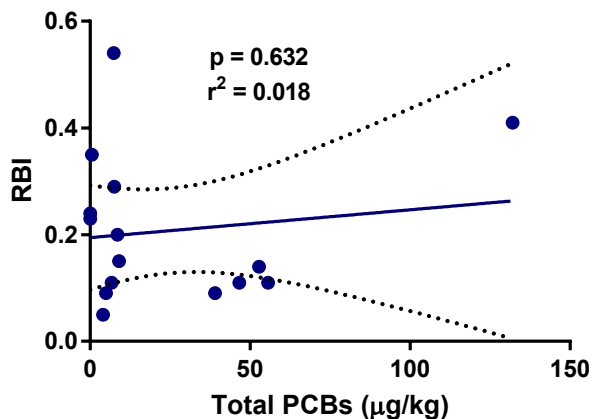
**Total PCBs vs Fines
Freshwater Stratum**



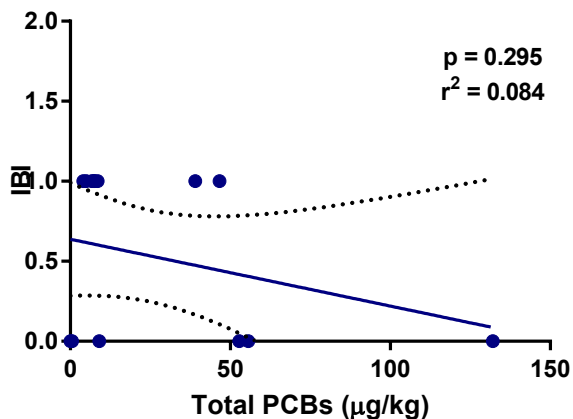
**Total PCBs vs BRI
Freshwater Stratum**



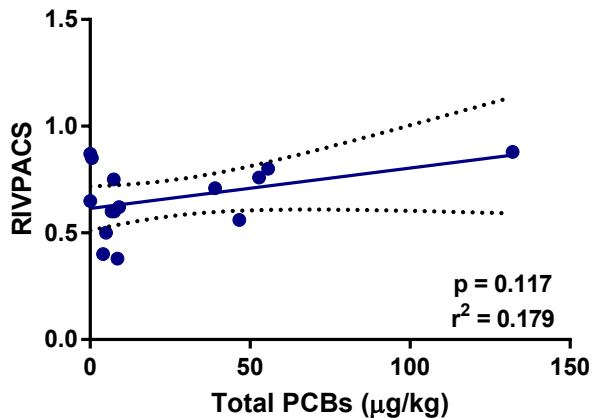
**Total PCBs vs RBI
Freshwater Stratum**



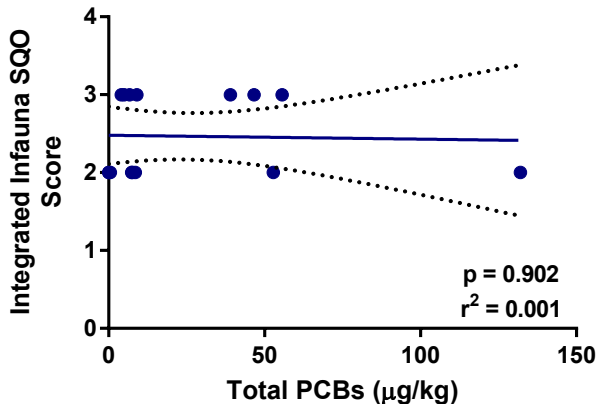
**Total PCBs vs IBI
Freshwater Stratum**



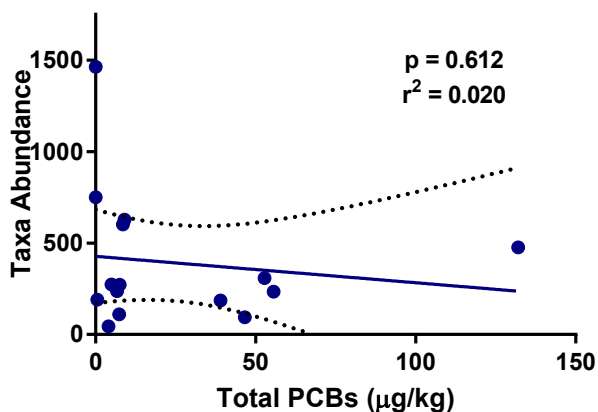
**Total PCBs vs RIVPACS
Freshwater Stratum**



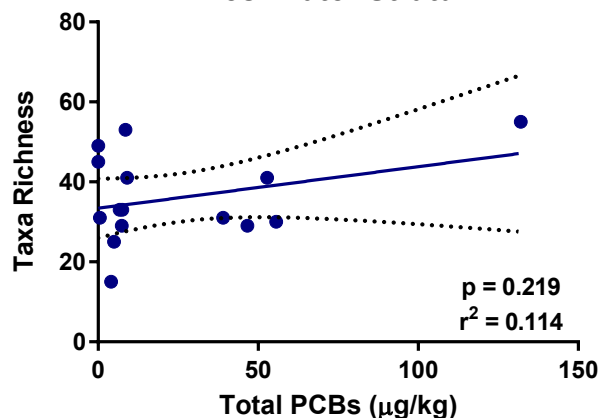
**Total PCBs vs Integrated Benthic SQO Score
Freshwater Stratum**



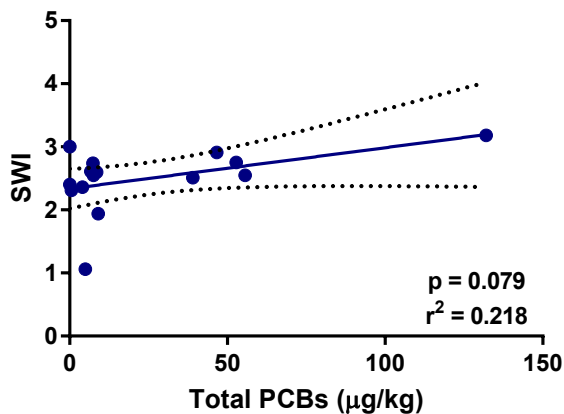
**Total PCBs vs Taxa Abundance
Freshwater Stratum**



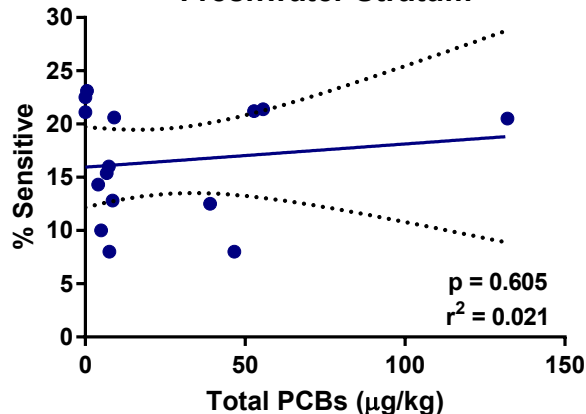
**Total PCBs vs Taxa Richness
Freshwater Stratum**



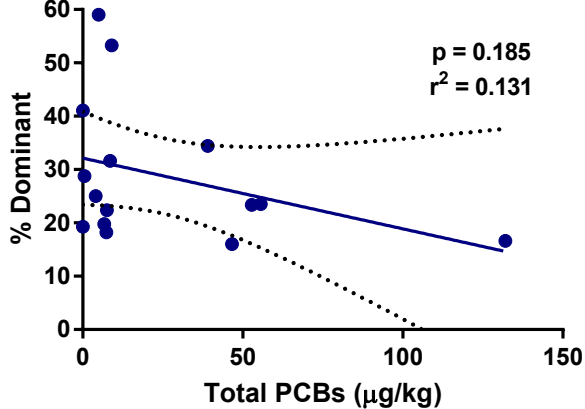
**Total PCBs vs Shannon Weiner Diversity Index
Freshwater Stratum**



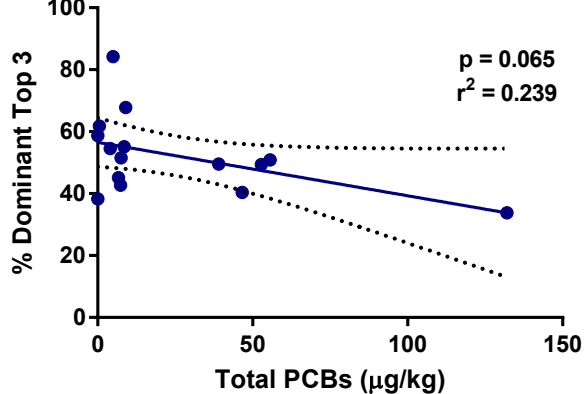
**Total PCBs vs % Sensitive Species
Freshwater Stratum**

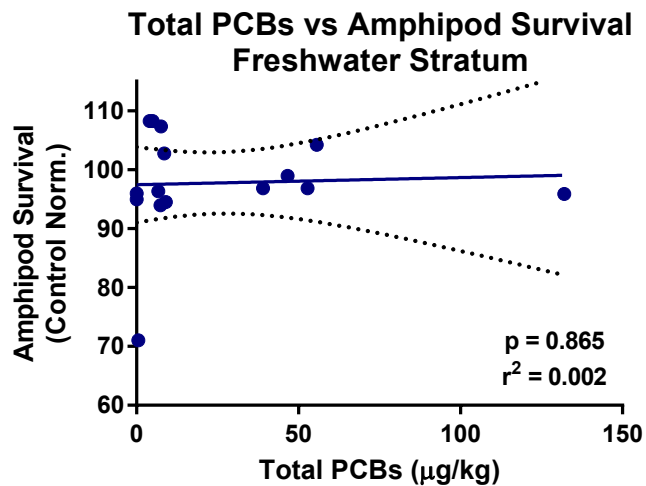
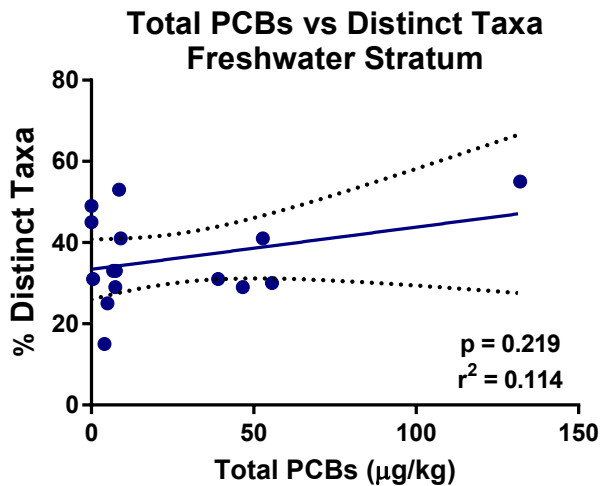
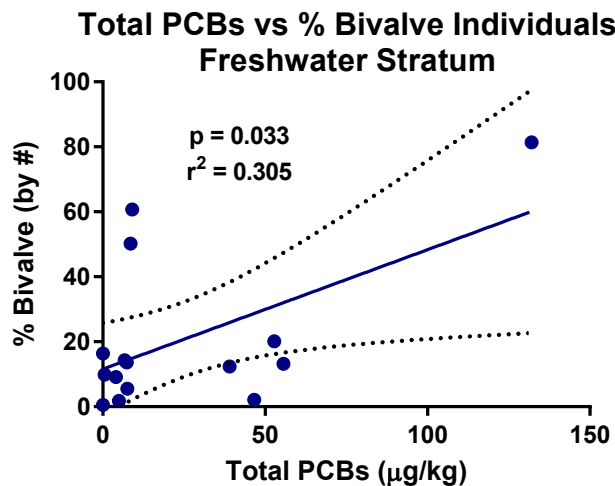
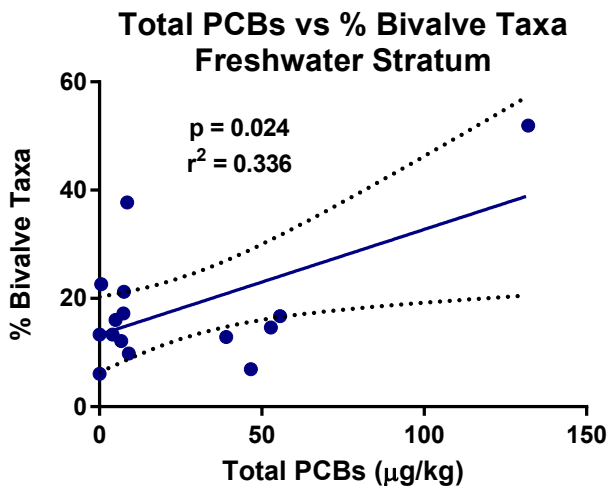
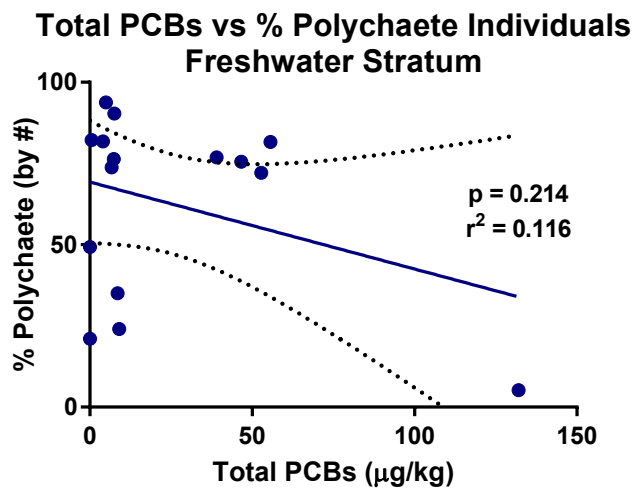
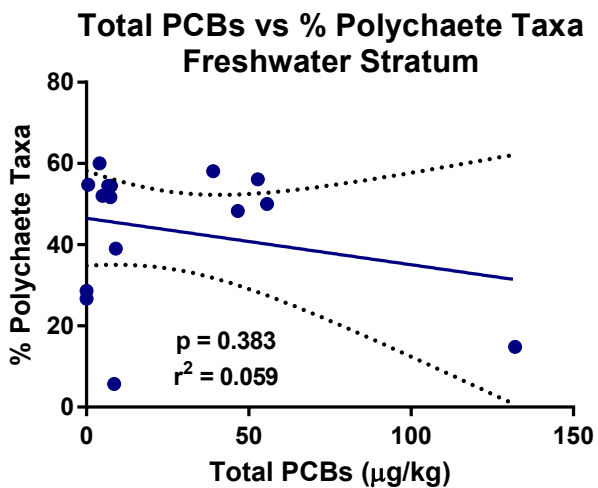


**Total PCBs vs % Dominant Species
Freshwater Stratum**

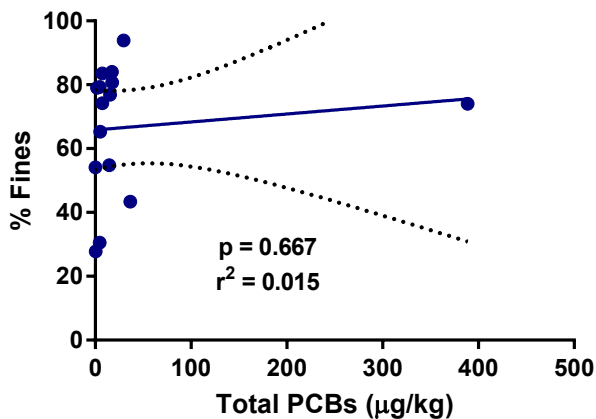


**Total PCBs vs % Dominant Species - Top 3
Freshwater Stratum**

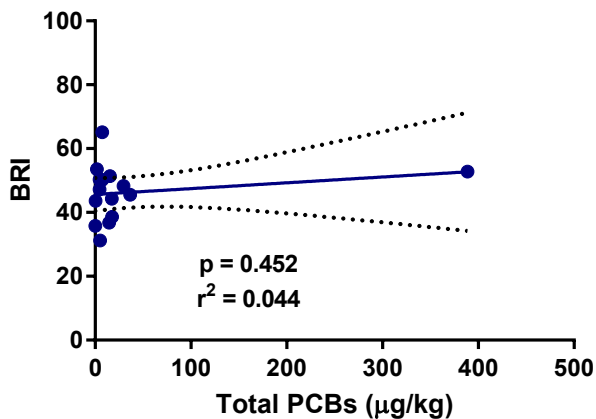




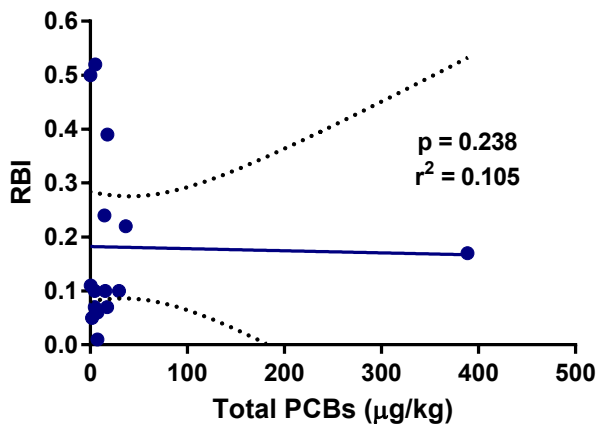
**Total PCBs vs Fines
Marinas**



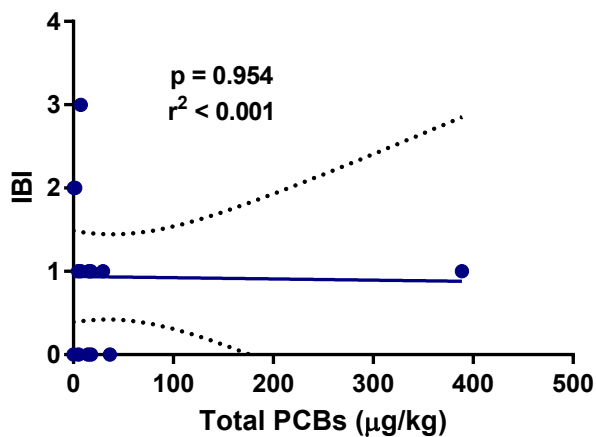
**Total PCBs vs BRI
Marinas**



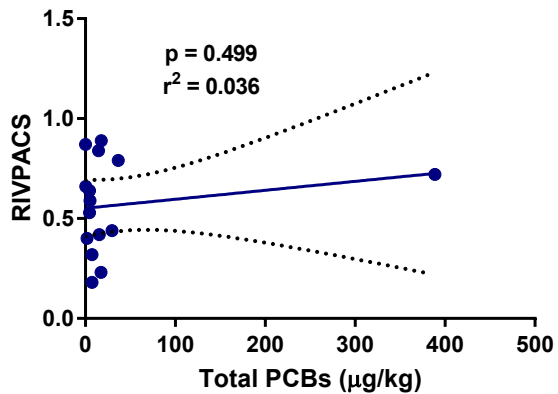
**Total PCBs vs RBI
Marinas**



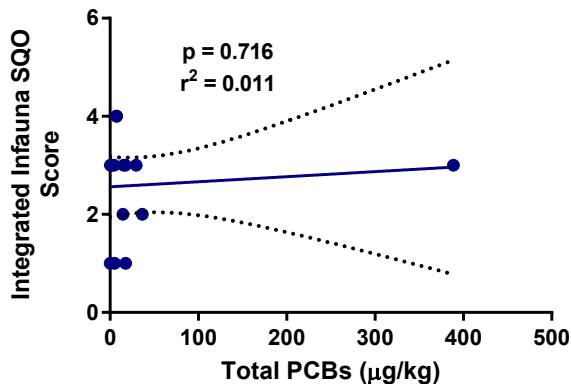
**Total PCBs vs IBI
Marinas**



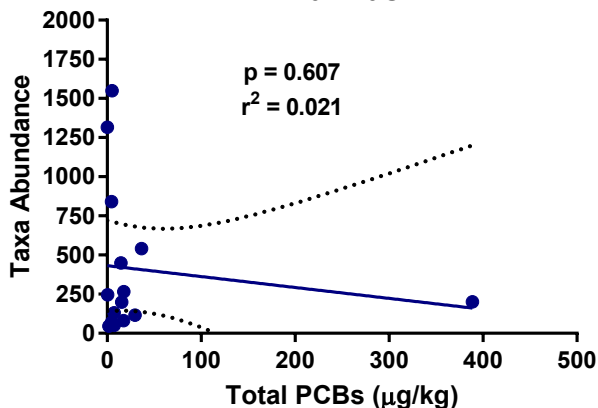
**Total PCBs vs RIVPACS
Marinas**



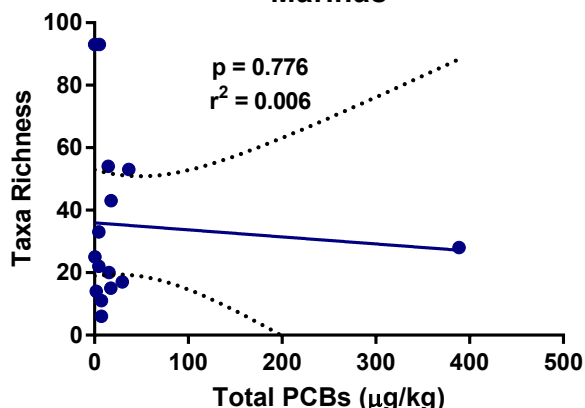
**Total PCBs vs Integrated Benthic SQO Score
Marinas**



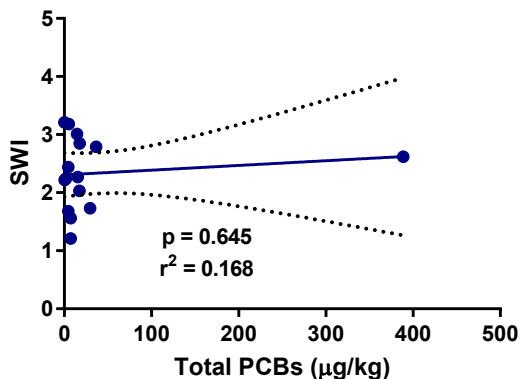
**Total PCBs vs Taxa Abundance
Marinas**



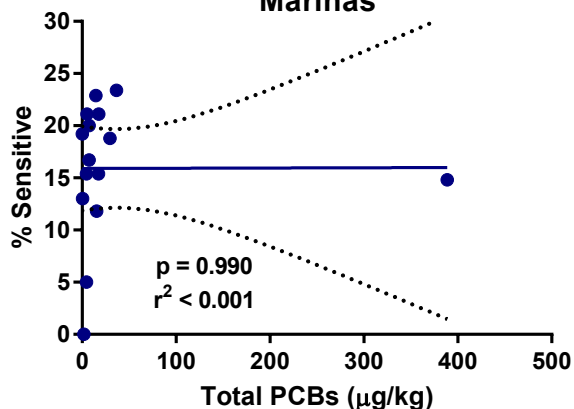
**Total PCBs vs Taxa Richness
Marinas**



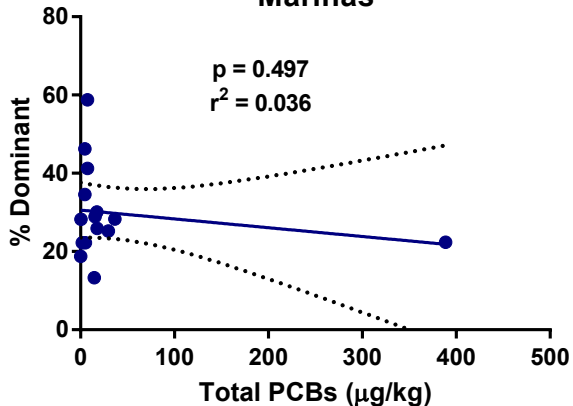
**Total PCBs vs Shannon Weiner Diversity Index
Marinas**



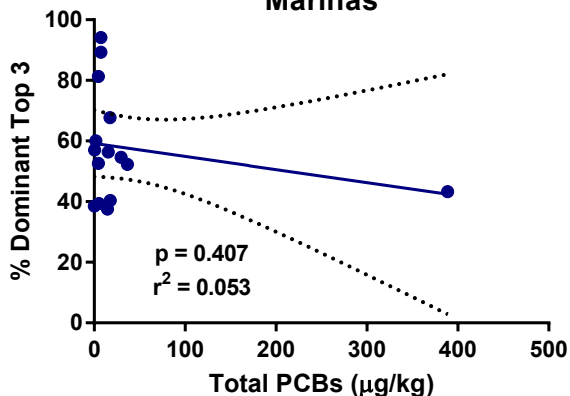
**Total PCBs vs % Sensitive Species
Marinas**

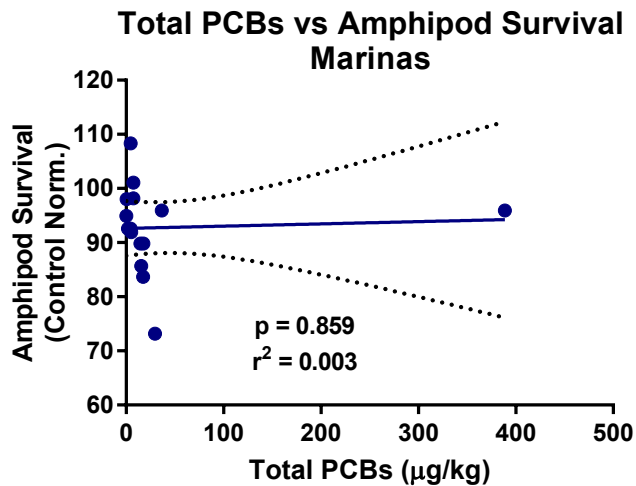
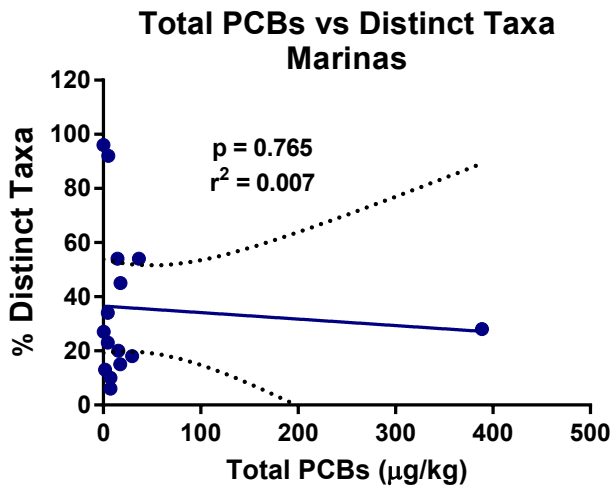
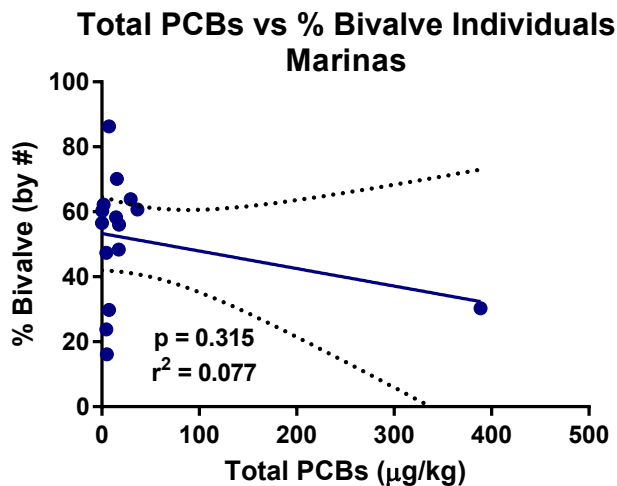
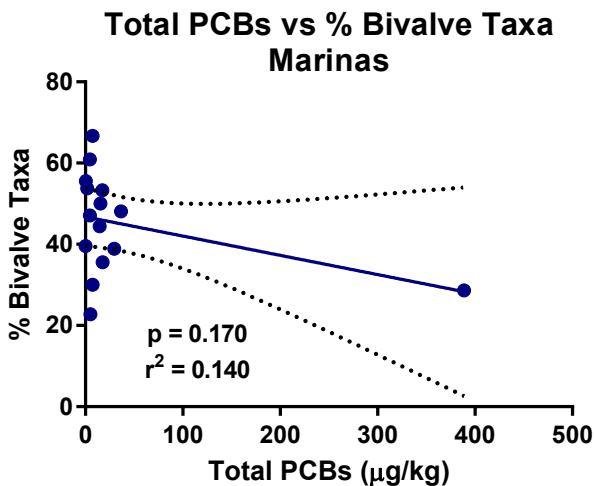
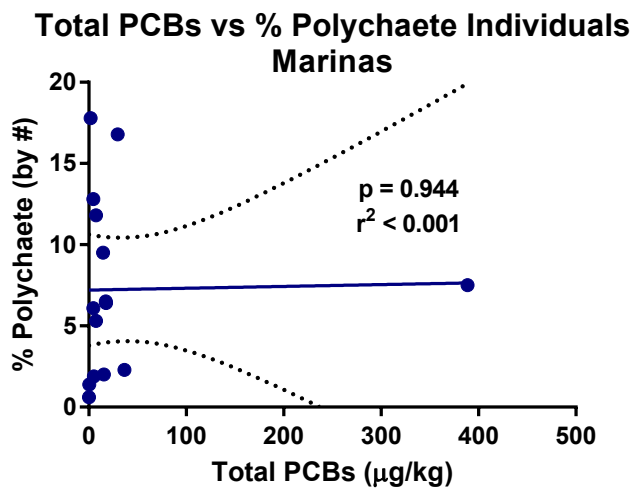
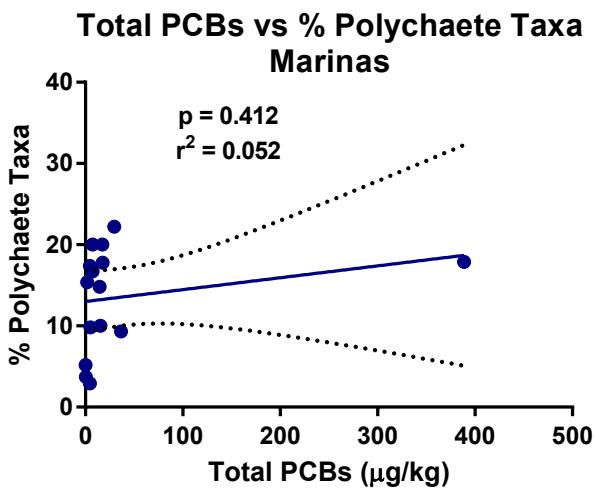


**Total PCBs vs % Dominant Species
Marinas**

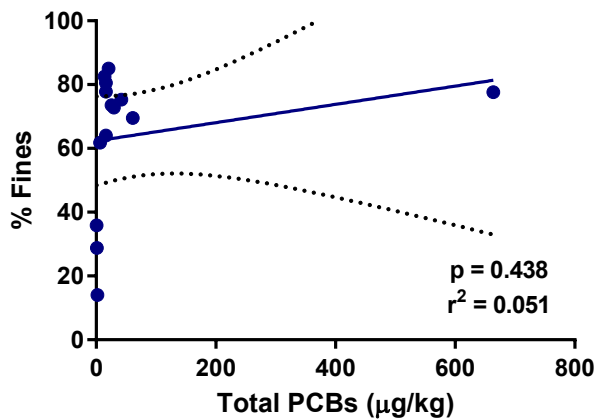


**Total PCBs vs % Dominant Species - Top 3
Marinas**

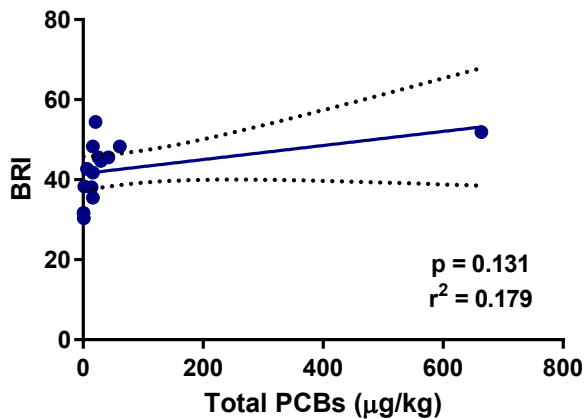




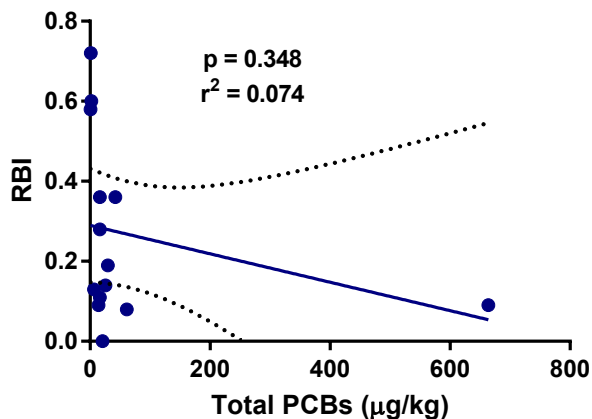
**Total PCBs vs Fines
Industrial/Port Stratum**



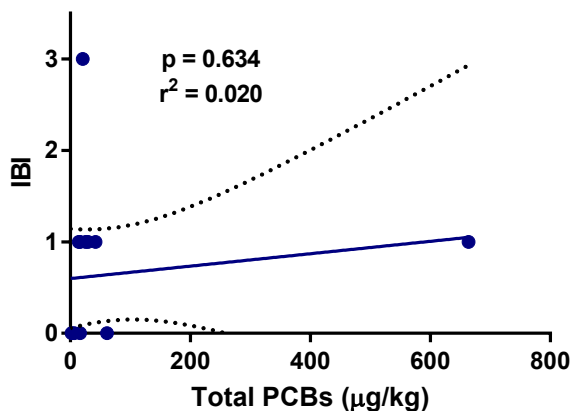
**Total PCBs vs BRI
Industrial/Port Stratum**



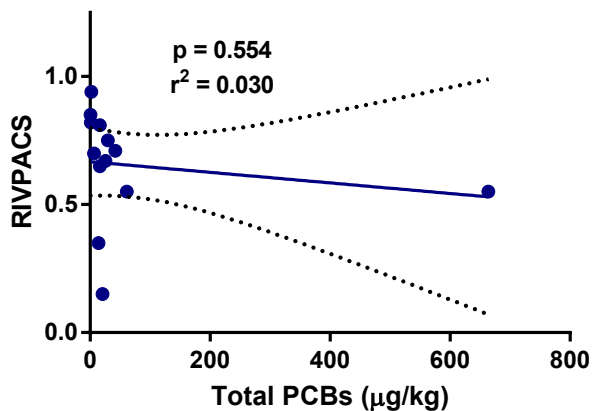
**Total PCBs vs RBI
Industrial/Port Stratum**



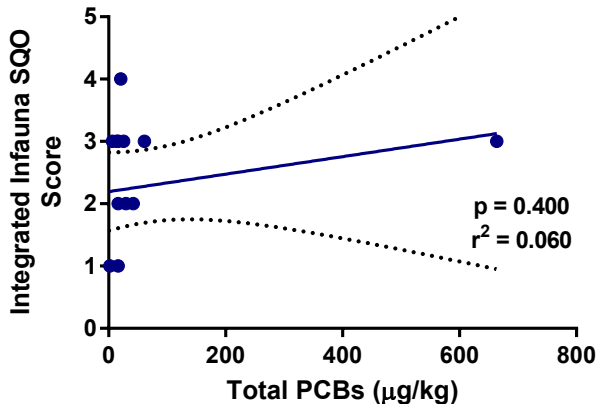
**Total PCBs vs IBI
Industrial/Port Stratum**



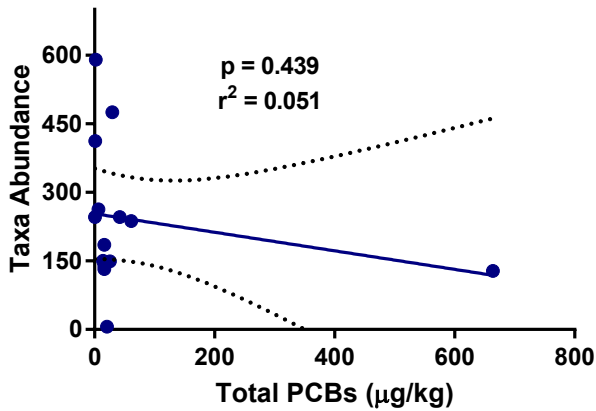
**Total PCBs vs RIVPACS
Industrial/Port Stratum**



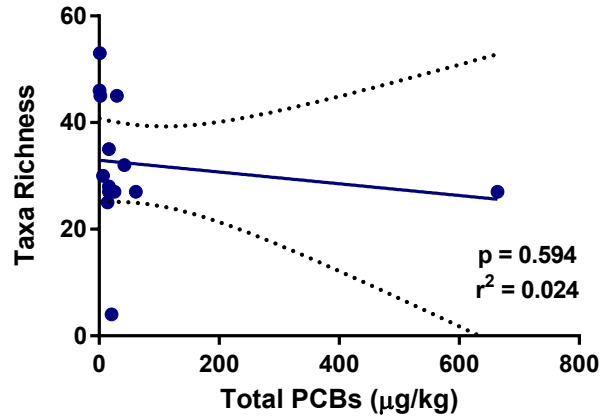
**Total PCBs vs Integrated Benthic SQO Score
Industrial/Port Stratum**



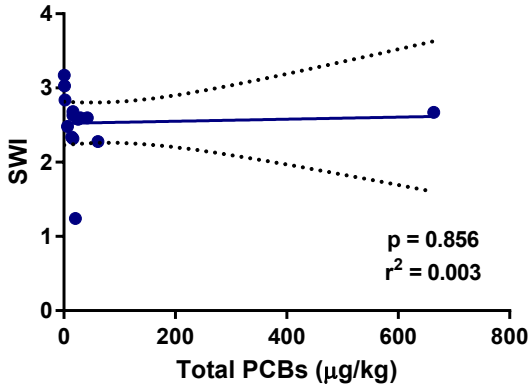
**Total PCBs vs Taxa Abundance
Industrial/Port Stratum**



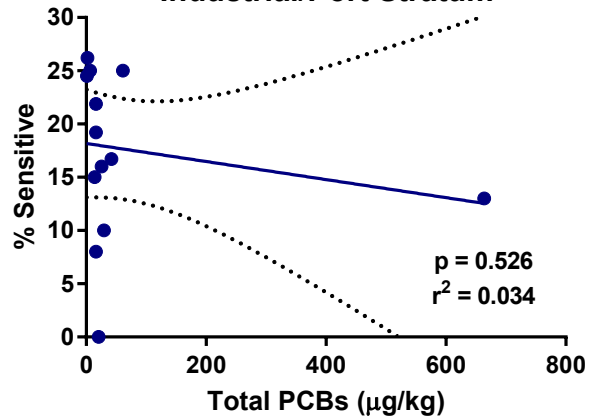
**Total PCBs vs Taxa Richness
Industrial/Port Stratum**



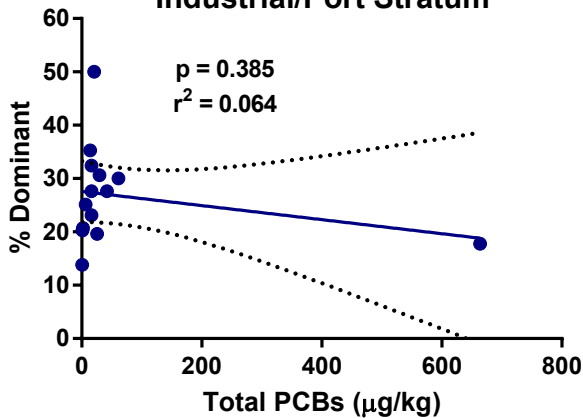
**Total PCBs vs Shannon Weiner Diversity Index
Industrial/Port Stratum**



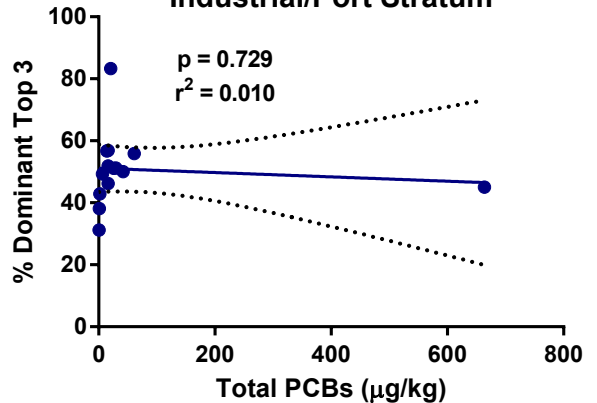
**Total PCBs vs % Sensitive Species
Industrial/Port Stratum**

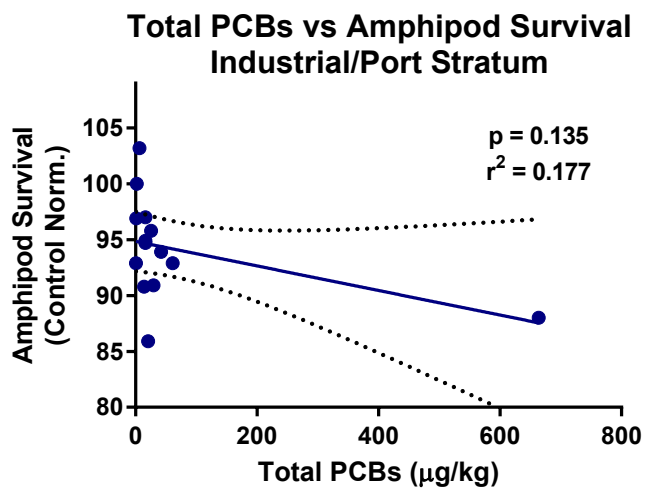
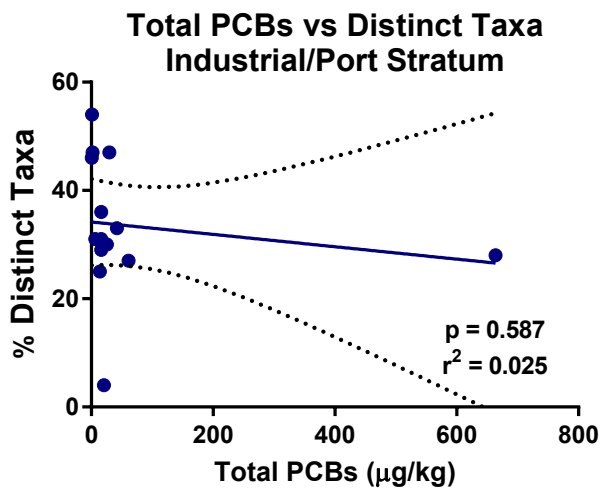
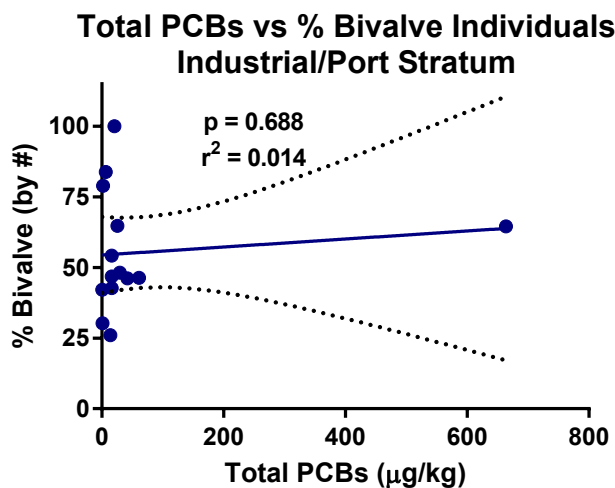
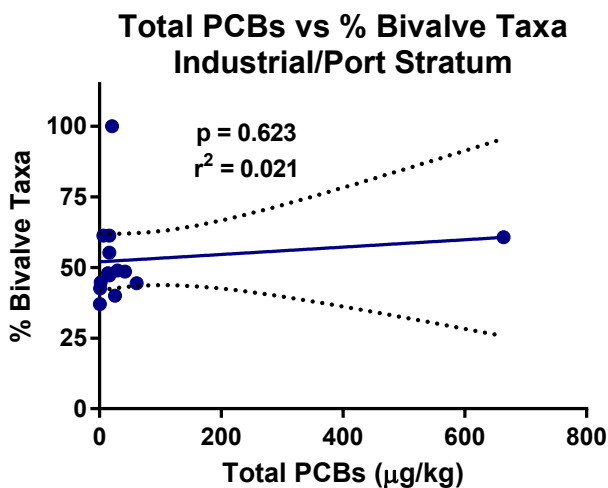
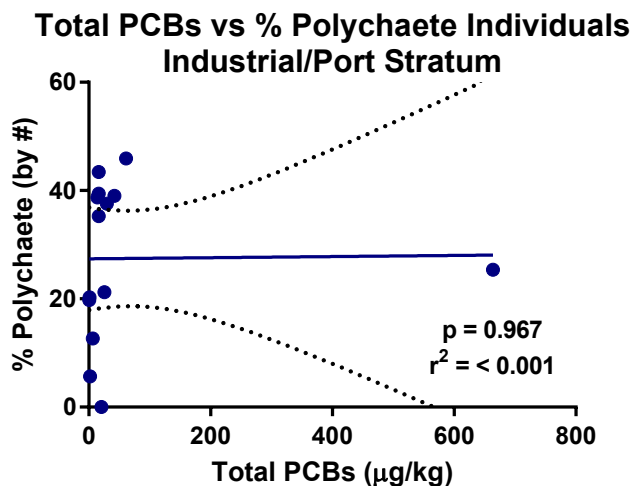
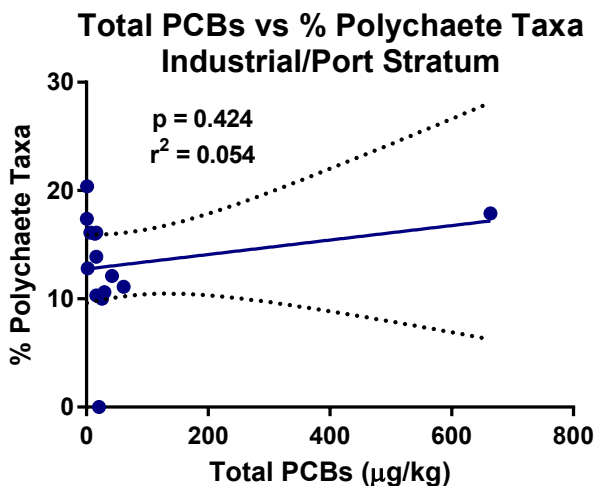


**Total PCBs vs % Dominant Species
Industrial/Port Stratum**



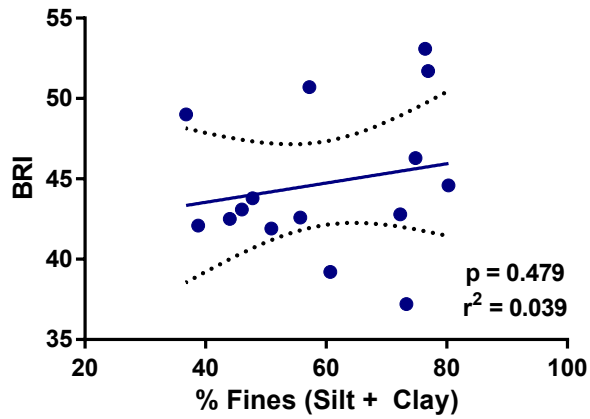
**Total PCBs vs % Dominant Species - Top 3
Industrial/Port Stratum**



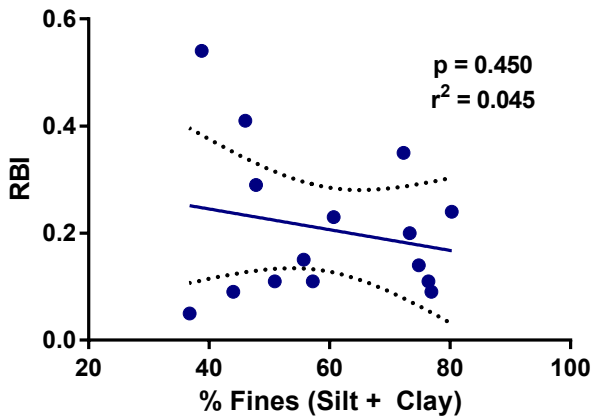


Grain Size
(% Fines)

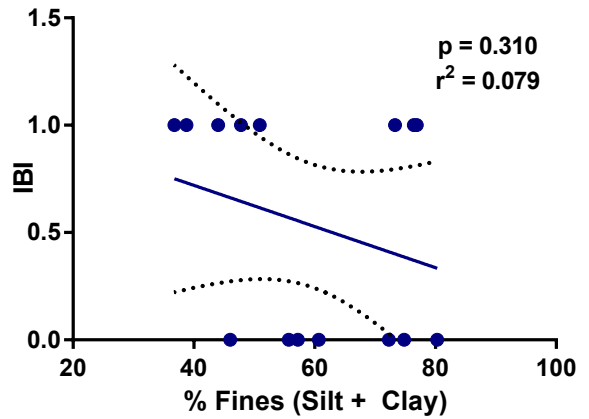
% Fines vs BRI
Freshwater Influence Stratum



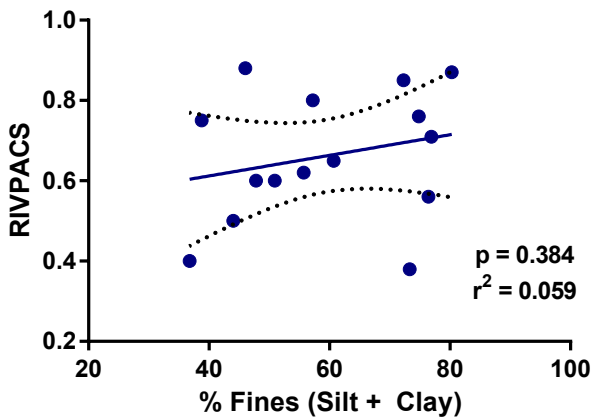
% Fines vs RBI
Freshwater Influence Stratum



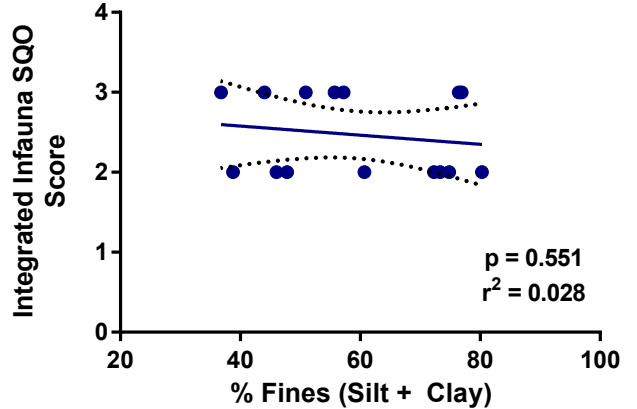
% Fines vs IBI
Freshwater Influence Stratum



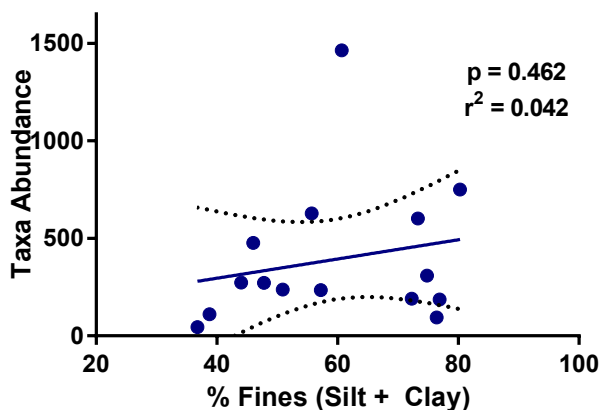
% Fines vs RIVPACS
Freshwater Influence Stratum



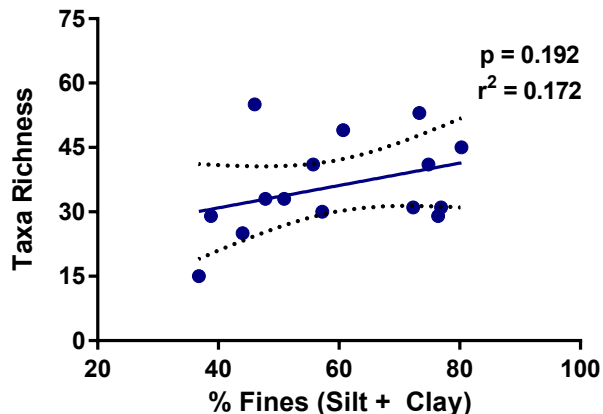
% Fines vs Integrated Benthic SQO Score
Freshwater Influence Stratum



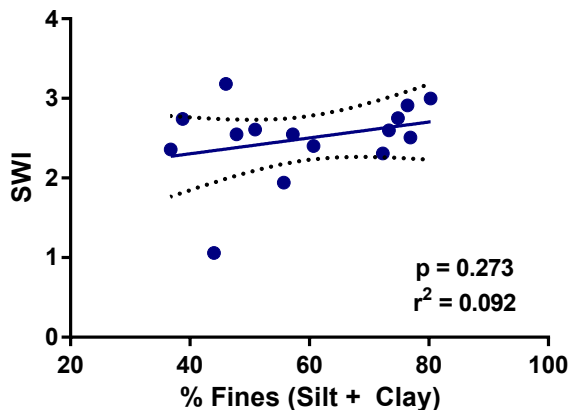
**% Fines vs Taxa Abundance
Freshwater Influence Stratum**



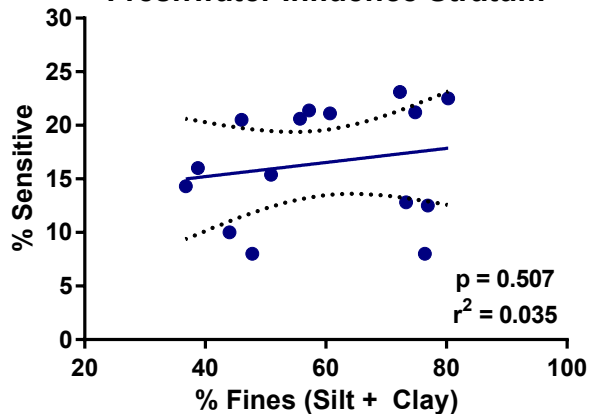
**% Fines vs Taxa Richness
Freshwater Influence Stratum**



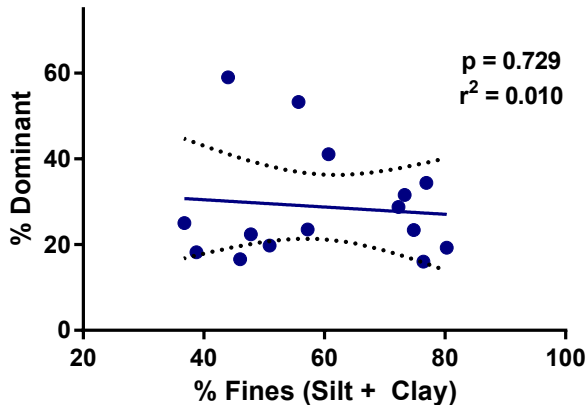
**% Fines vs Shannon Weiner Diversity Index
Freshwater Influence Stratum**



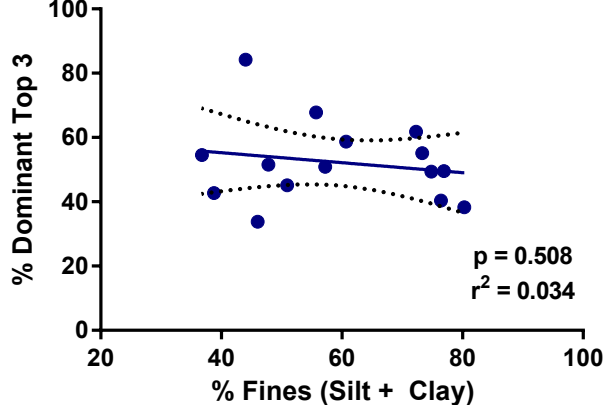
**% Fines vs % Sensitive Species
Freshwater Influence Stratum**

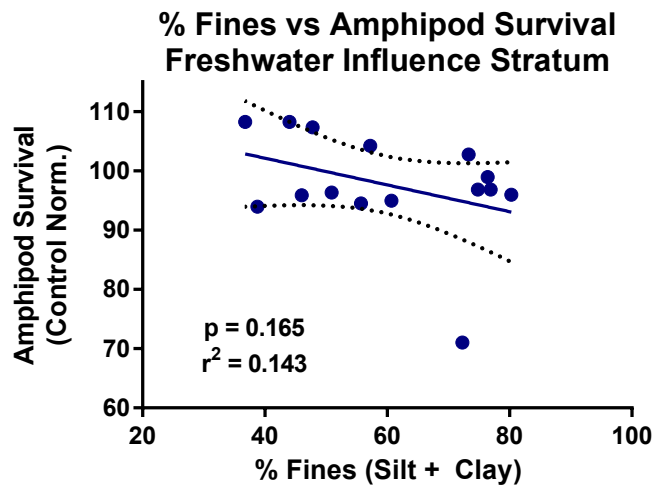
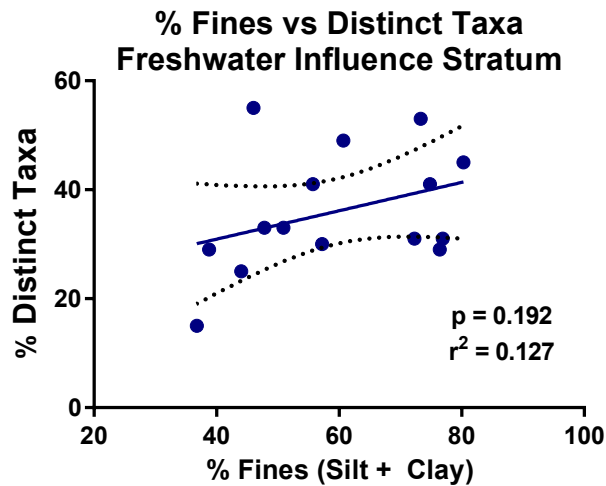
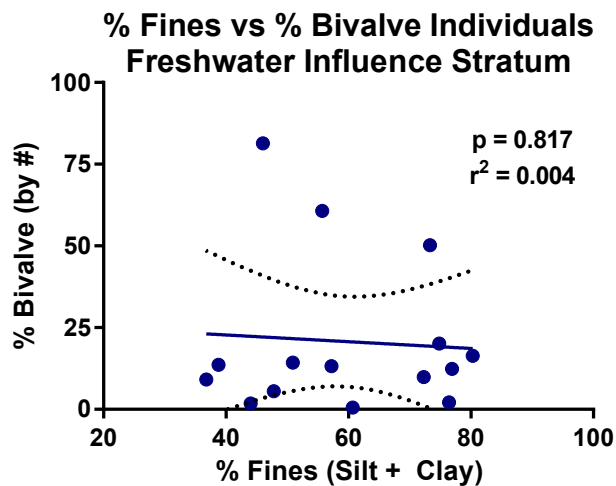
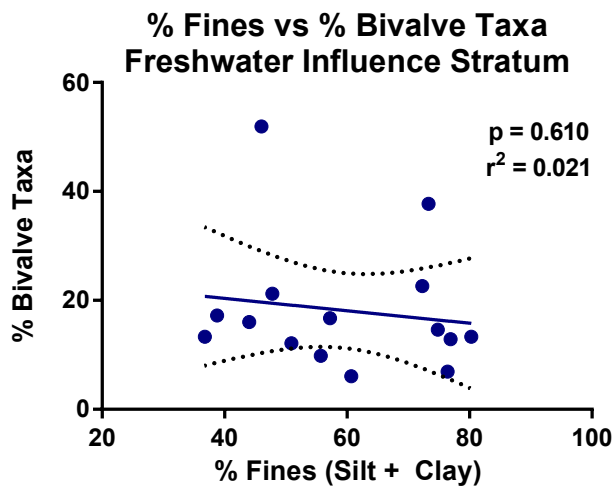
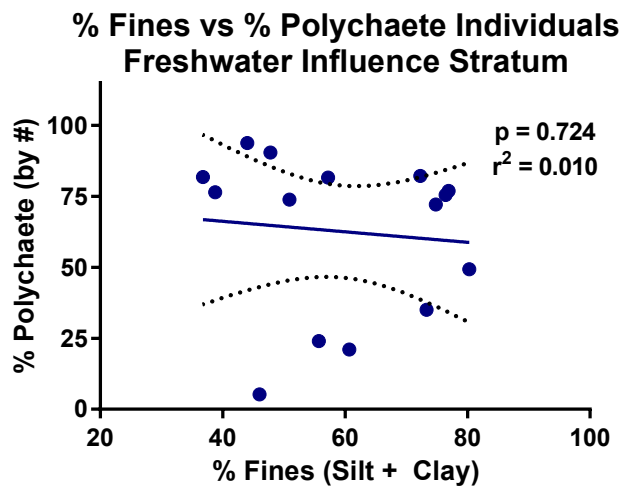
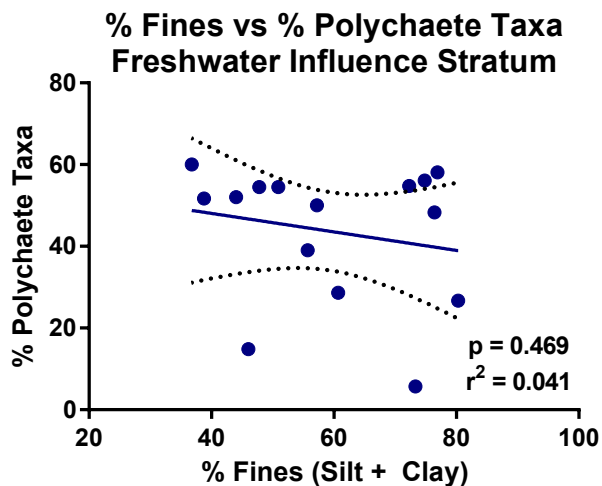


**% Fines vs % Dominant Species
Freshwater Influence Stratum**

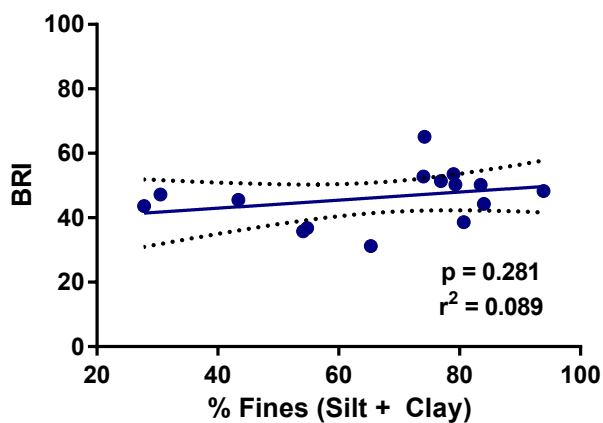


**% Fines vs % Dominant Species - Top 3
Freshwater Influence Stratum**

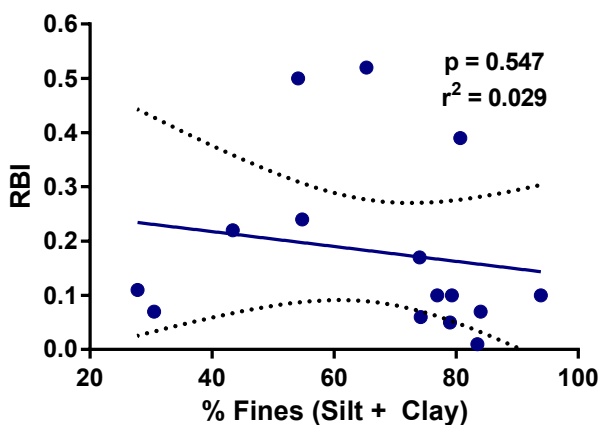




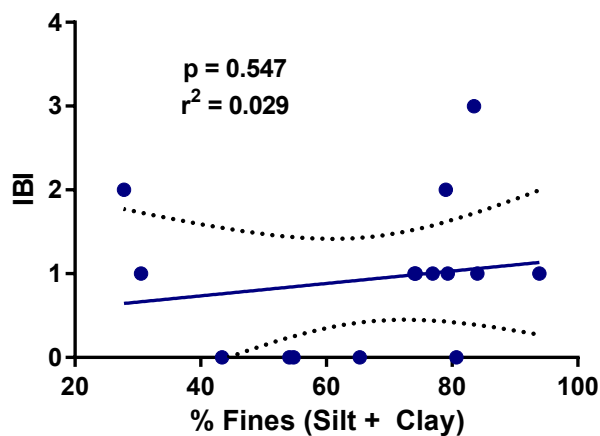
**% Fines vs BRI
Marinas**



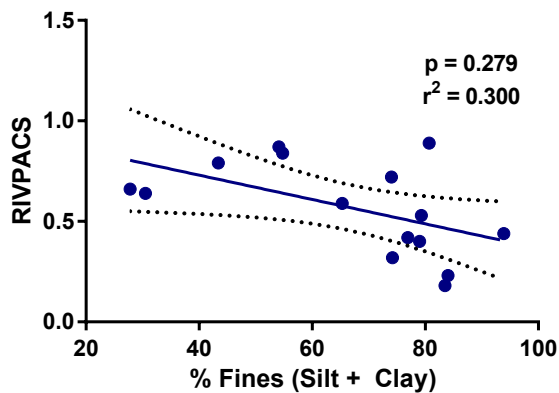
**% Fines vs RBI
Marinas**



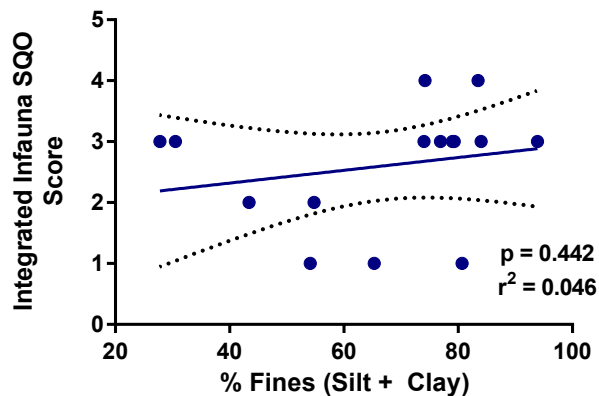
**% Fines vs IBI
Marinas**



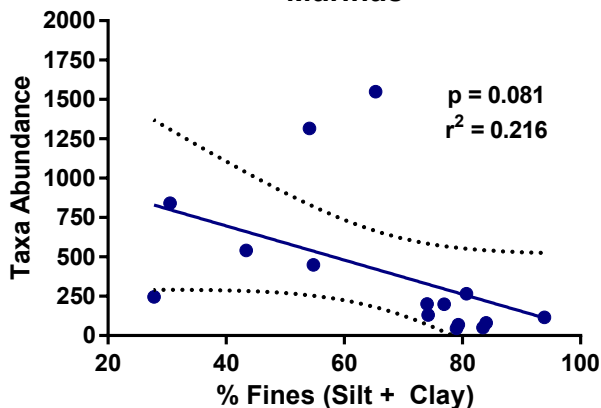
**% Fines vs RIVPACS
Marinas**



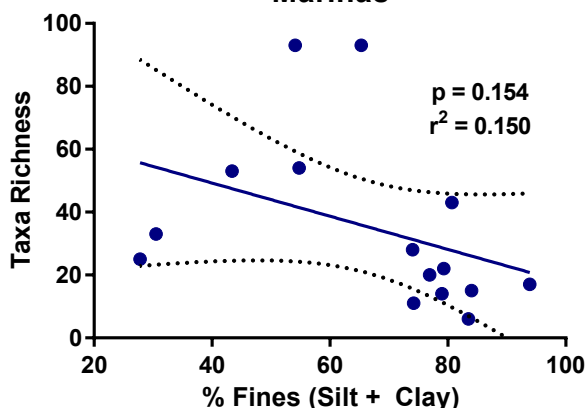
**% Fines vs Integrated Benthic SQO Score
Marinas**



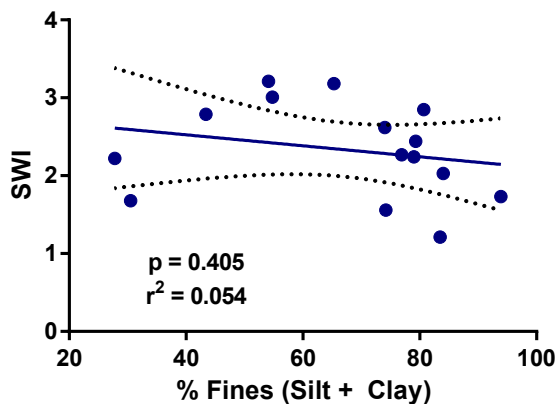
**% Fines vs Taxa Abundance
Marinas**



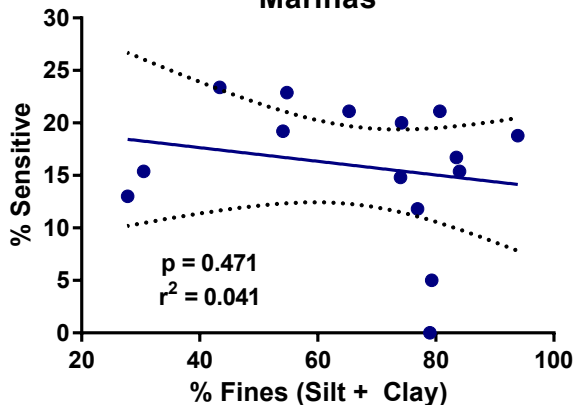
**% Fines vs Taxa Richness
Marinas**



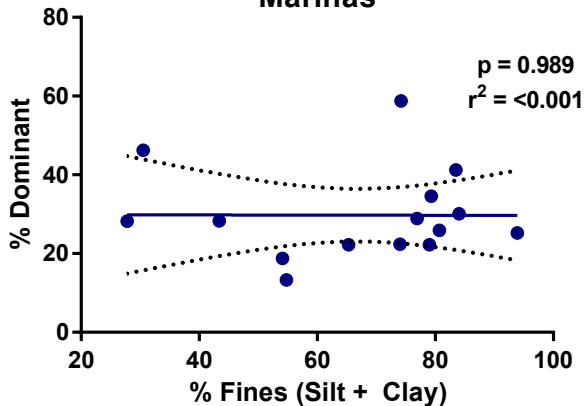
**% Fines vs Shannon Weiner Diversity Index
Marinas**



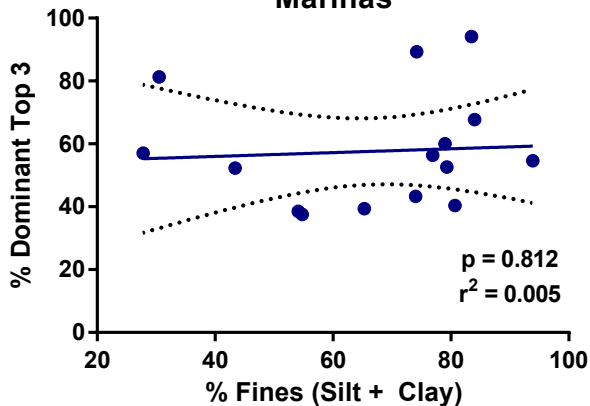
**% Fines vs % Sensitive Species
Marinas**



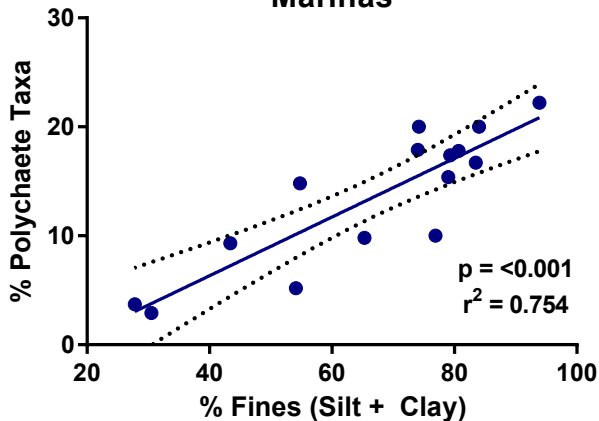
**% Fines vs % Dominant Species
Marinas**



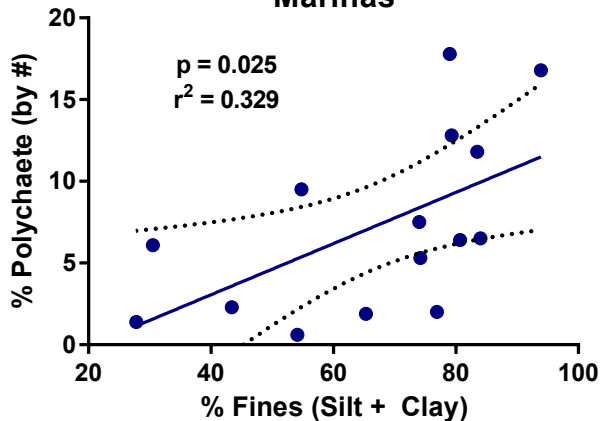
**% Fines vs % Dominant Species - Top 3
Marinas**



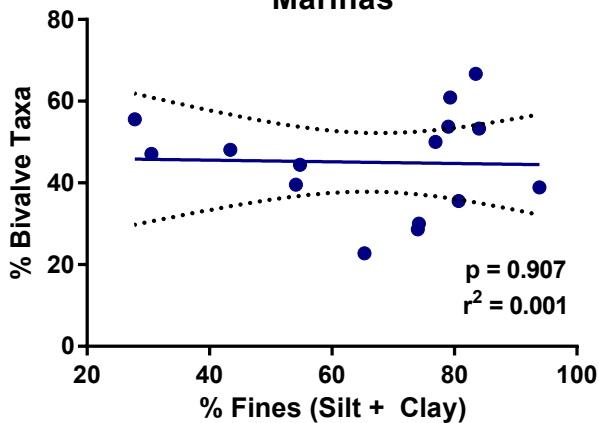
**% Fines vs % Polychaete Taxa
Marinas**



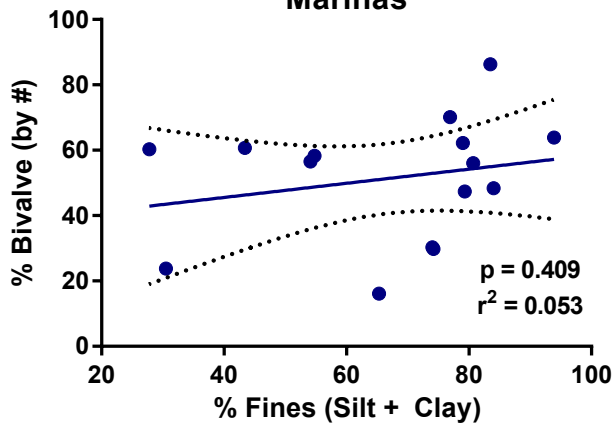
**% Fines vs % Polychaete Individuals
Marinas**



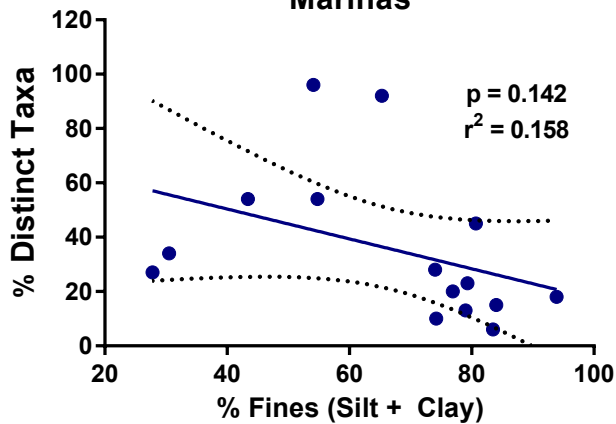
**% Fines vs % Bivalve Taxa
Marinas**



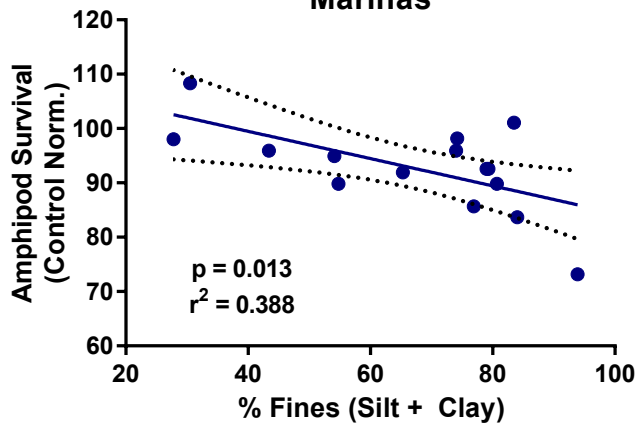
**% Fines vs % Bivalve Individuals
Marinas**



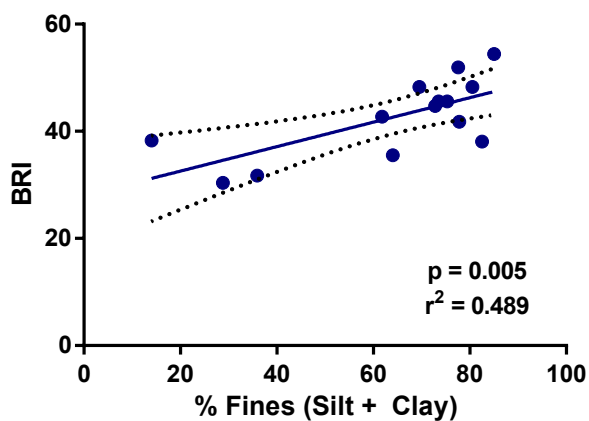
**% Fines vs Distinct Taxa
Marinas**



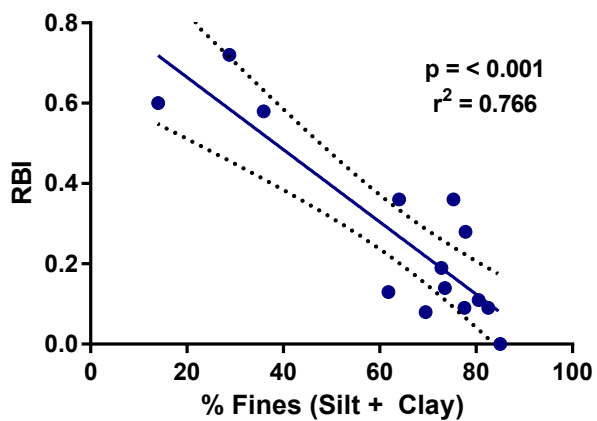
**% Fines vs Amphipod Survival
Marinas**



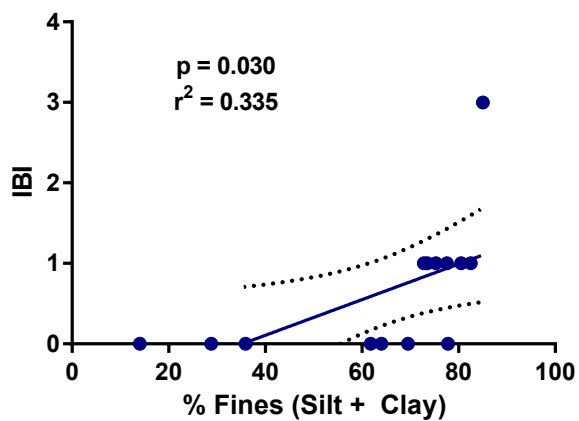
**% Fines vs BRI
Industrial/Port Stratum**



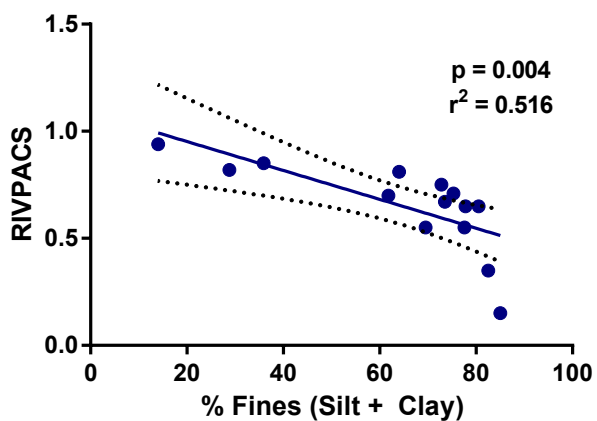
**% Fines vs RBI
Industrial/Port Stratum**



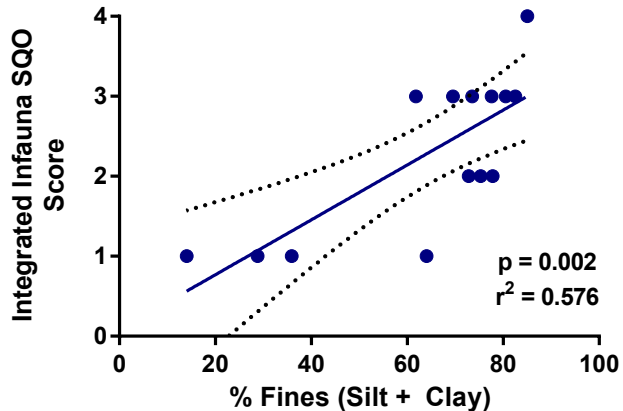
**% Fines vs IBI
Industrial/Port Stratum**



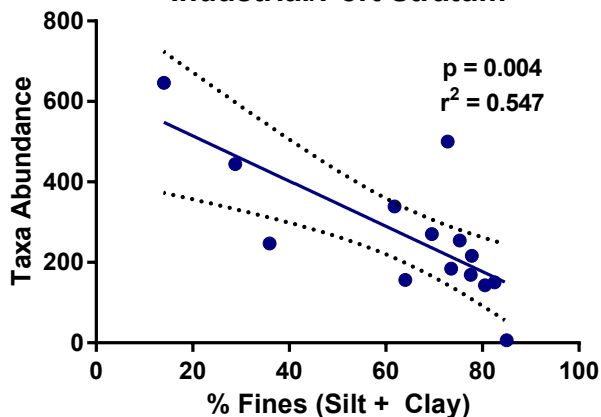
**% Fines vs RIVPACS
Industrial/Port Stratum**



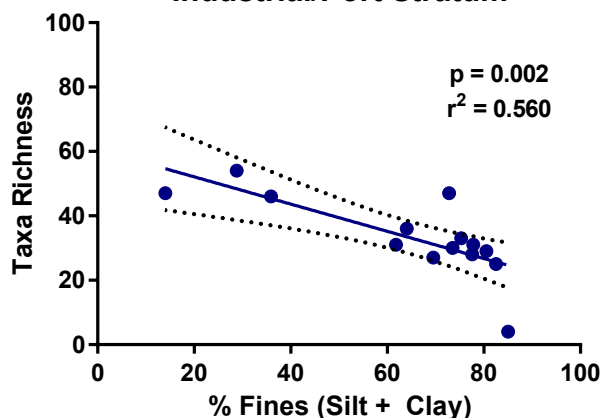
**% Fines vs Integrated Benthic SQO Score
Industrial/Port Stratum**



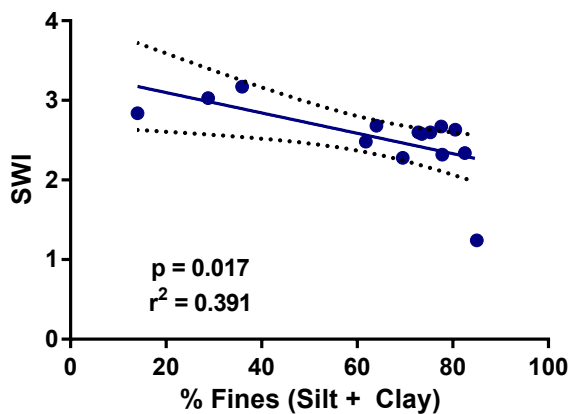
**% Fines vs Taxa Abundance
Industrial/Port Stratum**



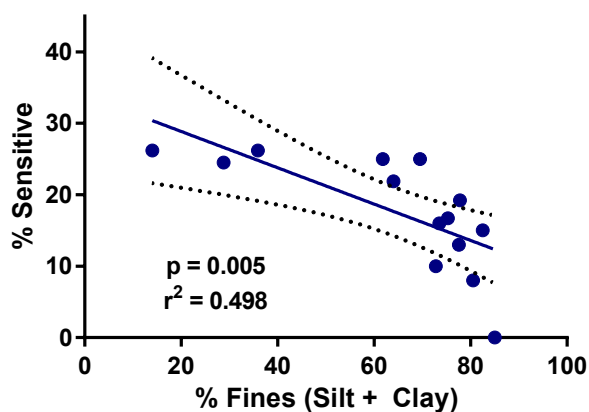
**% Fines vs Taxa Richness
Industrial/Port Stratum**



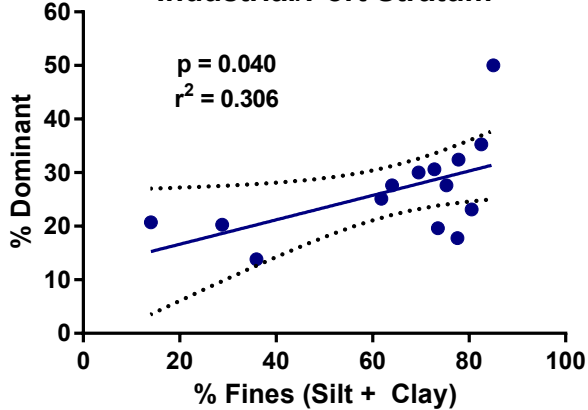
**% Fines vs Shannon Weiner Diversity Index
Industrial/Port Stratum**



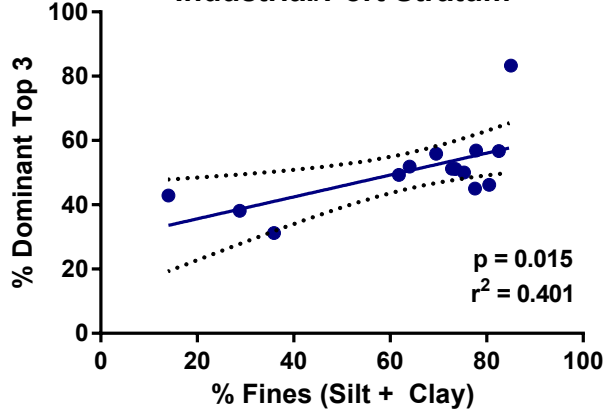
**% Fines vs % Sensitive Species
Industrial/Port Stratum**

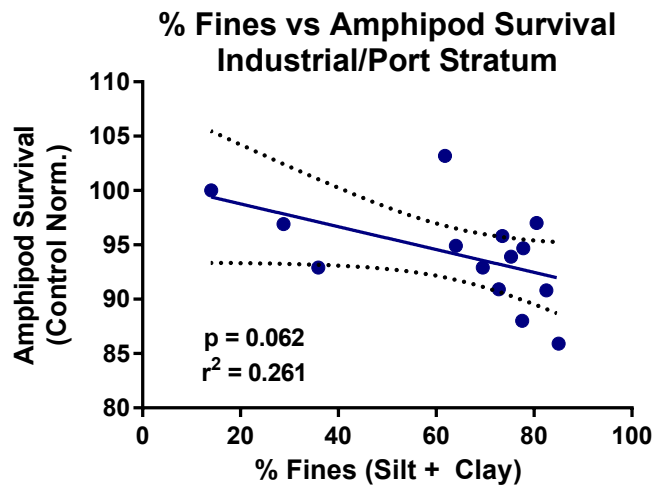
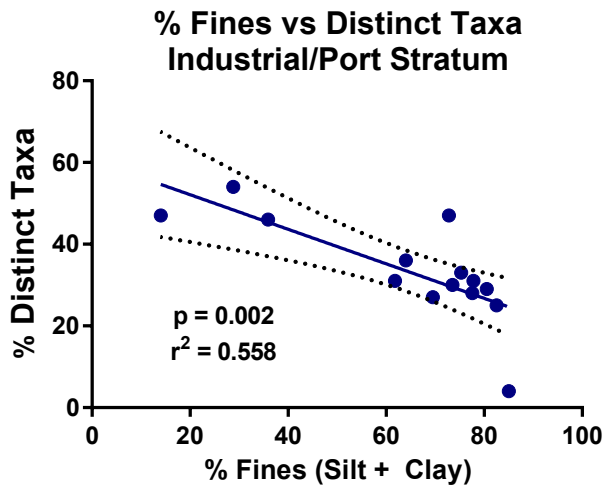
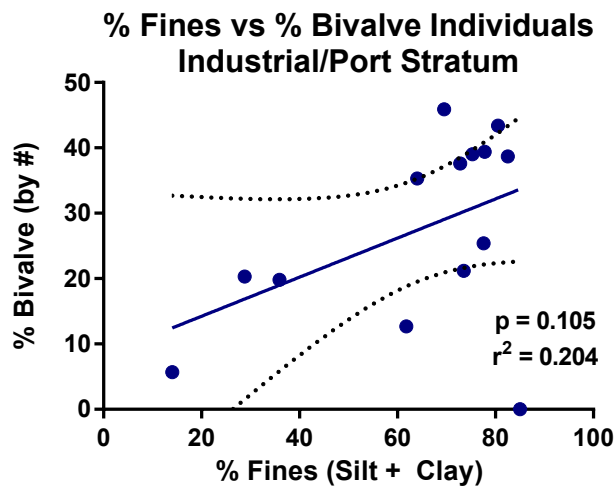
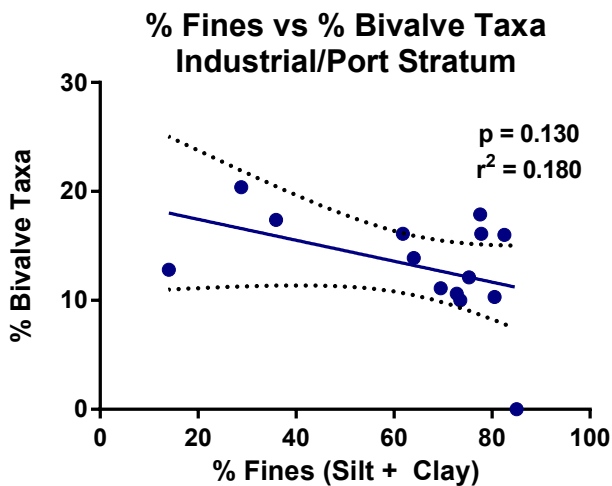
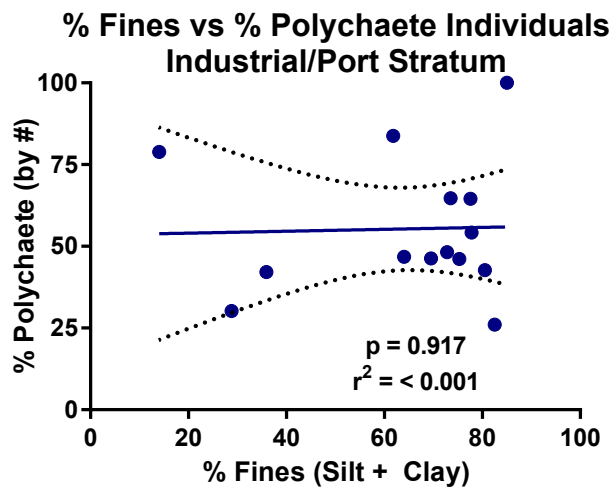
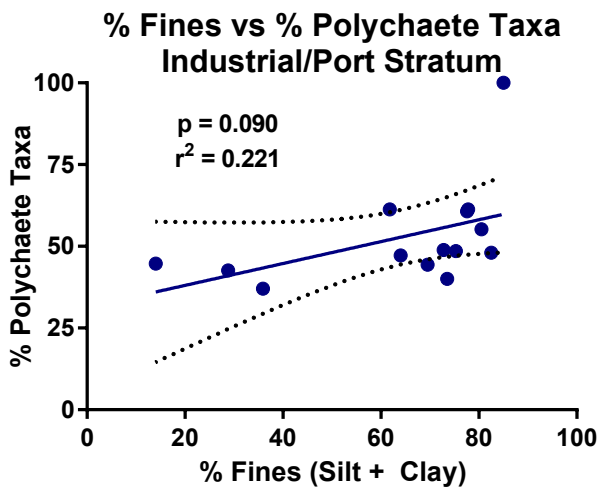


**% Fines vs % Dominant Species
Industrial/Port Stratum**



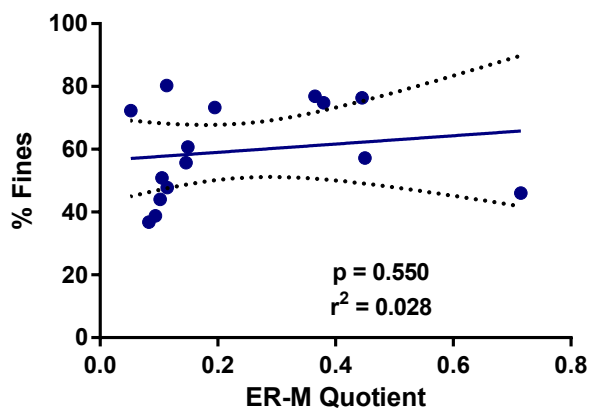
**% Fines vs % Dominant Species - Top 3
Industrial/Port Stratum**



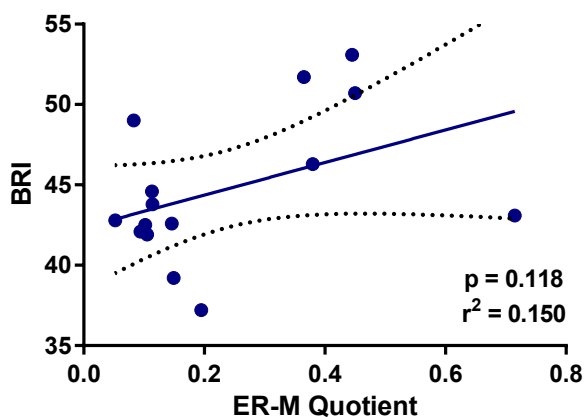


ERM-Q

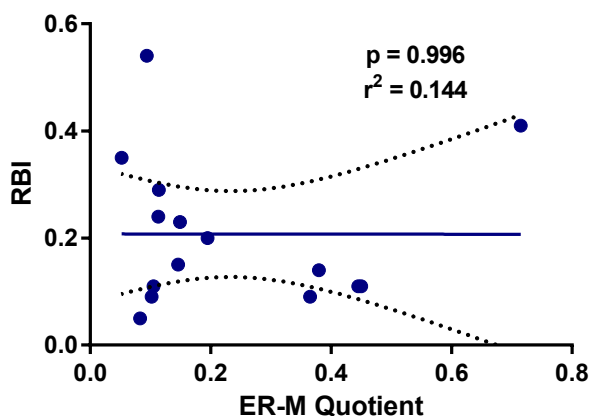
ERM-Q vs Fines
Freshwater Stratum



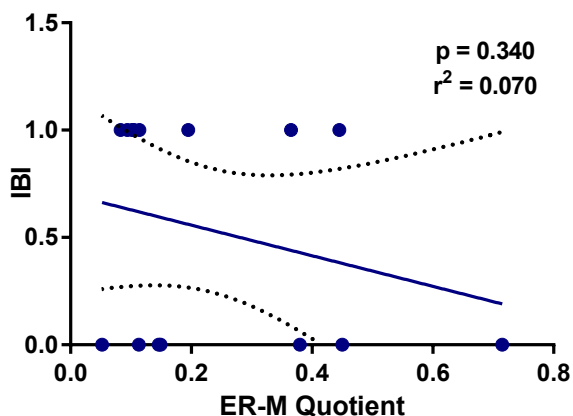
ERM-Q vs BRI
Freshwater Influence Stratum



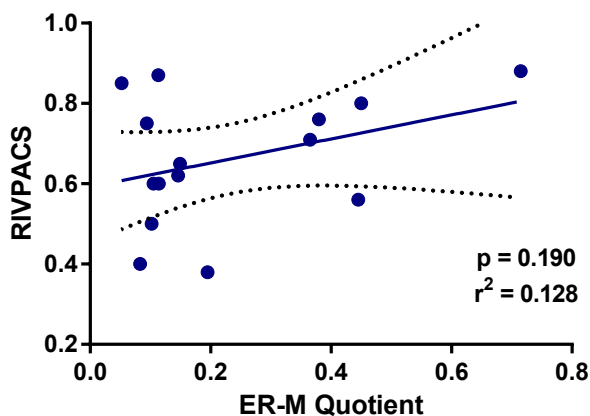
ERM-Q vs RBI
Freshwater Influence Stratum



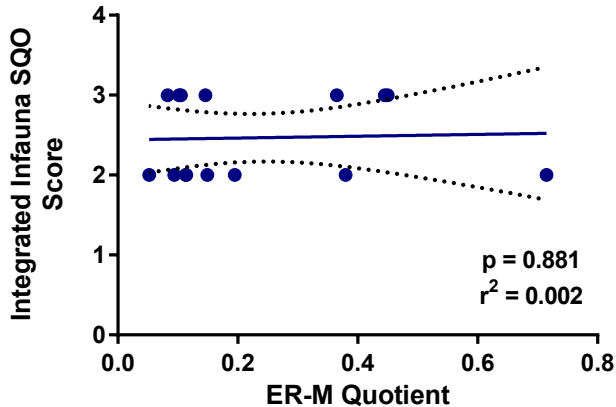
ERM-Q vs IBI
Freshwater Influence Stratum



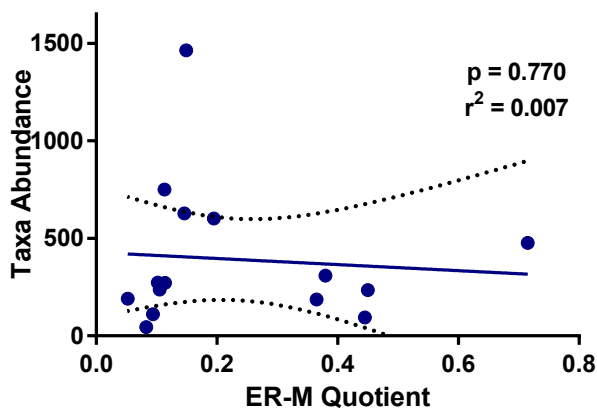
ERM-Q vs RIVPACS
Freshwater Influence Stratum



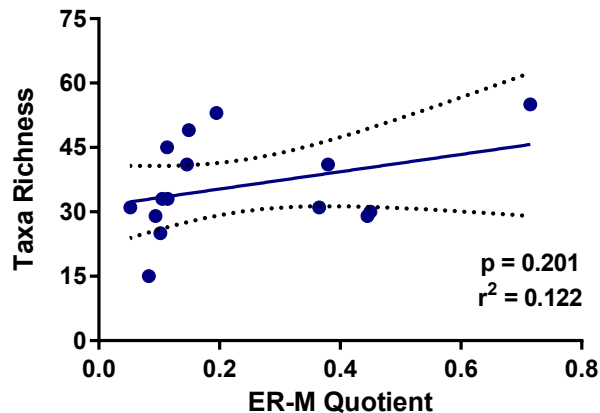
ERM-Q vs Integrated Benthic SQO Score
Freshwater Influence Stratum



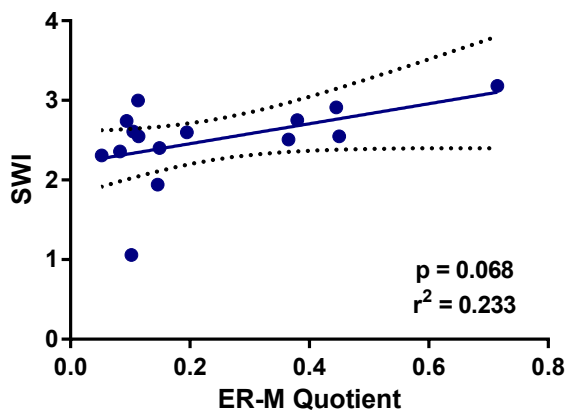
ERM-Q vs Taxa Abundance
Freshwater Influence Stratum



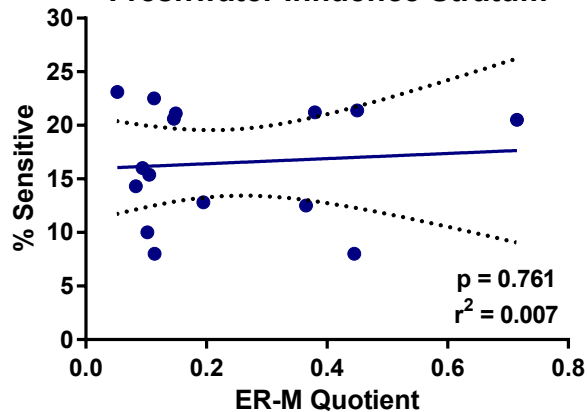
ERM-Q vs Taxa Richness
Freshwater Influence Stratum



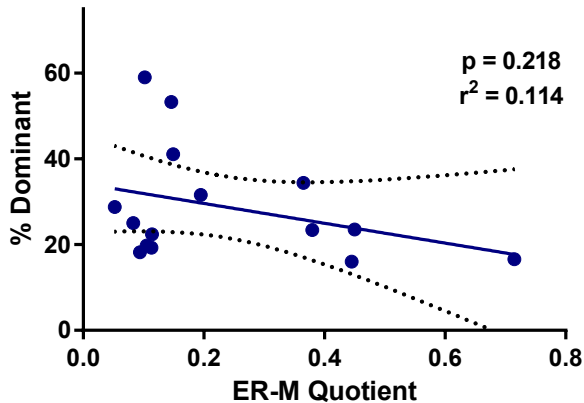
ERM-Q vs Shannon Weiner Diversity Index
Freshwater Influence Stratum



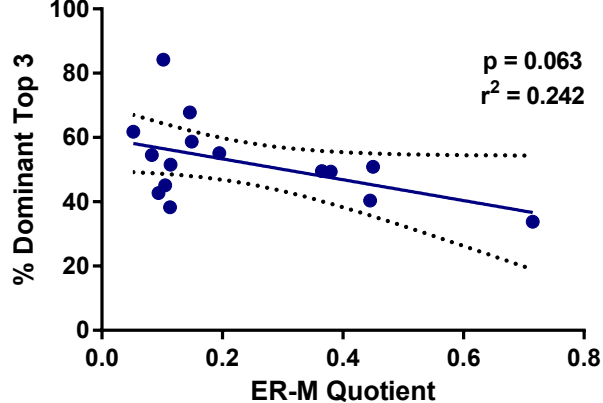
ERM-Q vs % Sensitive Species
Freshwater Influence Stratum

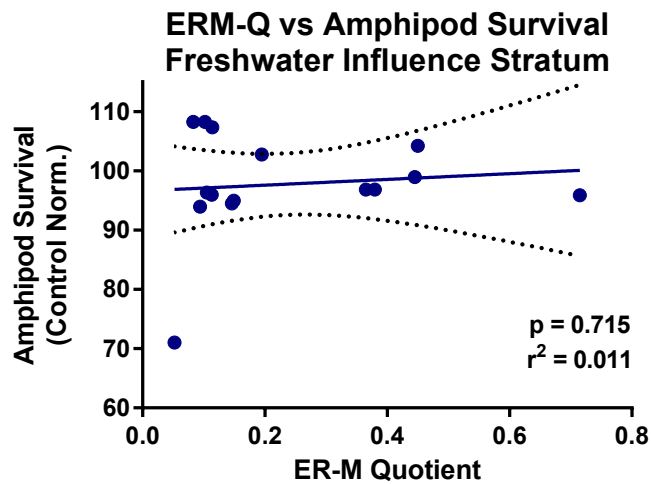
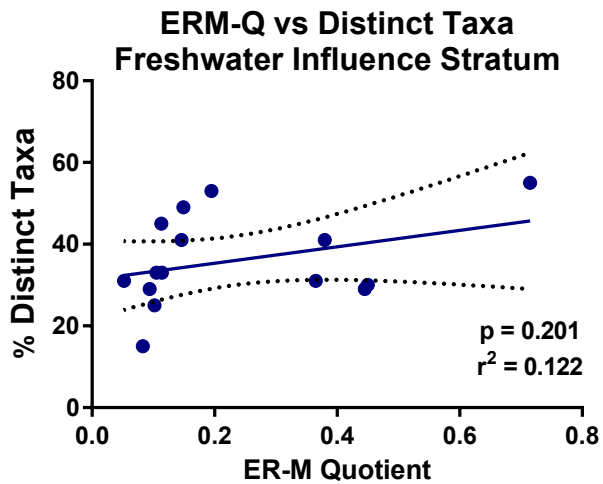
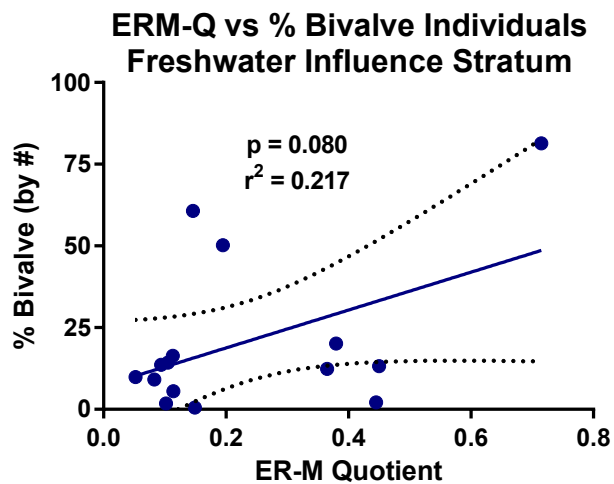
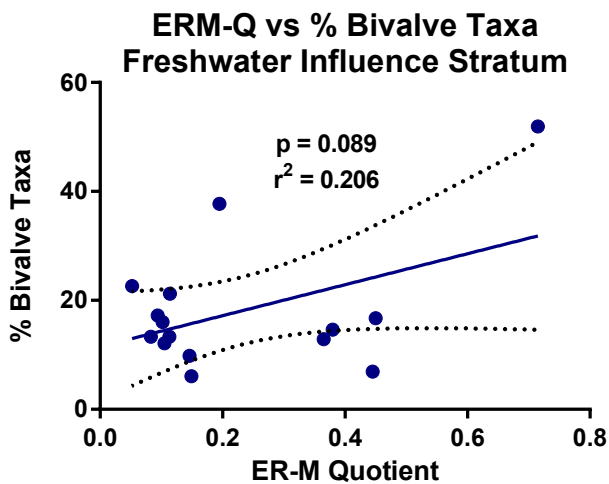
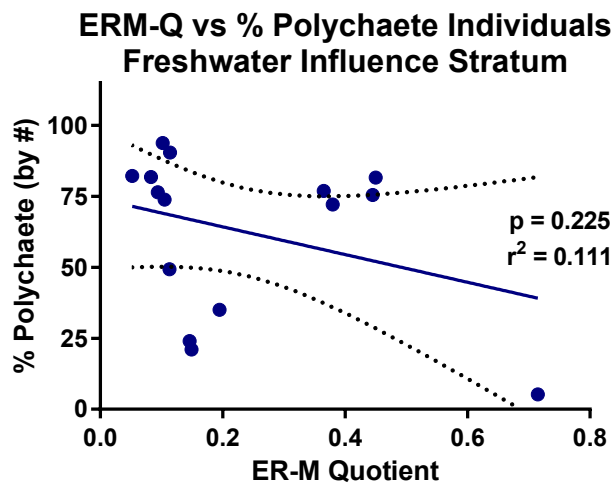
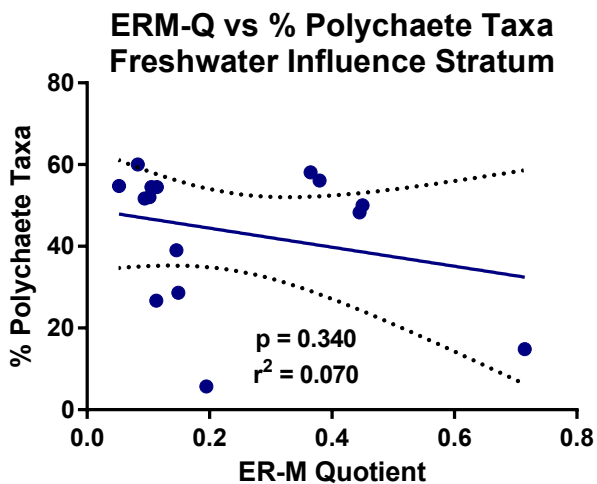


ERM-Q vs % Dominant Species
Freshwater Influence Stratum

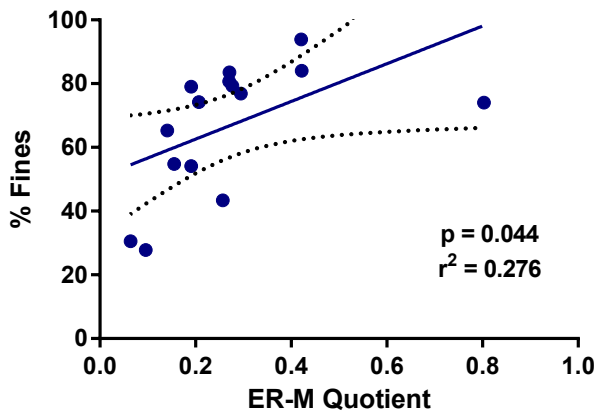


ERM-Q vs % Dominant Species - Top 3
Freshwater Influence Stratum

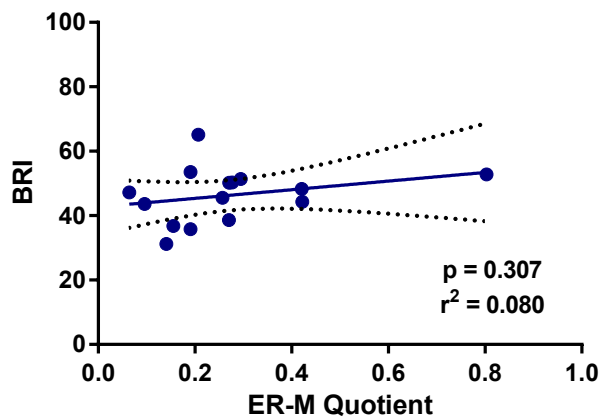




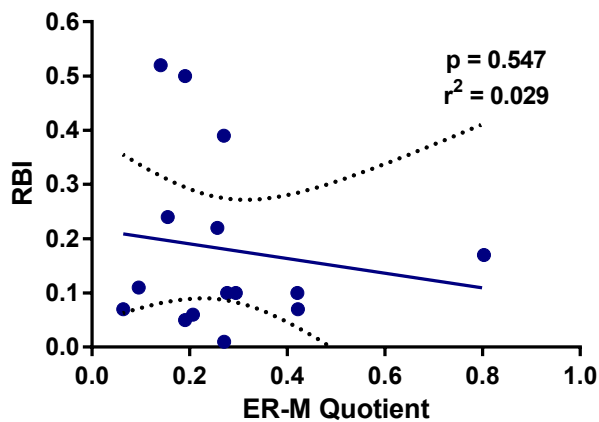
**ERM-Q vs Fines
Marinas**



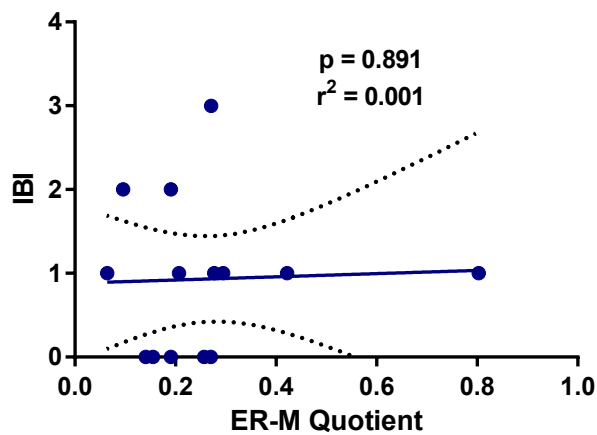
**ERM-Q vs BRI
Marinas**



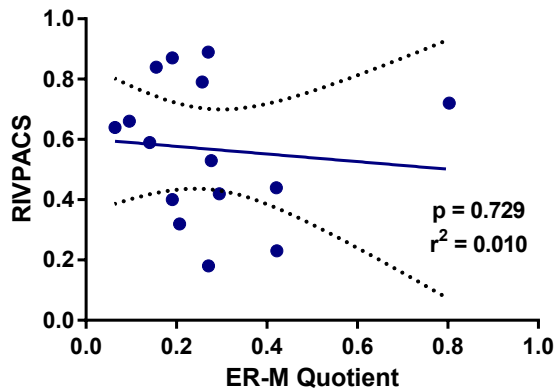
**ERM-Q vs RBI
Marinas**



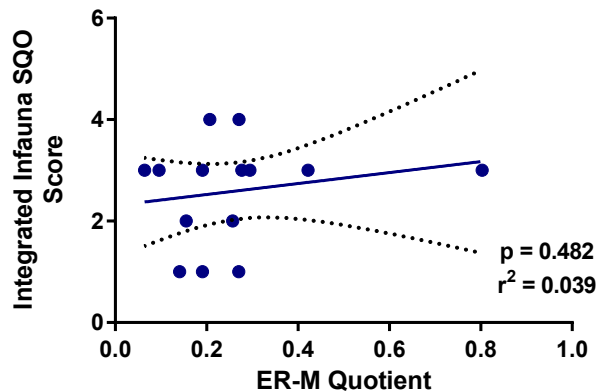
**ERM-Q vs IBI
Marinas**



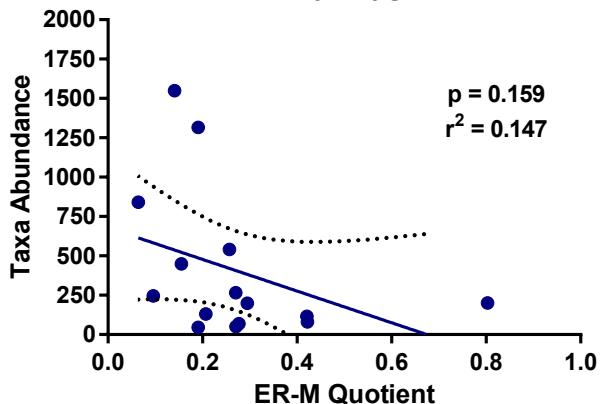
**ERM-Q vs RIVPACS
Marinas**



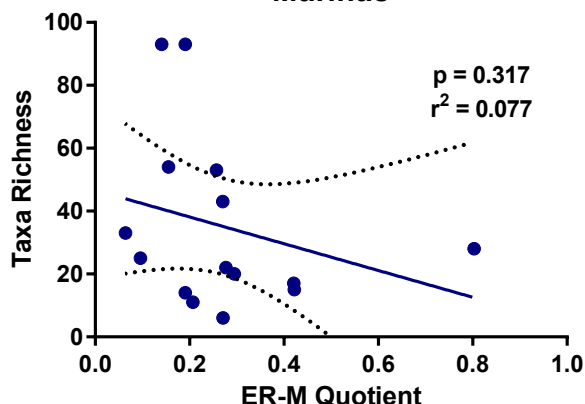
**ERM-Q vs Integrated Benthic SQO Score
Marinas**



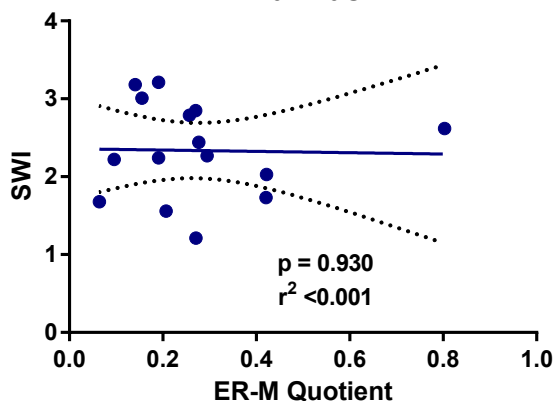
**ERM-Q vs Taxa Abundance
Marinas**



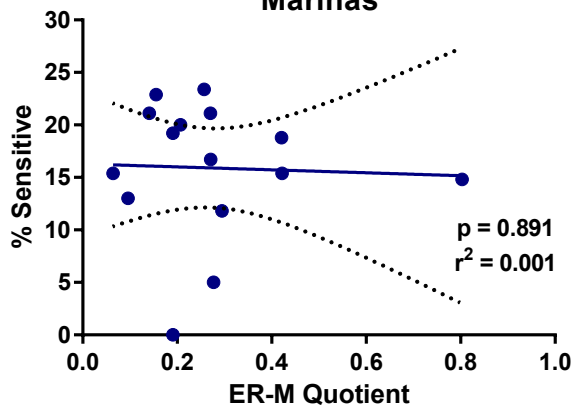
**ERM-Q vs Taxa Richness
Marinas**



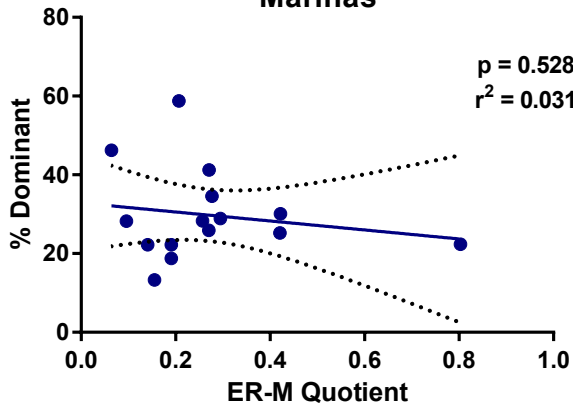
**ERM-Q vs Shannon Weiner Diversity Index
Marinas**



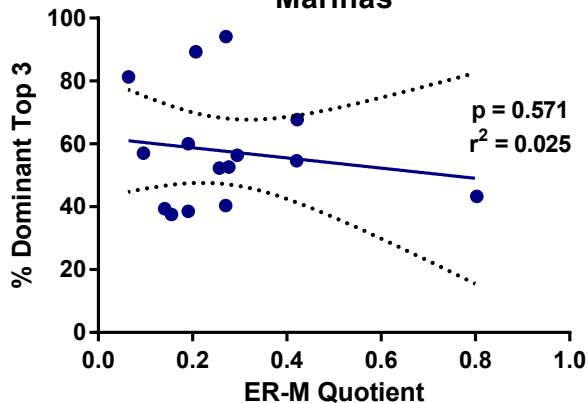
**ERM-Q vs % Sensitive Species
Marinas**



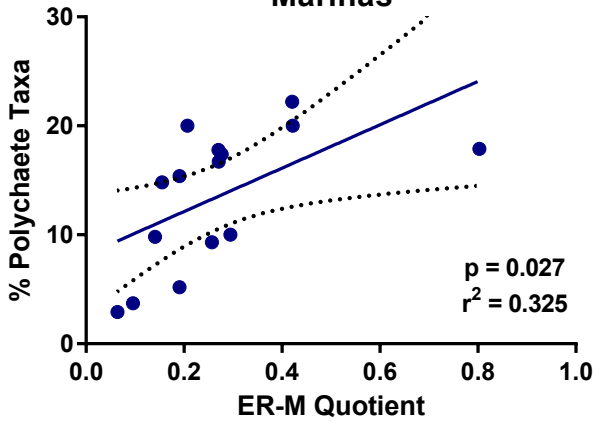
**ERM-Q vs % Dominant Species
Marinas**



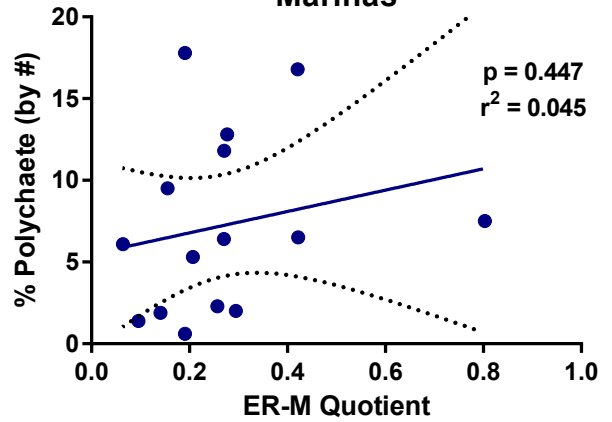
**ERM-Q vs % Dominant Species - Top 3
Marinas**



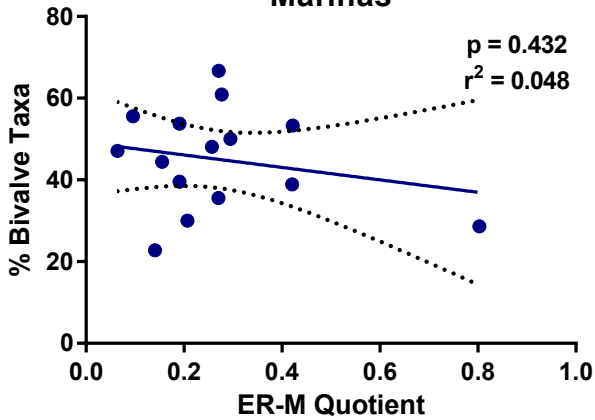
**ERM-Q vs % Polychaete Taxa
Marinas**



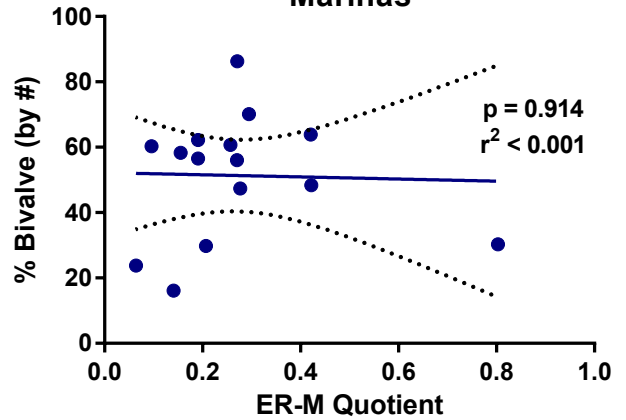
**ERM-Q vs % Polychaete Individuals
Marinas**



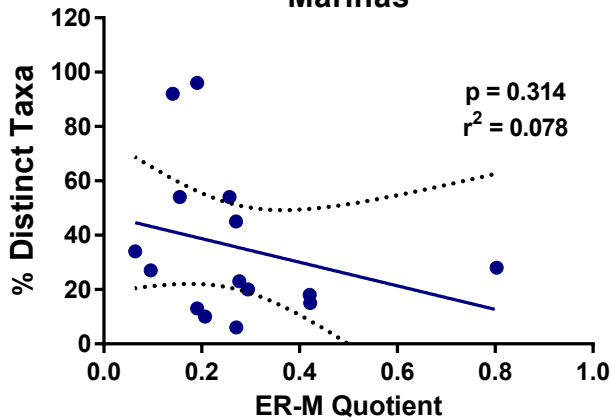
**ERM-Q vs % Bivalve Taxa
Marinas**



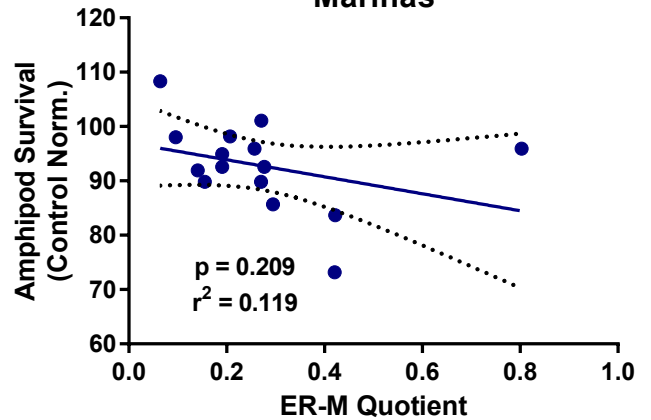
**ERM-Q vs % Bivalve Individuals
Marinas**



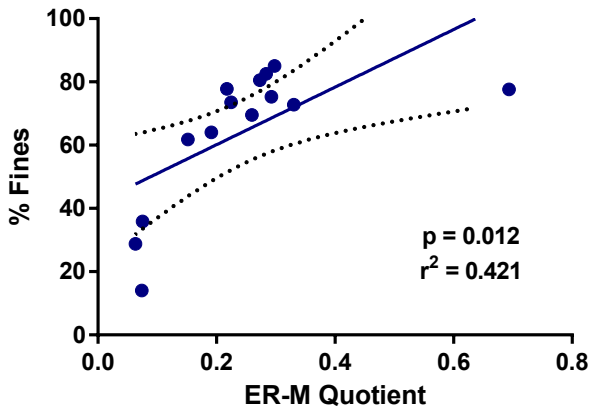
**ERM-Q vs Distinct Taxa
Marinas**



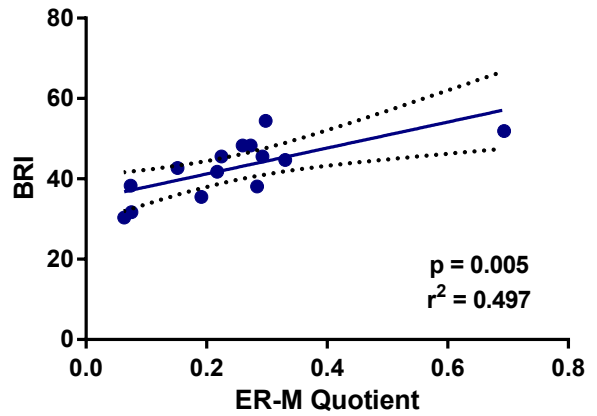
**ERM-Q vs Amphipod Survival
Marinas**



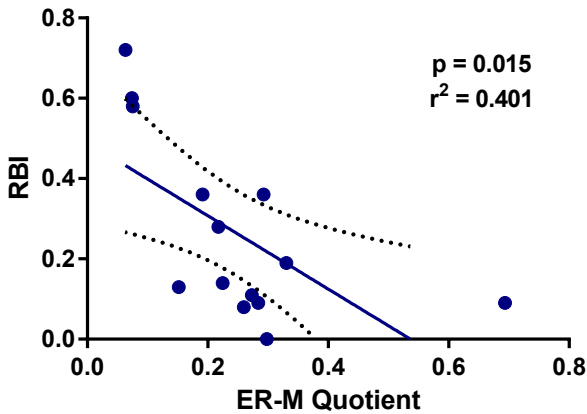
ERM-Q vs Fines
Industrial/Port Stratum



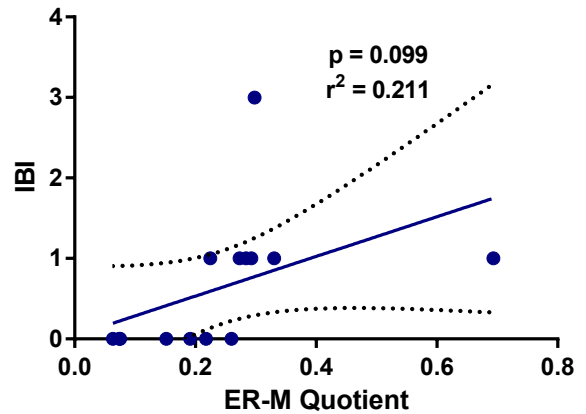
ERM-Q vs BRI
Industrial/Port Stratum



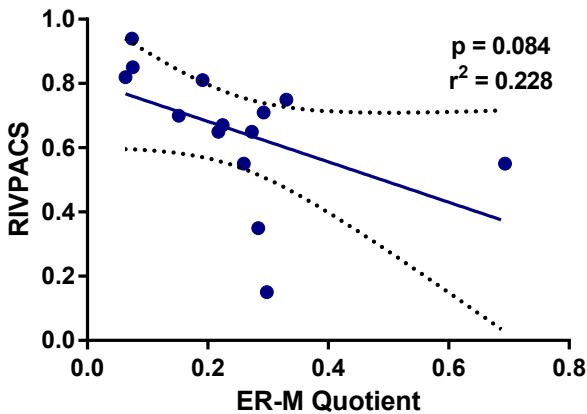
ERM-Q vs RBI
Industrial/Port Stratum



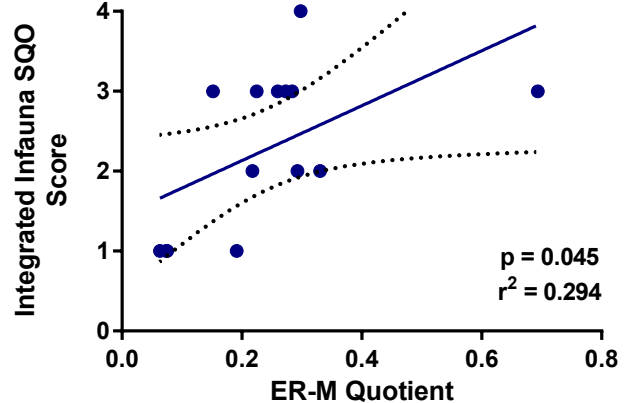
ERM-Q vs IBI
Industrial/Port Stratum



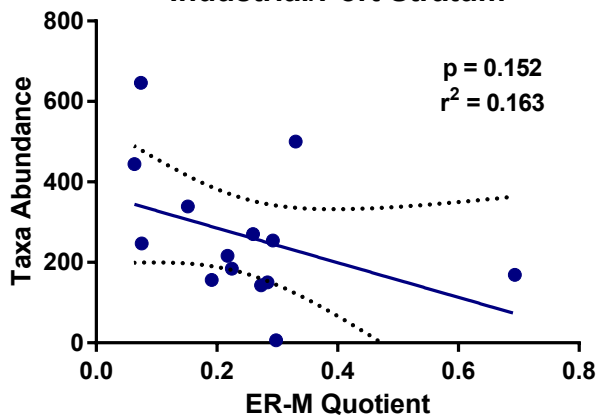
ERM-Q vs RIVPACS
Industrial/Port Stratum



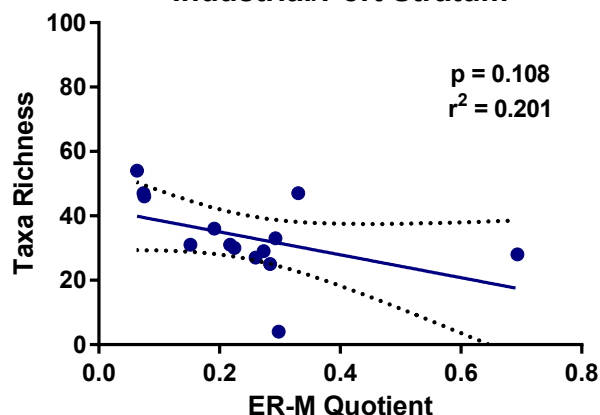
ERM-Q vs Integrated Benthic SQO Score
Industrial/Port Stratum



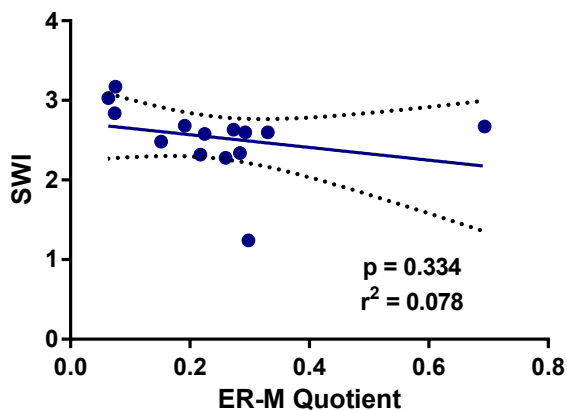
**ERM-Q vs Taxa Abundance
Industrial/Port Stratum**



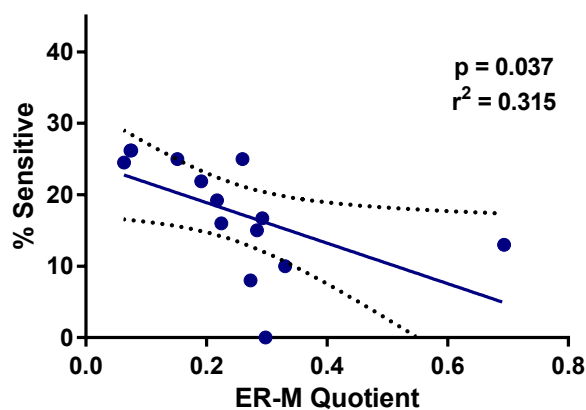
**ERM-Q vs Taxa Richness
Industrial/Port Stratum**



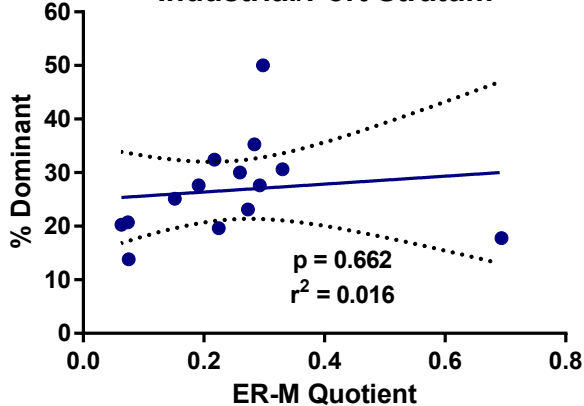
**ERM-Q vs Shannon Weiner Diversity Index
Industrial/Port Stratum**



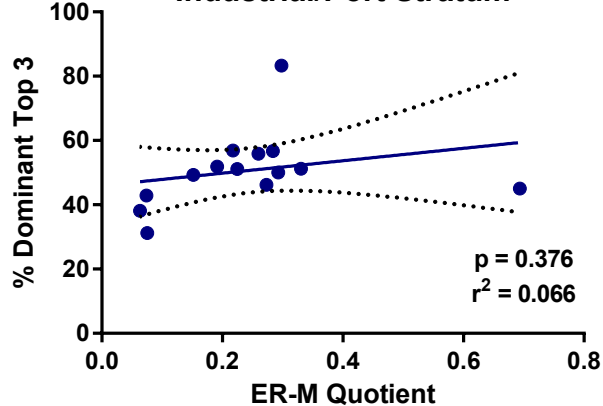
**ERM-Q vs % Sensitive Species
Industrial/Port Stratum**



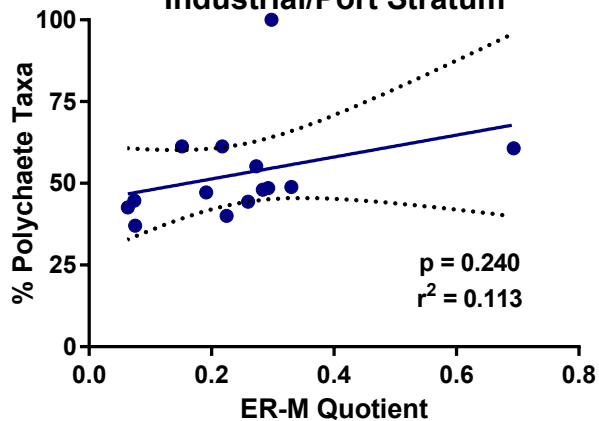
**ERM-Q vs % Dominant Species
Industrial/Port Stratum**



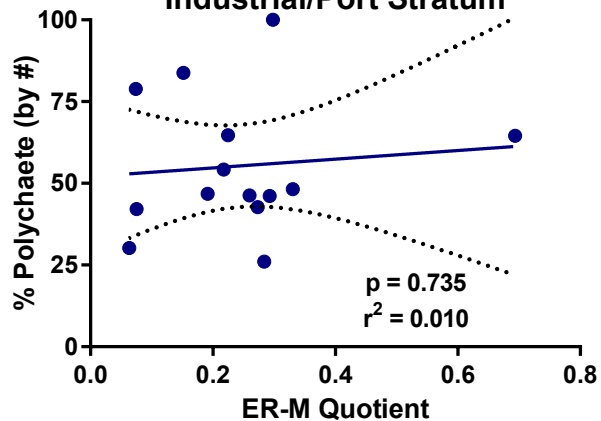
**ERM-Q vs % Dominant Species - Top 3
Industrial/Port Stratum**



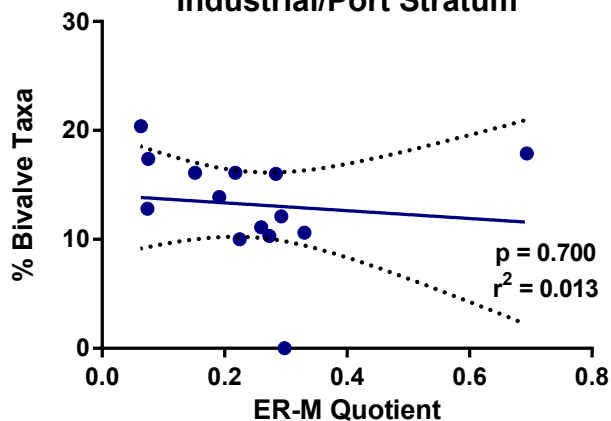
**ERM-Q vs % Polychaete Taxa
Industrial/Port Stratum**



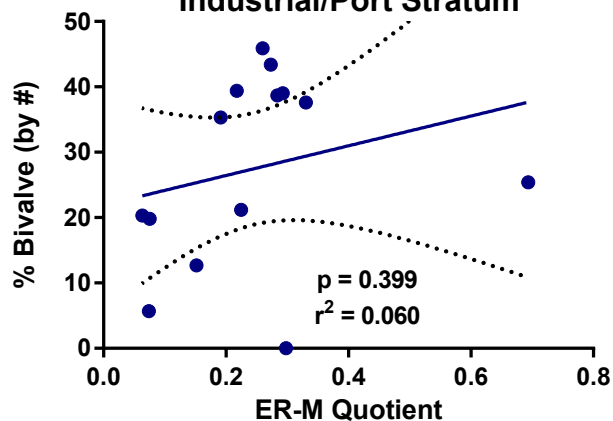
**ERM-Q vs % Polychaete Individuals
Industrial/Port Stratum**



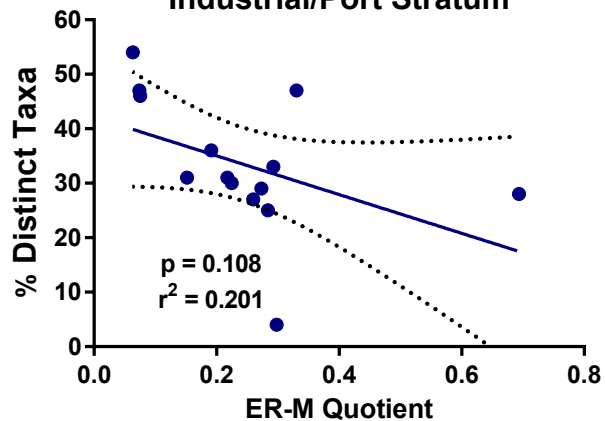
**ERM-Q vs % Bivalve Taxa
Industrial/Port Stratum**



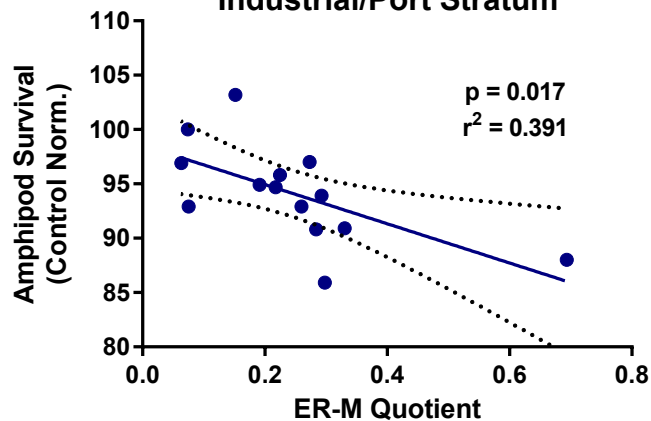
**ERM-Q vs % Bivalve Individuals
Industrial/Port Stratum**



**ERM-Q vs Distinct Taxa
Industrial/Port Stratum**

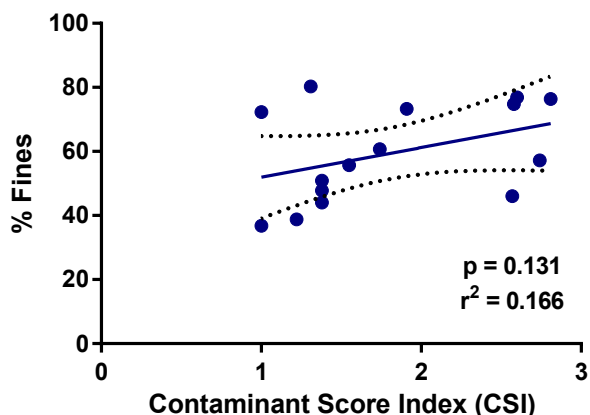


**ERM-Q vs Amphipod Survival
Industrial/Port Stratum**

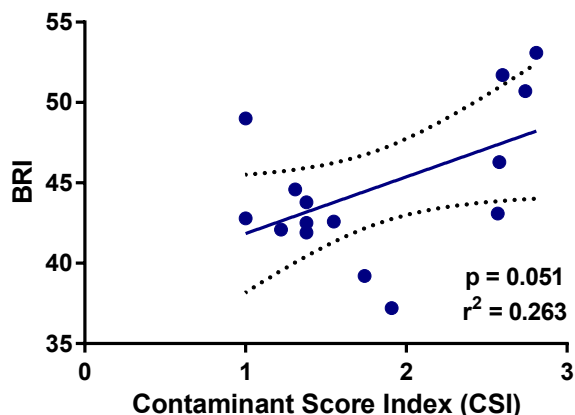


CSI

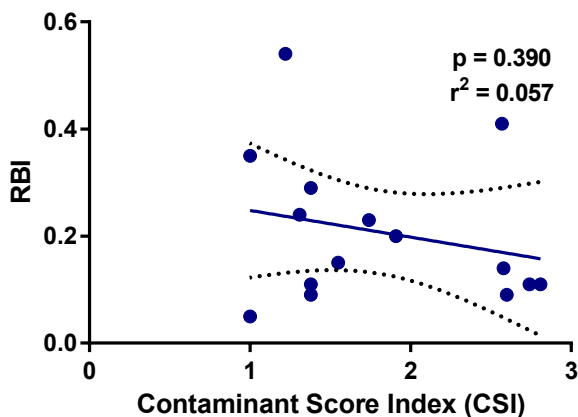
CSI vs Fines
Freshwater Influence Stratum



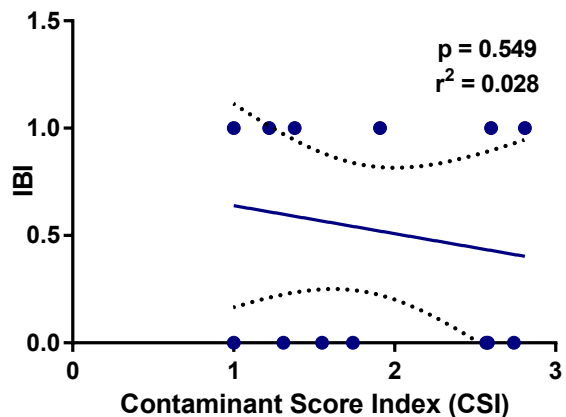
CSI vs BRI
Freshwater Influence Stratum



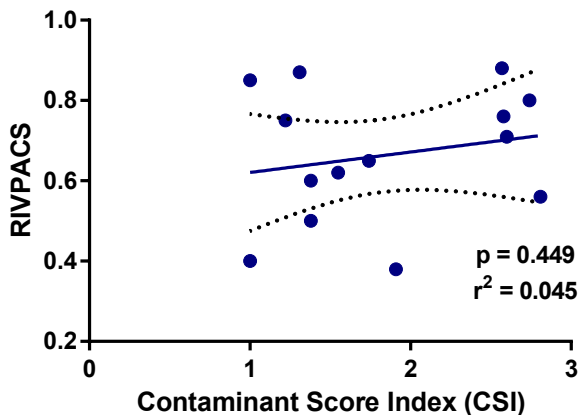
CSI vs RBI
Freshwater Influence Stratum



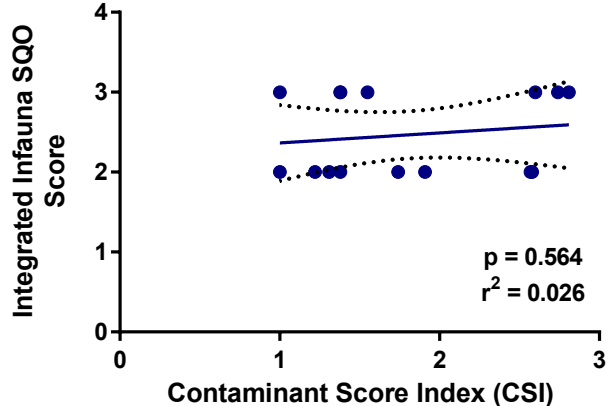
CSI vs IBI
Freshwater Influence Stratum



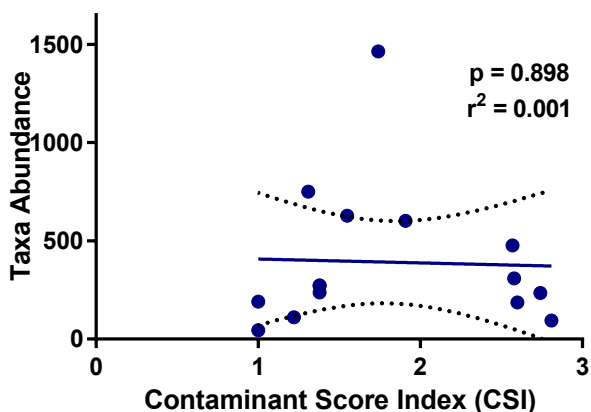
CSI vs RIVPACS
Freshwater Influence Stratum



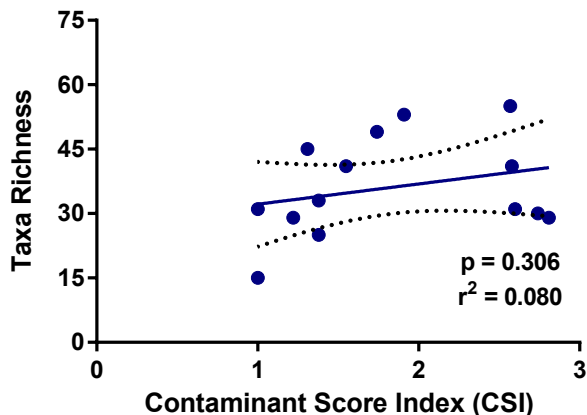
CSI vs Integrated Benthic SQO Score
Freshwater Influence Stratum



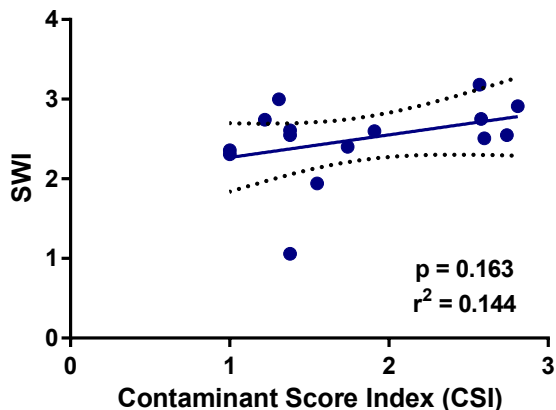
CSI vs Taxa Abundance
Freshwater Influence Stratum



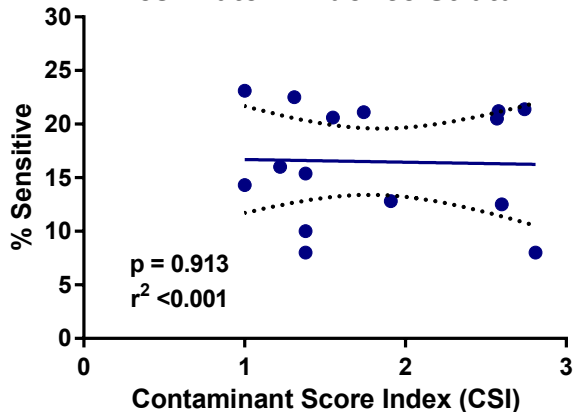
CSI vs Taxa Richness
Freshwater Influence Stratum



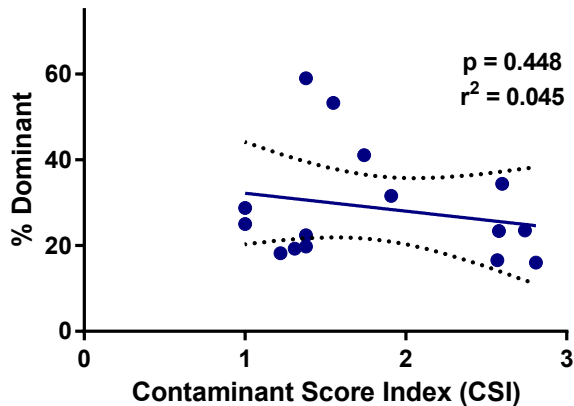
CSI vs Shannon Weiner Diversity Index
Freshwater Influence Stratum



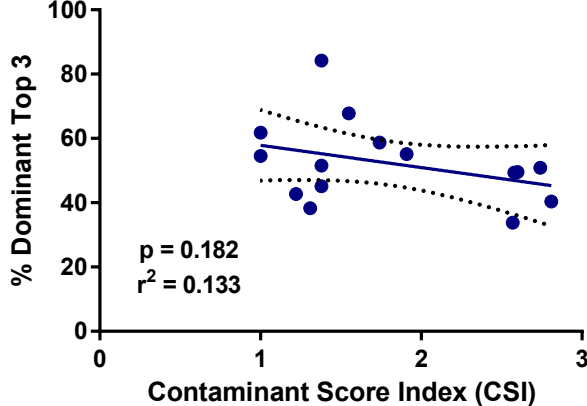
CSI vs % Sensitive Species
Freshwater Influence Stratum

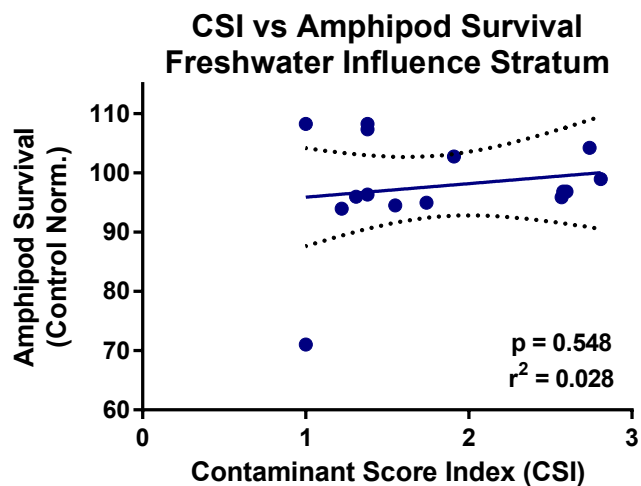
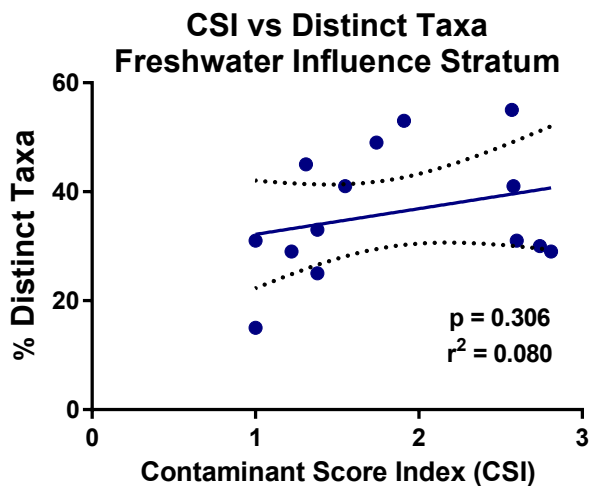
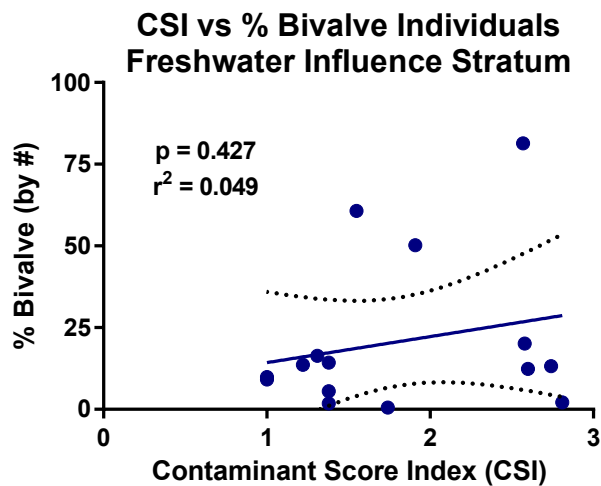
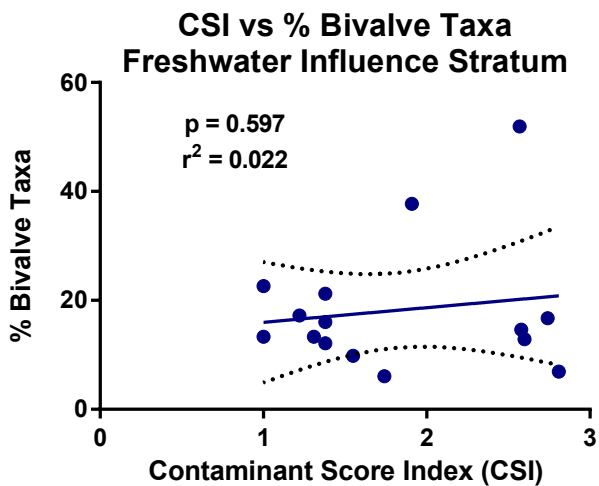
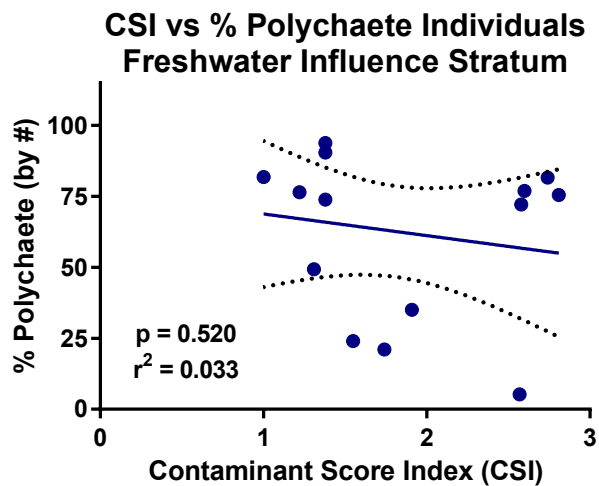
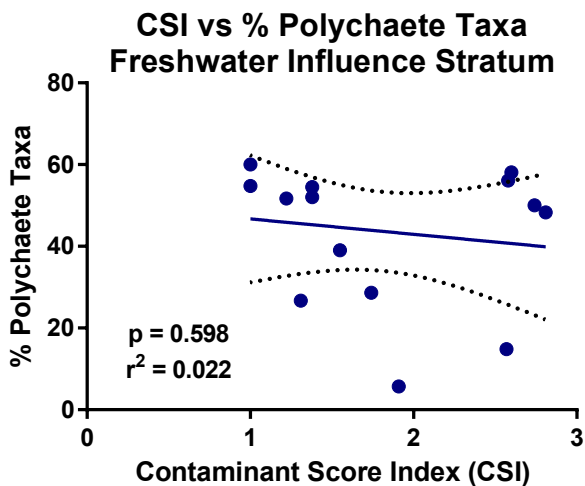


CSI vs % Dominant Species
Freshwater Influence Stratum

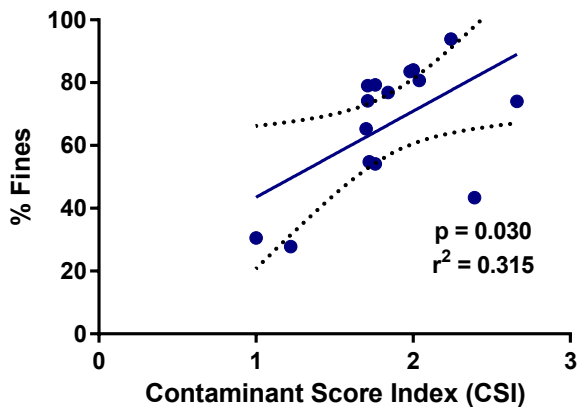


CSI vs % Dominant Species - Top 3
Freshwater Influence Stratum

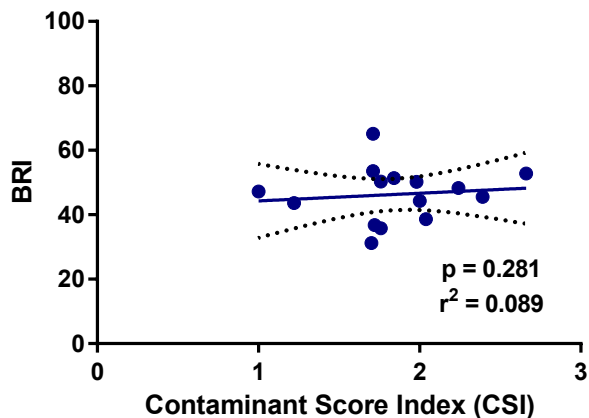




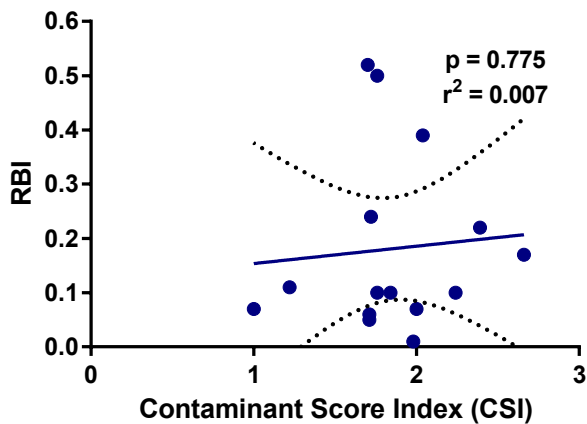
**CSI vs % Fines
Marinas**



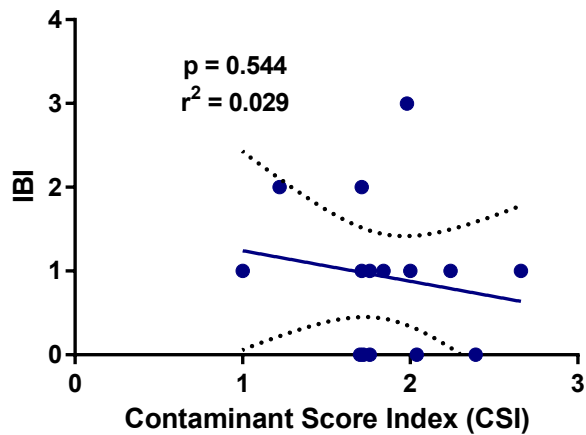
**CSI vs BRI
Marinas**



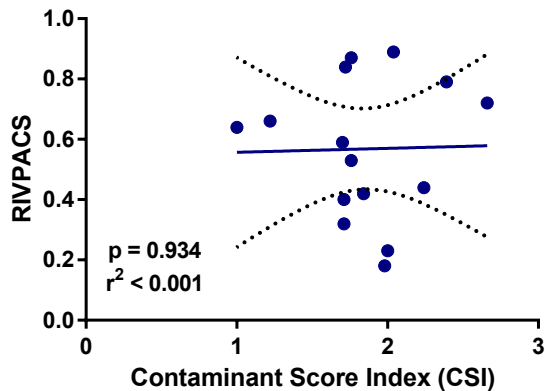
**CSI vs RBI
Marinas**



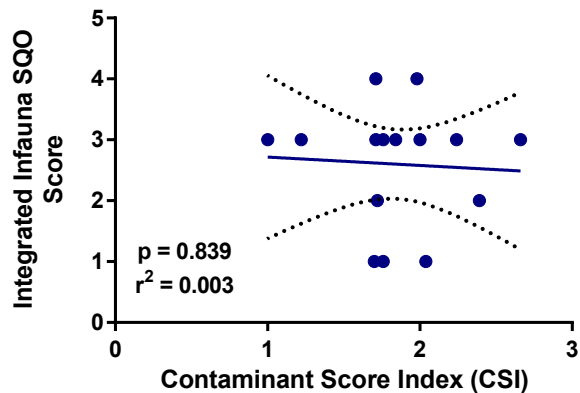
**CSI vs IBI
Marinas**



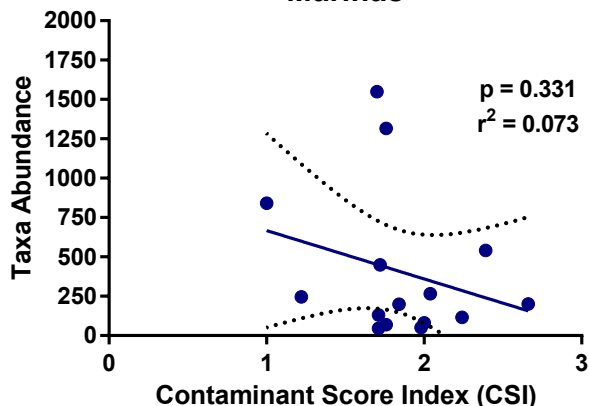
**CSI vs RIVPACS
Marinas**



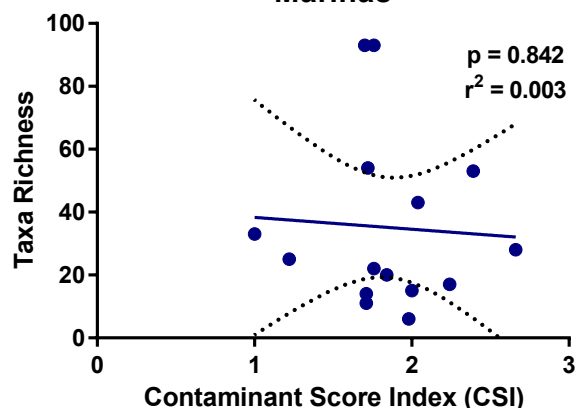
**CSI vs Integrated Benthic SQO Score
Marinas**



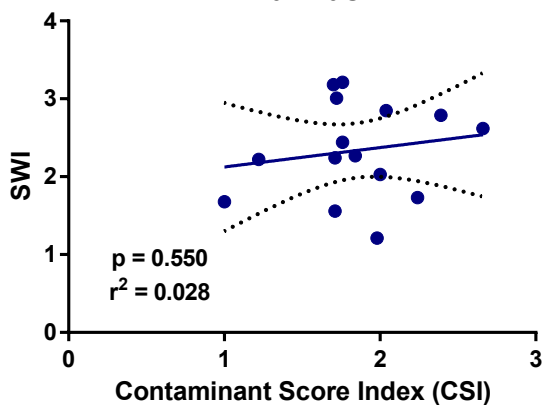
**CSI vs Taxa Abundance
Marinas**



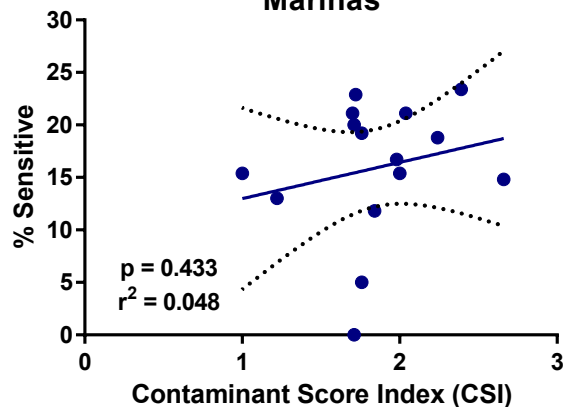
**CSI vs Taxa Richness
Marinas**



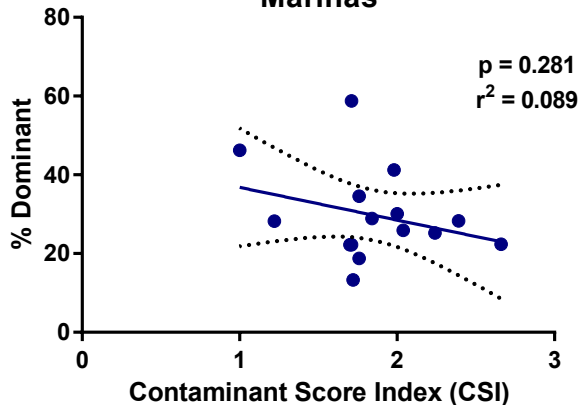
**CSI vs Shannon Weiner Diversity Index
Marinas**



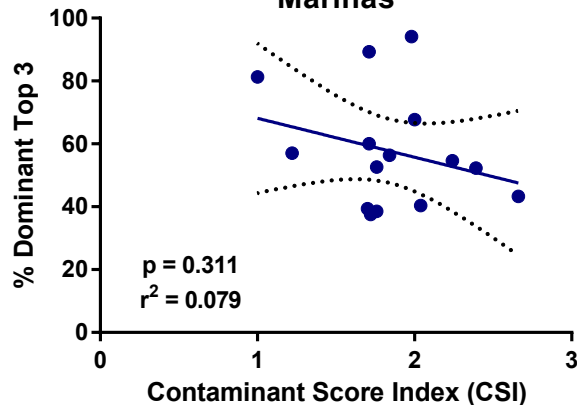
**CSI vs % Sensitive Species
Marinas**



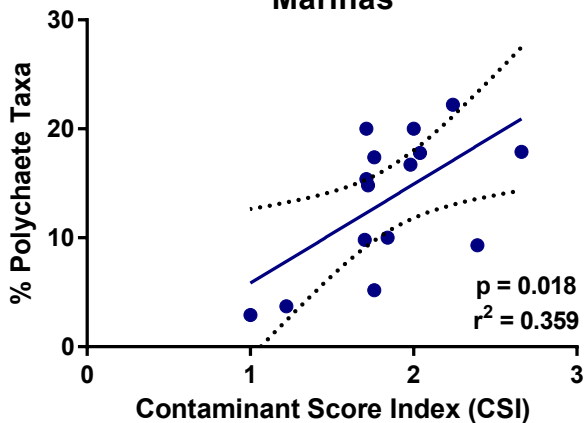
**CSI vs % Dominant Species
Marinas**



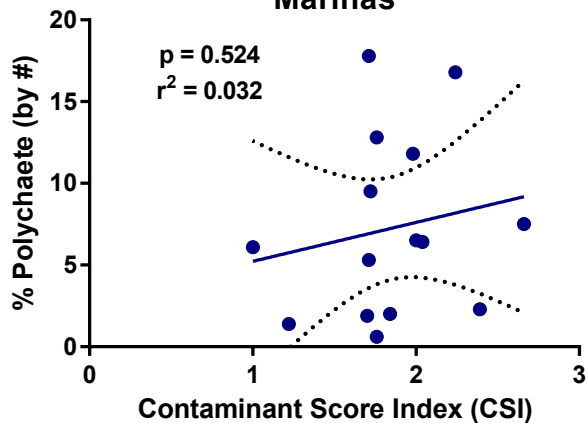
**CSI vs % Dominant Species - Top 3
Marinas**



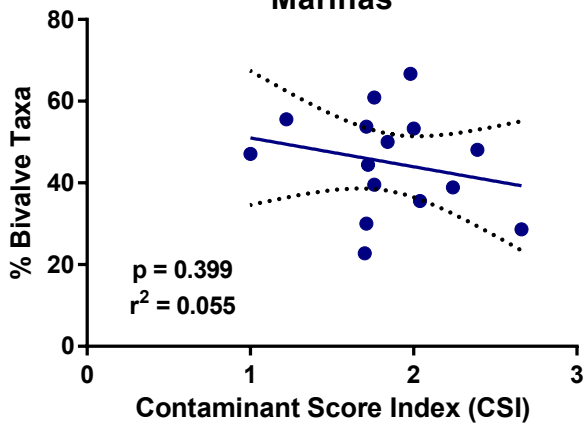
**CSI vs % Polychaete Taxa
Marinas**



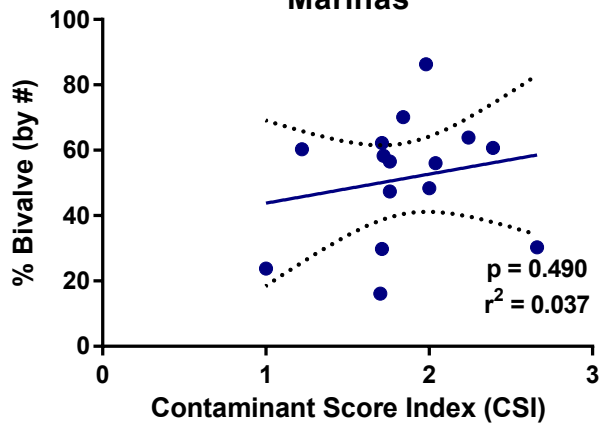
**CSI vs % Polychaete Individuals
Marinas**



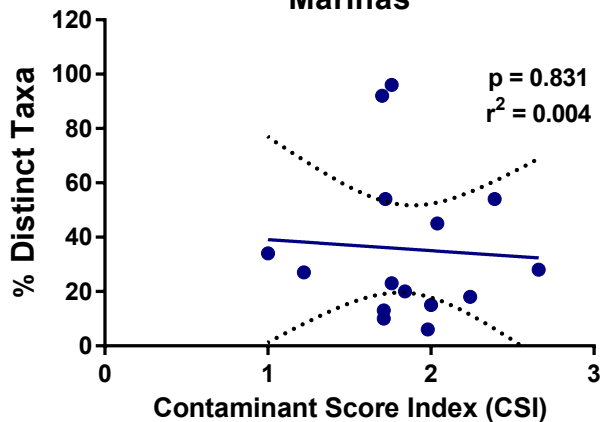
**CSI vs % Bivalve Taxa
Marinas**



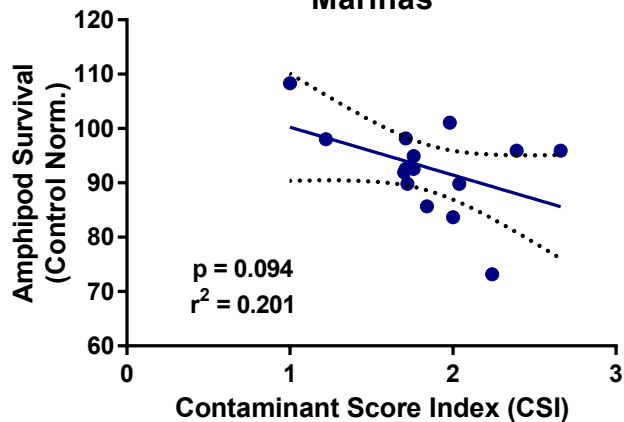
**CSI vs % Bivalve Individuals
Marinas**



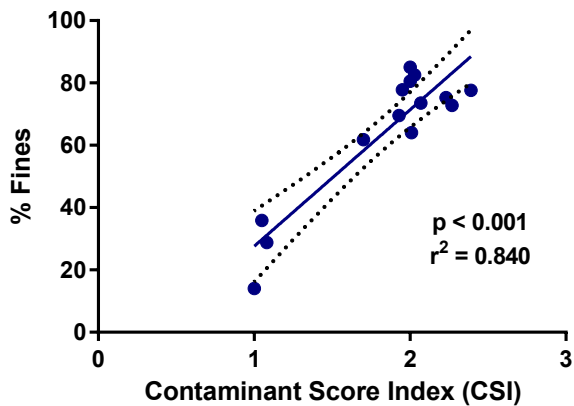
**CSI vs Distinct Taxa
Marinas**



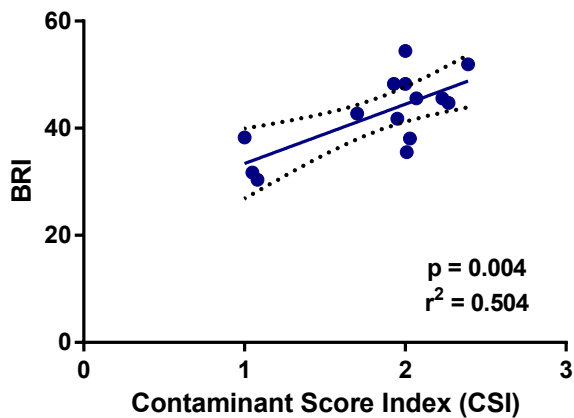
**CSI vs Amphipod Survival
Marinas**



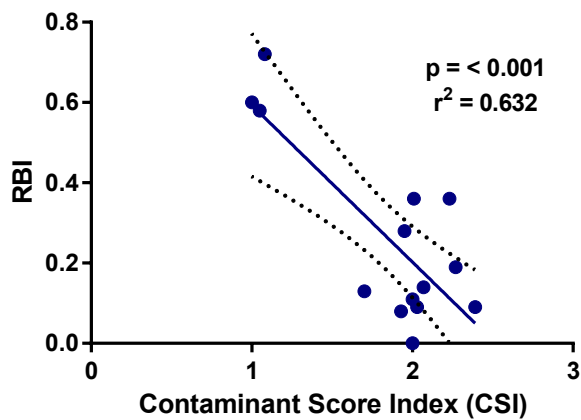
CSI vs Fines
Industrial/Port Stratum



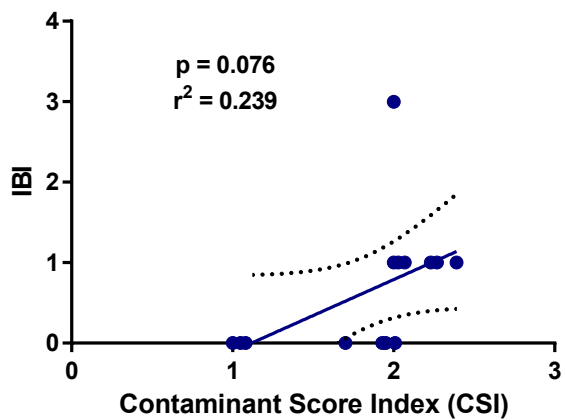
CSI vs BRI
Industrial/Port Stratum



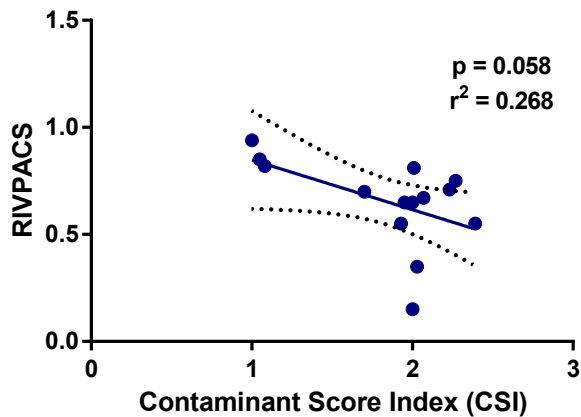
CSI vs RBI
Industrial/Port Stratum



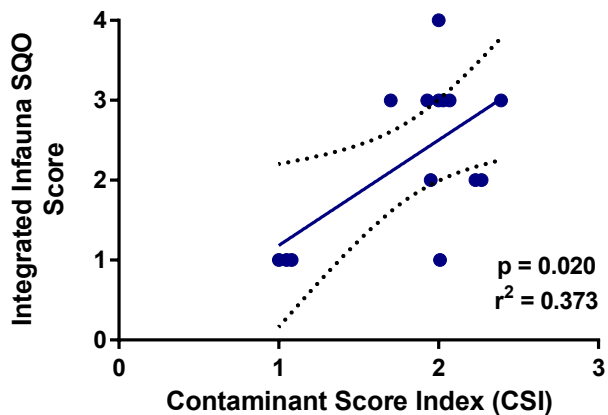
CSI vs IBI
Industrial/Port Stratum



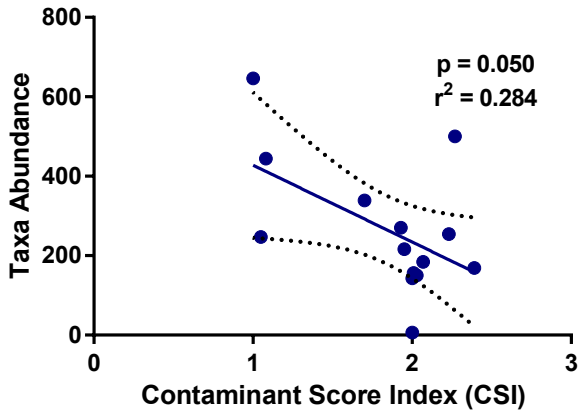
CSI vs RIVPACS
Industrial/Port Stratum



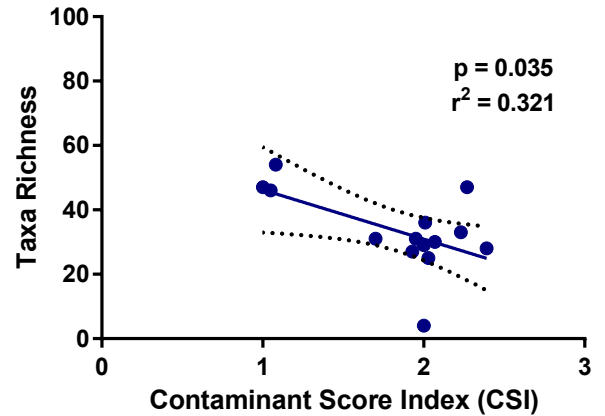
CSI vs Integrated Benthic SQO Score
Industrial/Port Stratum



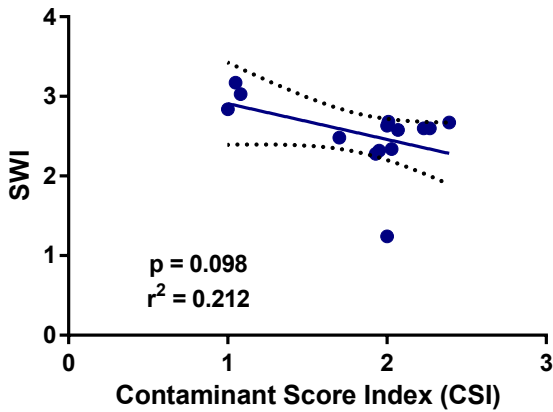
CSI vs Taxa Abundance
Industrial/Port Stratum



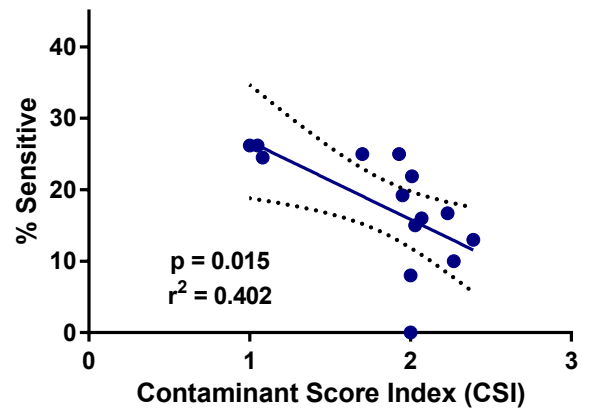
CSI vs Taxa Richness
Industrial/Port Stratum



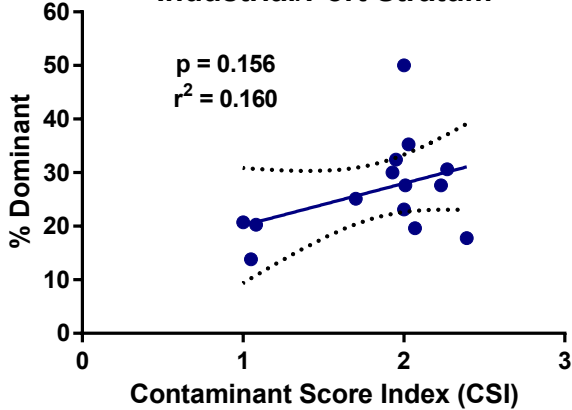
CSI vs Shannon Weiner Diversity Index
Industrial/Port Stratum



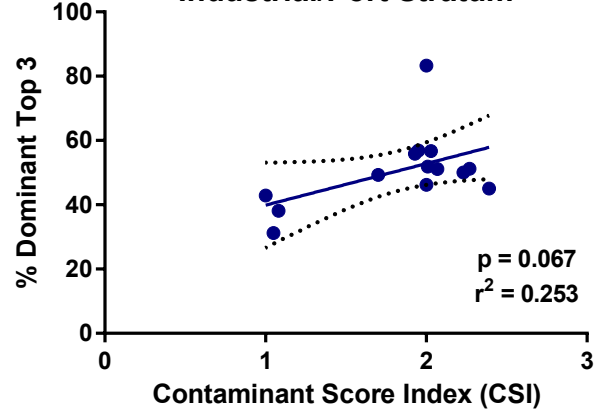
CSI vs % Sensitive Species
Industrial/Port Stratum



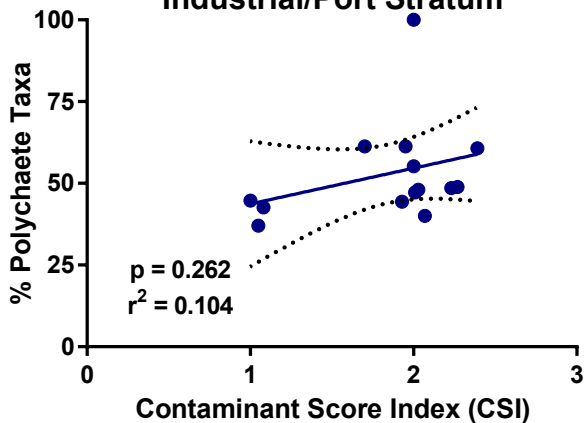
CSI vs % Dominant Species
Industrial/Port Stratum



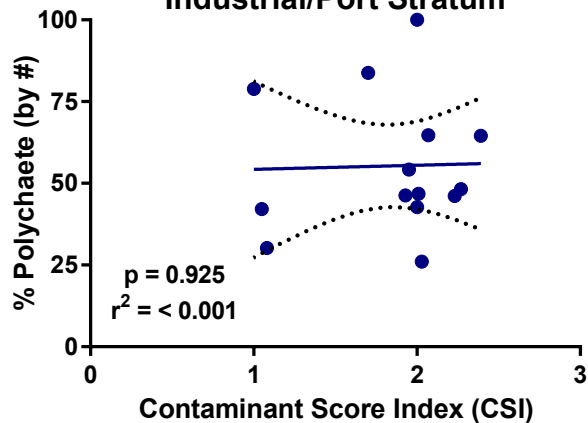
CSI vs % Dominant Species - Top 3
Industrial/Port Stratum



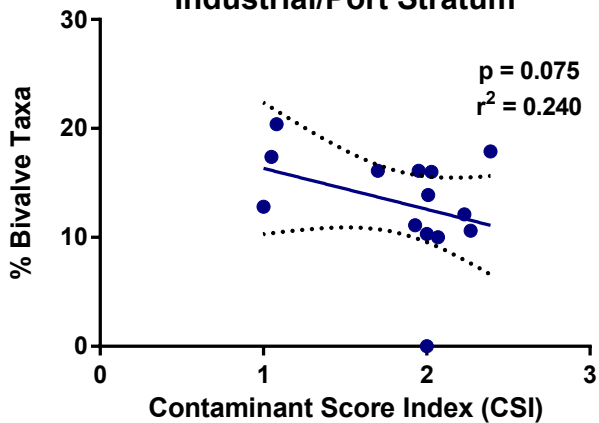
**CSI vs % Polychaete Taxa
Industrial/Port Stratum**



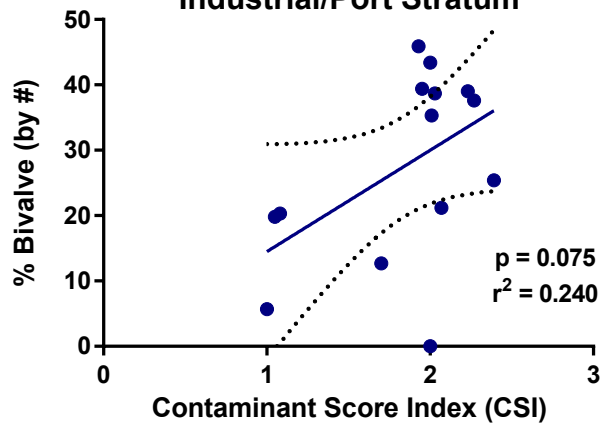
**CSI vs % Polychaete Individuals
Industrial/Port Stratum**



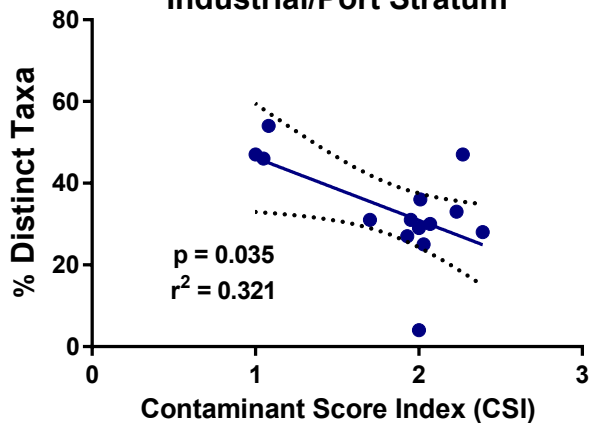
**CSI vs % Bivalve Taxa
Industrial/Port Stratum**



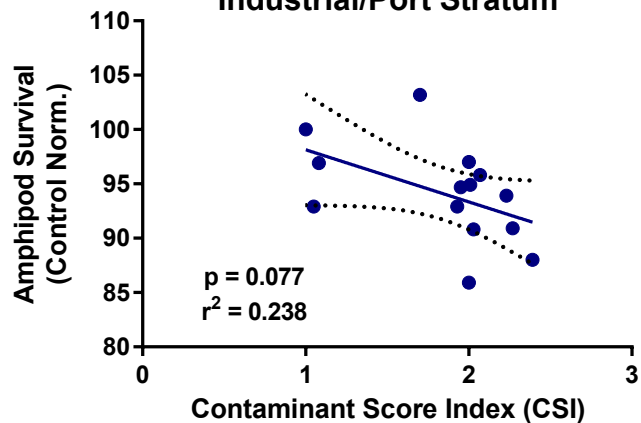
**CSI vs % Bivalve Individuals
Industrial/Port Stratum**



**CSI vs Distinct Taxa
Industrial/Port Stratum**



**CSI vs Amphipod Survival
Industrial/Port Stratum**



Historic Comparisons

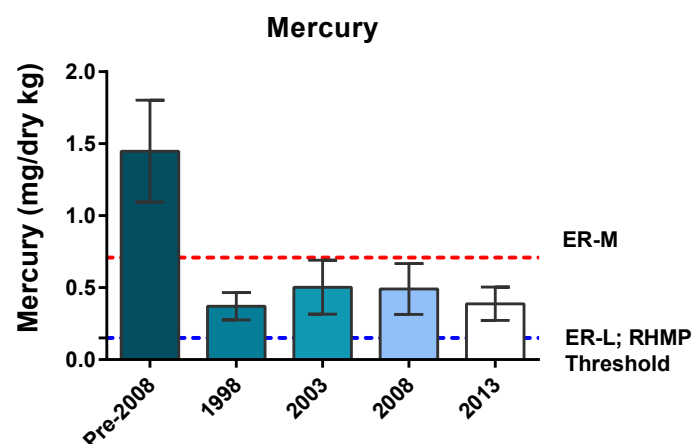
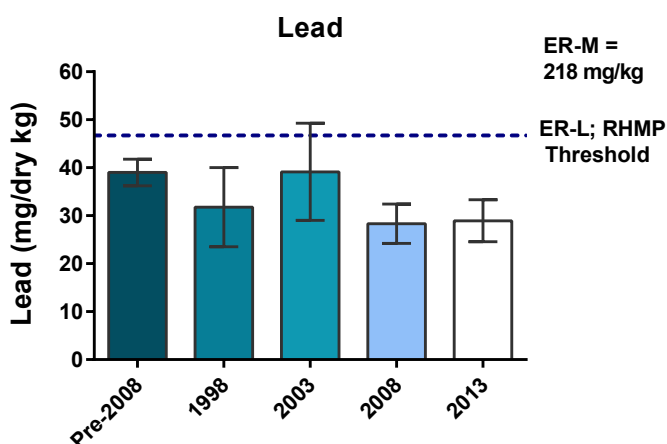
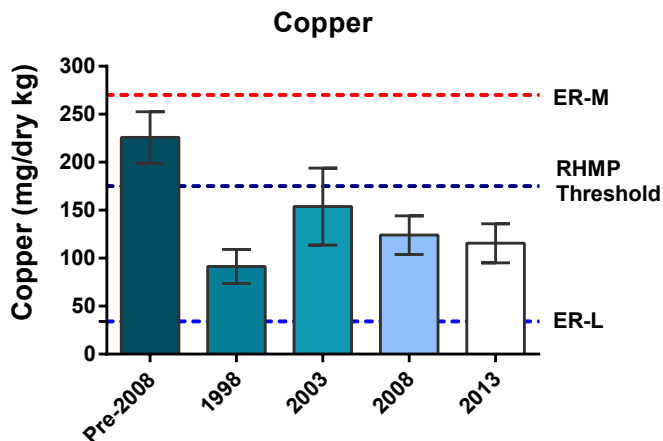
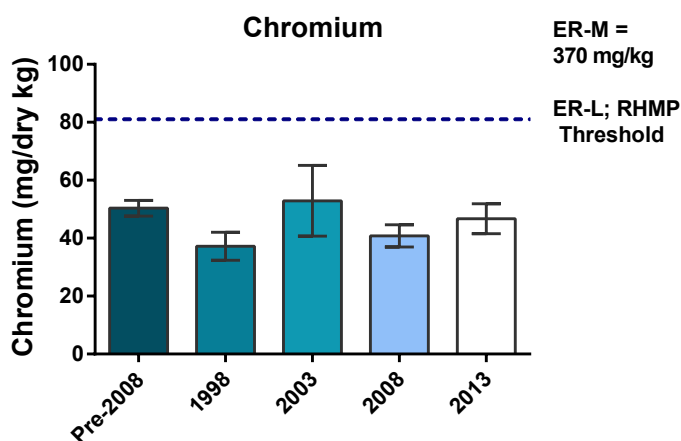
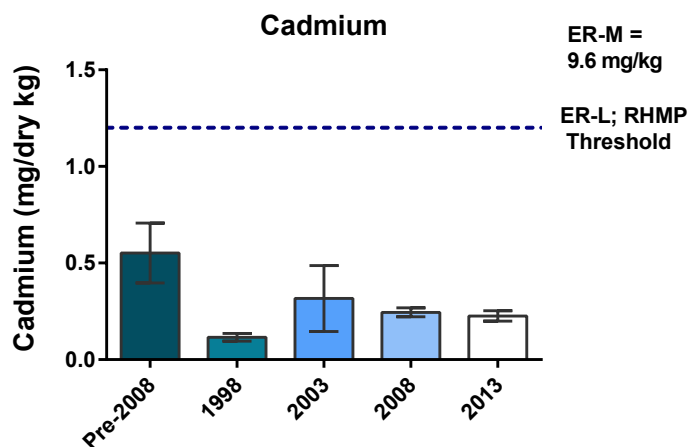
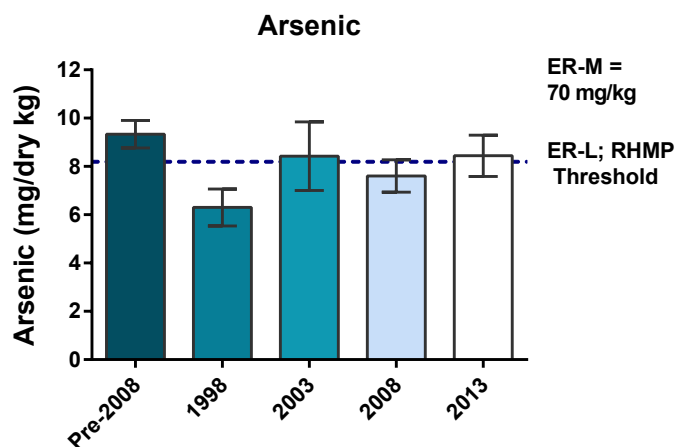
All Data Combined

Bar Charts

Historical Sediment Chemistry Comparisons

RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

***All Data Combined**



Notes:

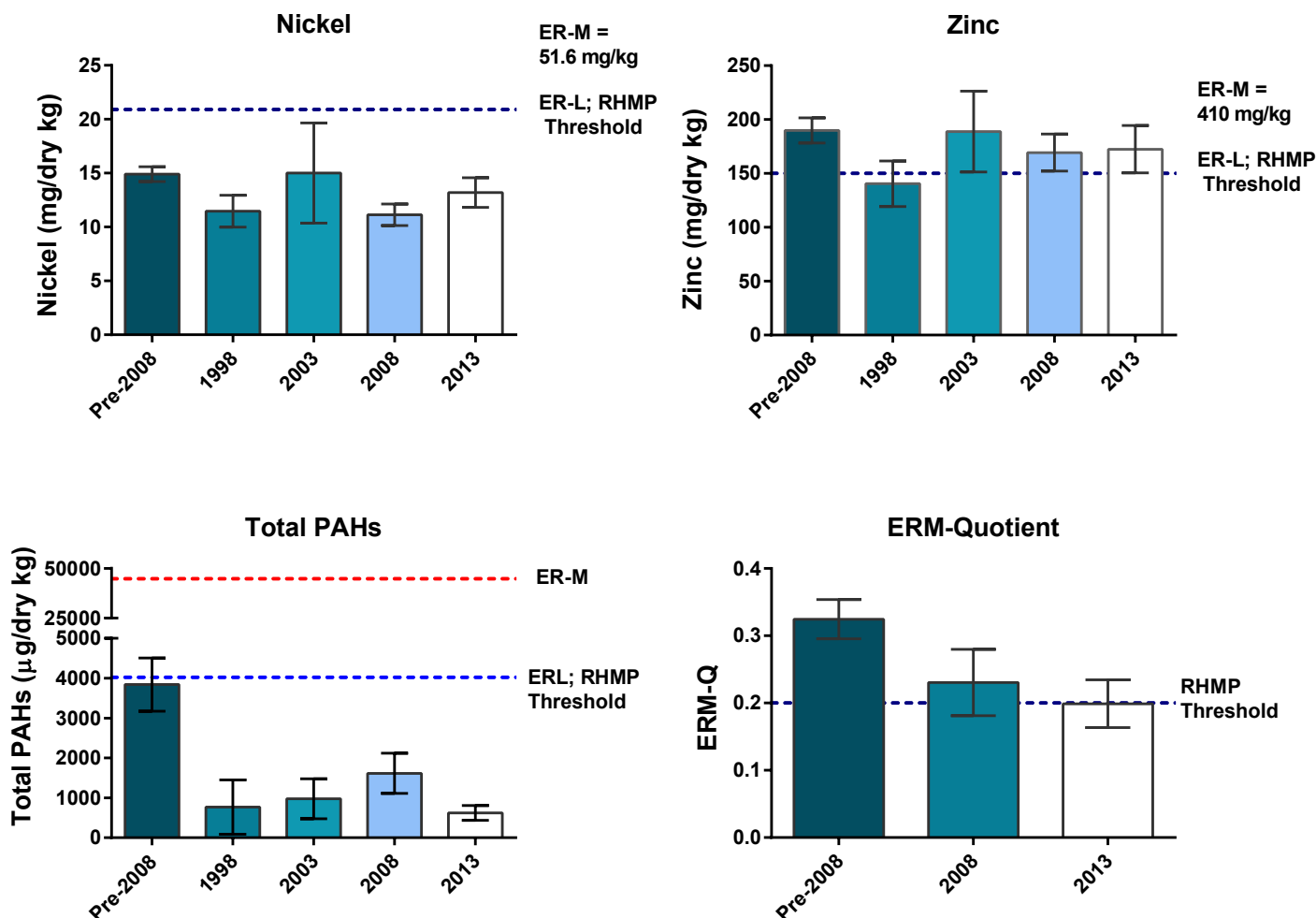
1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.

2) Mean values and 95% confidence intervals are displayed.
n= 532 (pre-2008), 48 (1998), 33 (2003), and 75 (2008 and 2013)

Historical Sediment Chemistry Comparisons

RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

***All Data Combined**



Notes:

1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.

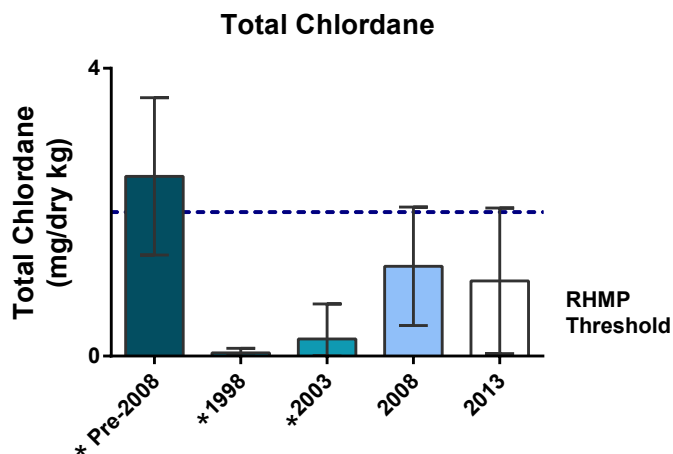
2) Mean values and 95% confidence intervals are displayed.
n= 532 (pre-2008), 48 (1998), 33 (2003), and 75 (2008 and 2013)

3) ERM-Quotients not readily available for Bight 1998 and 2003 datasets.

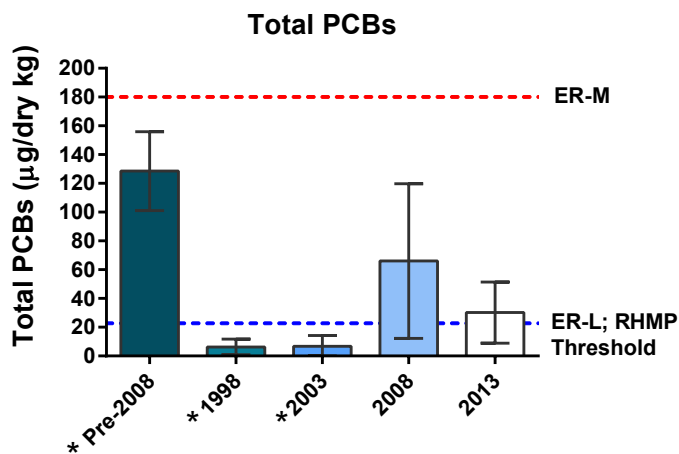
Historical Sediment Chemistry Comparisons

RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

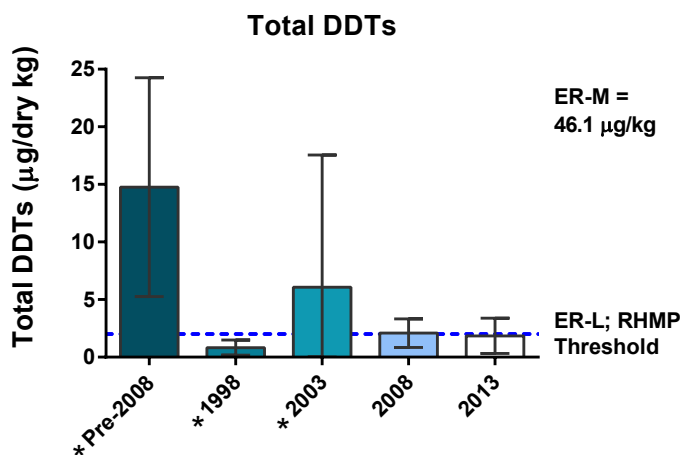
***All Data Combined**



* Chlordane reporting limits for Bight 1998 and 2003 ranged from 0.14 to 6.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.05 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.



* PCB reporting limits for Bight 1998 and 2003 ranged from 0.03 to 3.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.1 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.



* DDT reporting limits for Bight 1998 and 2003 ranged from 0.1 to 11.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.05 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.

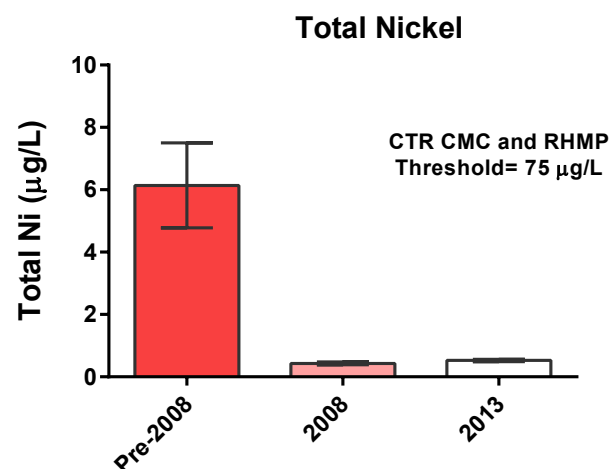
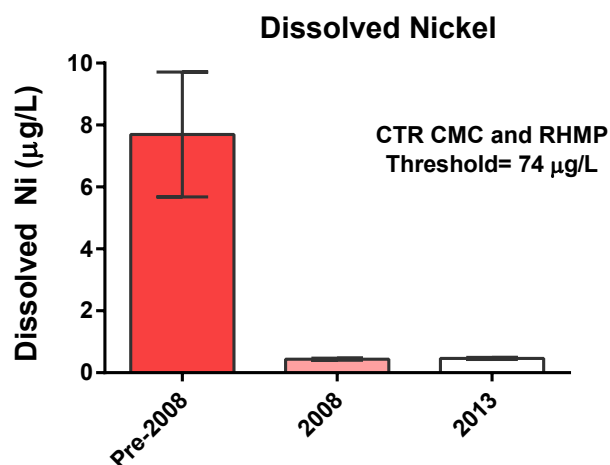
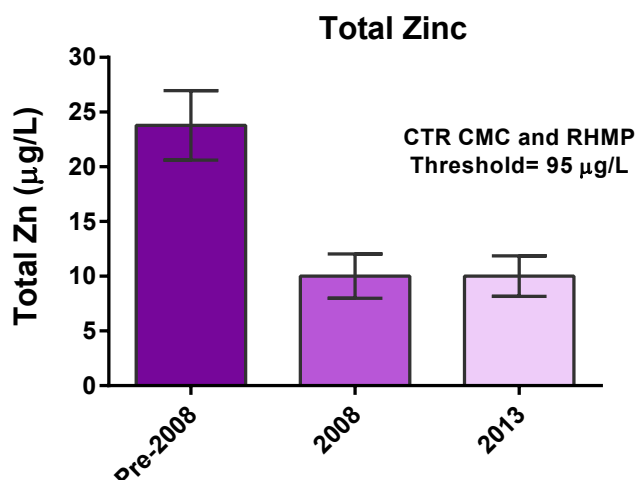
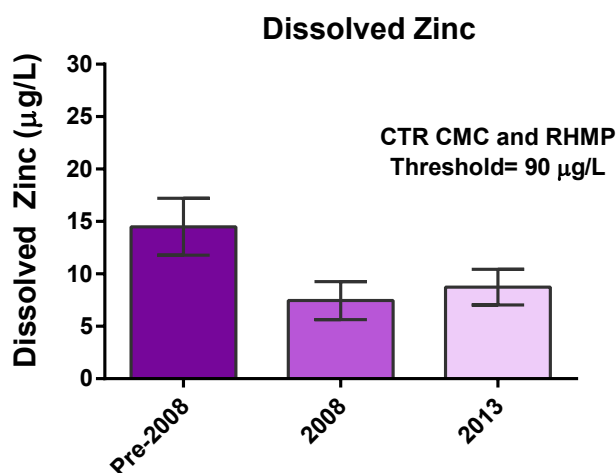
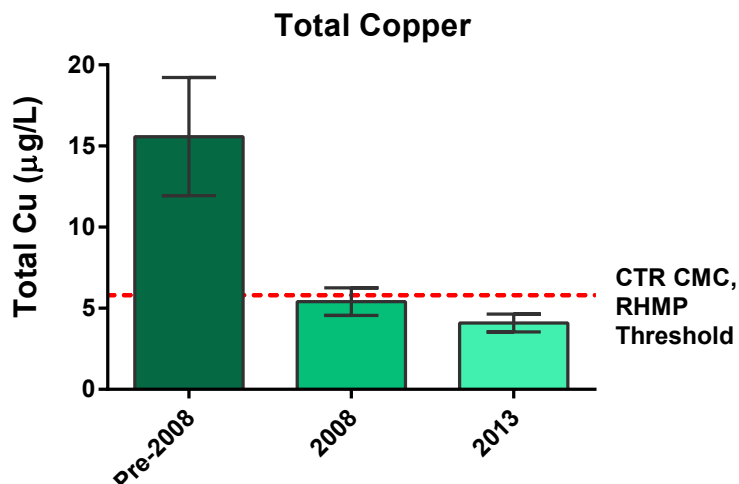
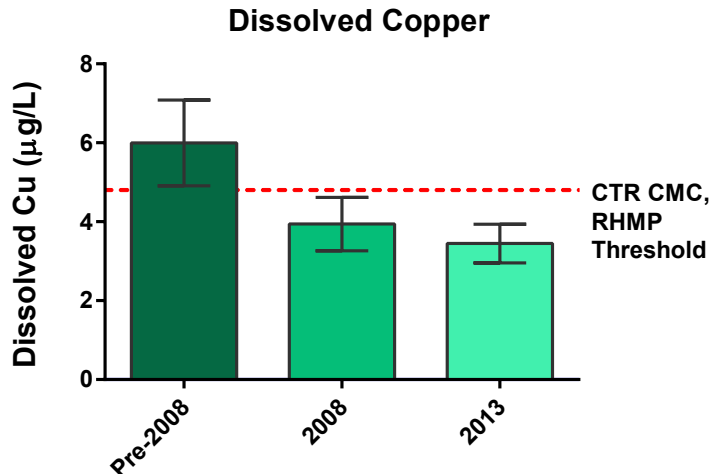
Notes:

- 1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.
- 2) Mean values and 95% confidence intervals are displayed. Concentrations below the detection limit are included as a value of zero.
n= 532 (pre-2008), 48 (1998), 33 (2003), and 75 (2008 and 2013)

Historical Water Chemistry Comparisons

RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

All Data Combined

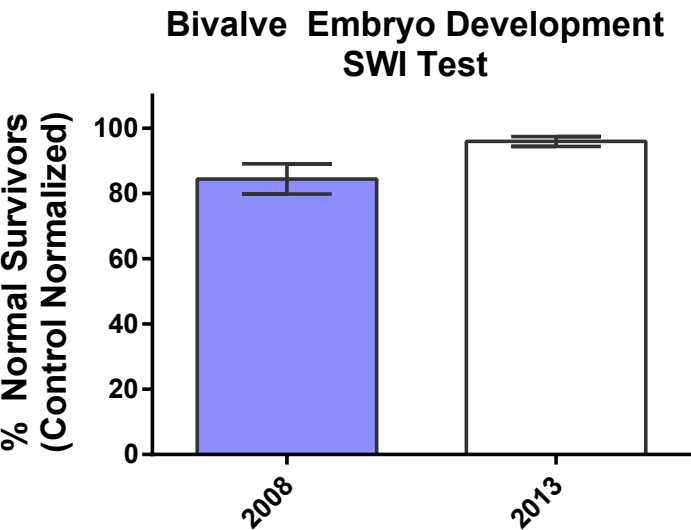
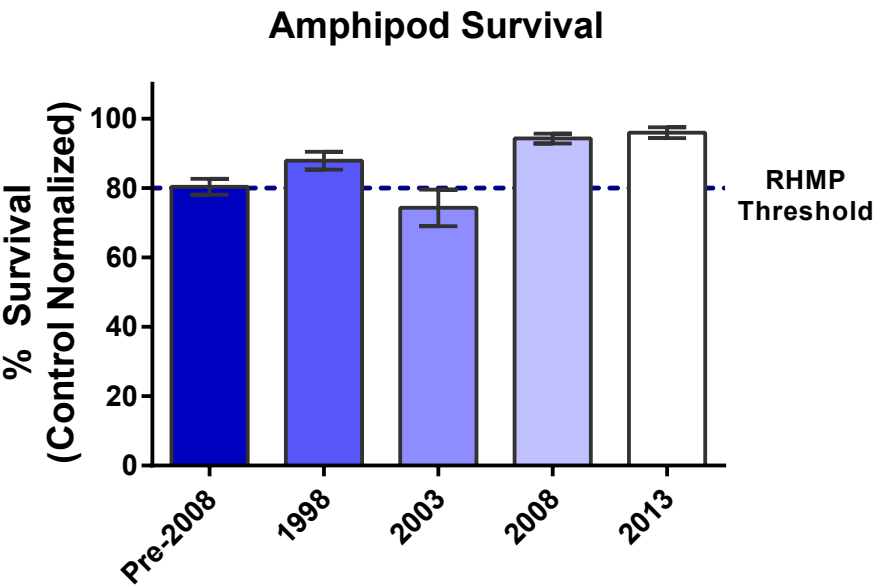


Notes:

1) The column with pre-2008 data includes values from studies summarized in Appendix D.

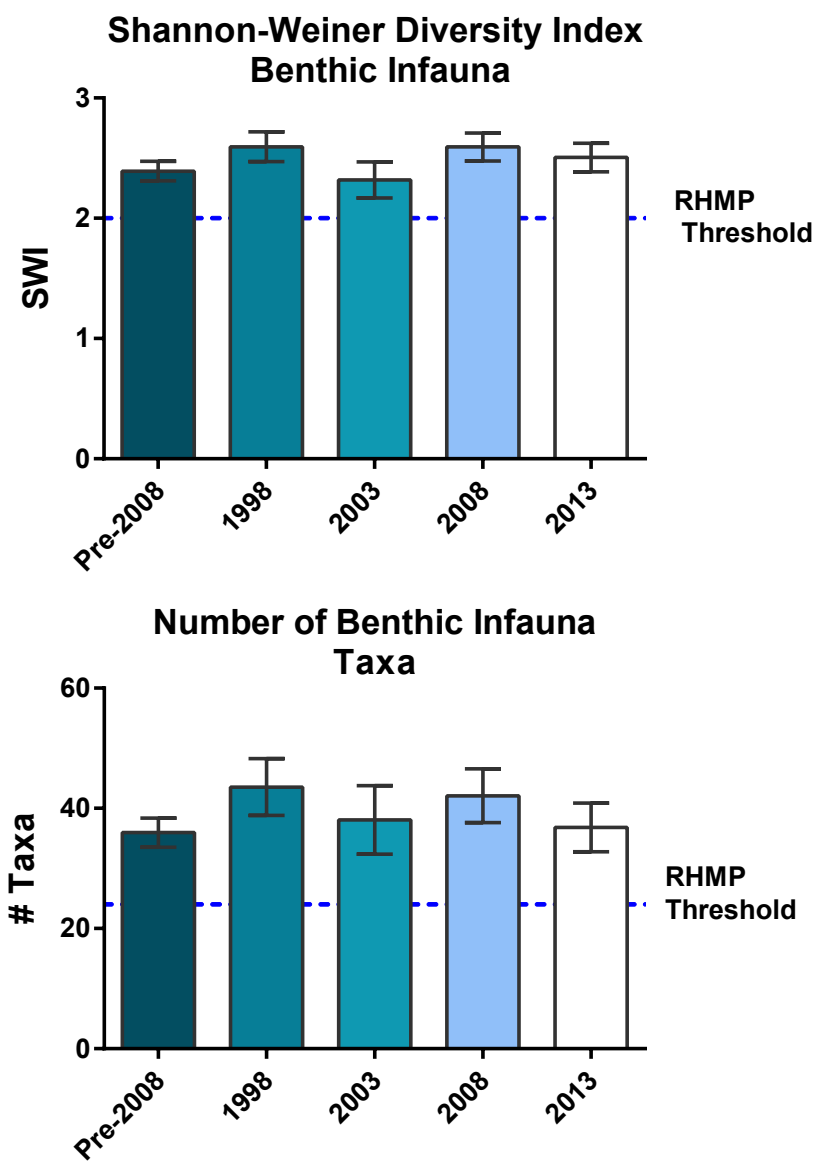
2) Mean values and 95% confidence intervals are displayed.
n= 190 (pre-2008), and 75 (2008 and 2013)

Historical Toxicity Test Result Comparisons
RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and
2003) and RHMP Programs (2008 and 2013)
All Data Combined



- Notes:**
- 1) The column with pre-2008 data includes values from studies summarized in Appendix D.
 - 2) Mean values and 95% confidence intervals are displayed.
n= 192 (pre-2008), 52 (1998), 33 (2003) and 75 (2008 and 2013). The bivalve sediment-water interface (SWI) test was performed only in 2008 and 2013.

Historical Benthic Infauna Community Comparisons
RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and
2003) and RHMP Programs (2008 and 2013)
All Data Combined



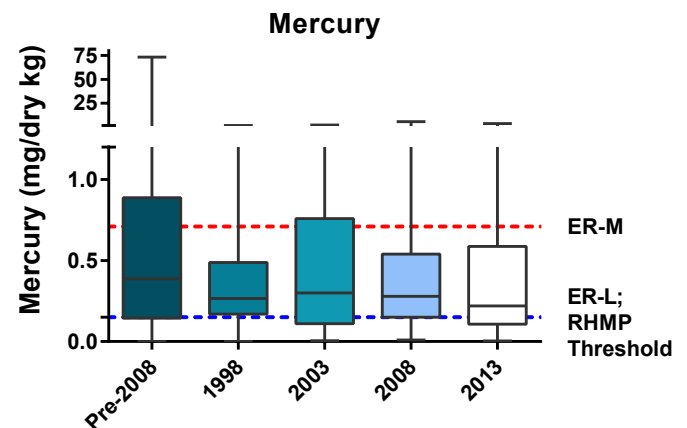
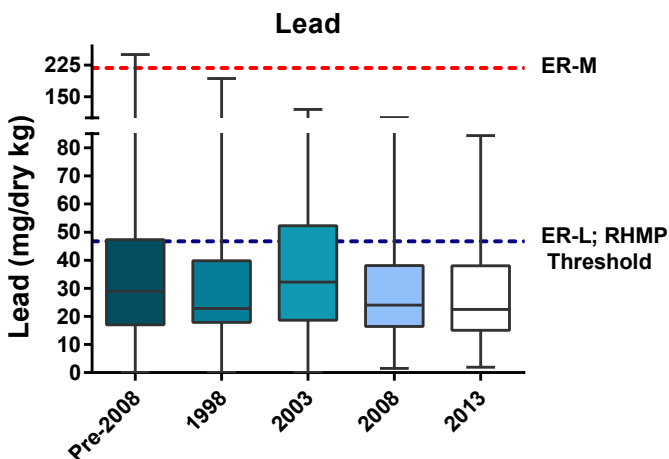
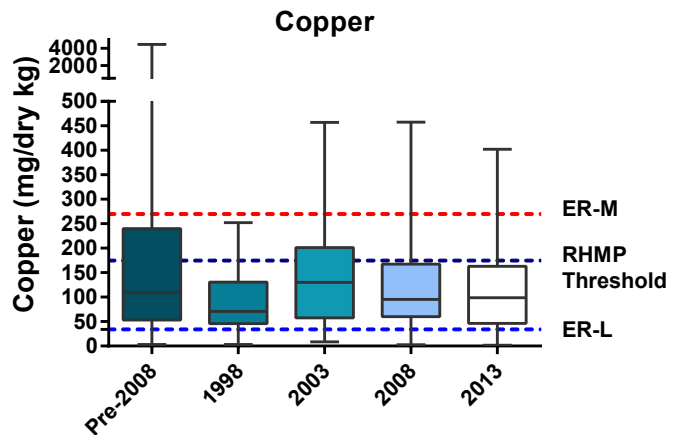
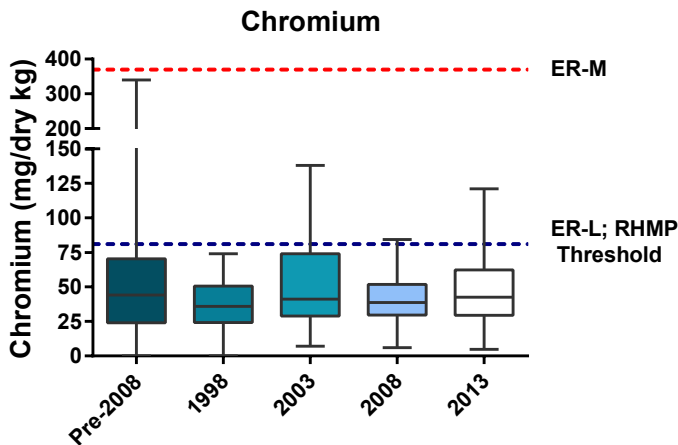
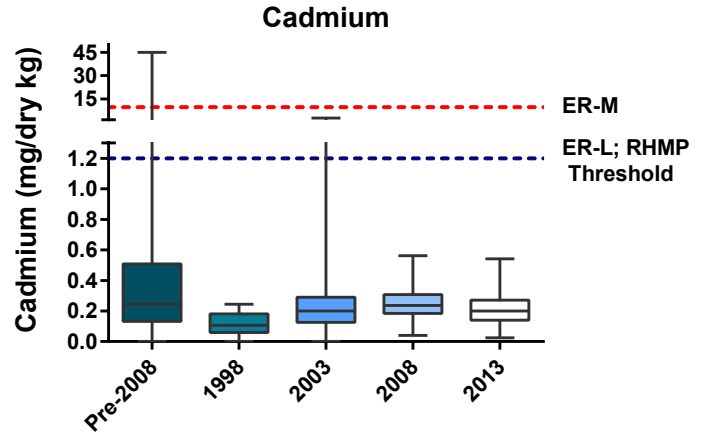
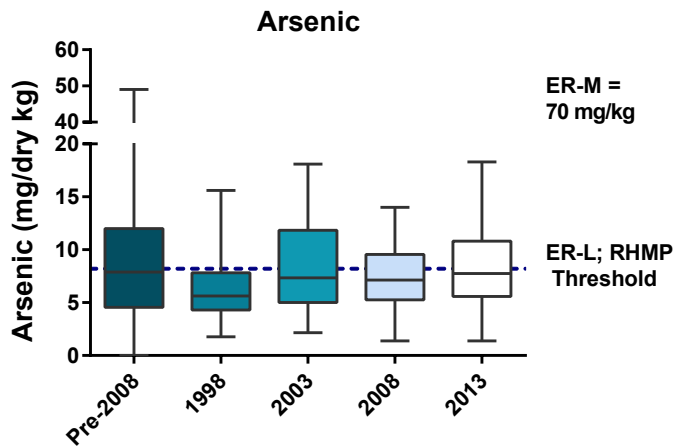
- Notes:**
- 1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.
 - 2) Mean values and 95% confidence intervals are displayed.
n= 170 (pre-2008), 52 (1998), 33 (2003), and 75 (2008 and 2013)
 - 3) BRI values are not presented due to differences in derivation over time and QA/QC issues identified with the 2008 data as described further in the QA/QC Section of the report.

Box Plots

Historical Sediment Chemistry Comparisons

RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

*All Data Combined



Notes:

1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.

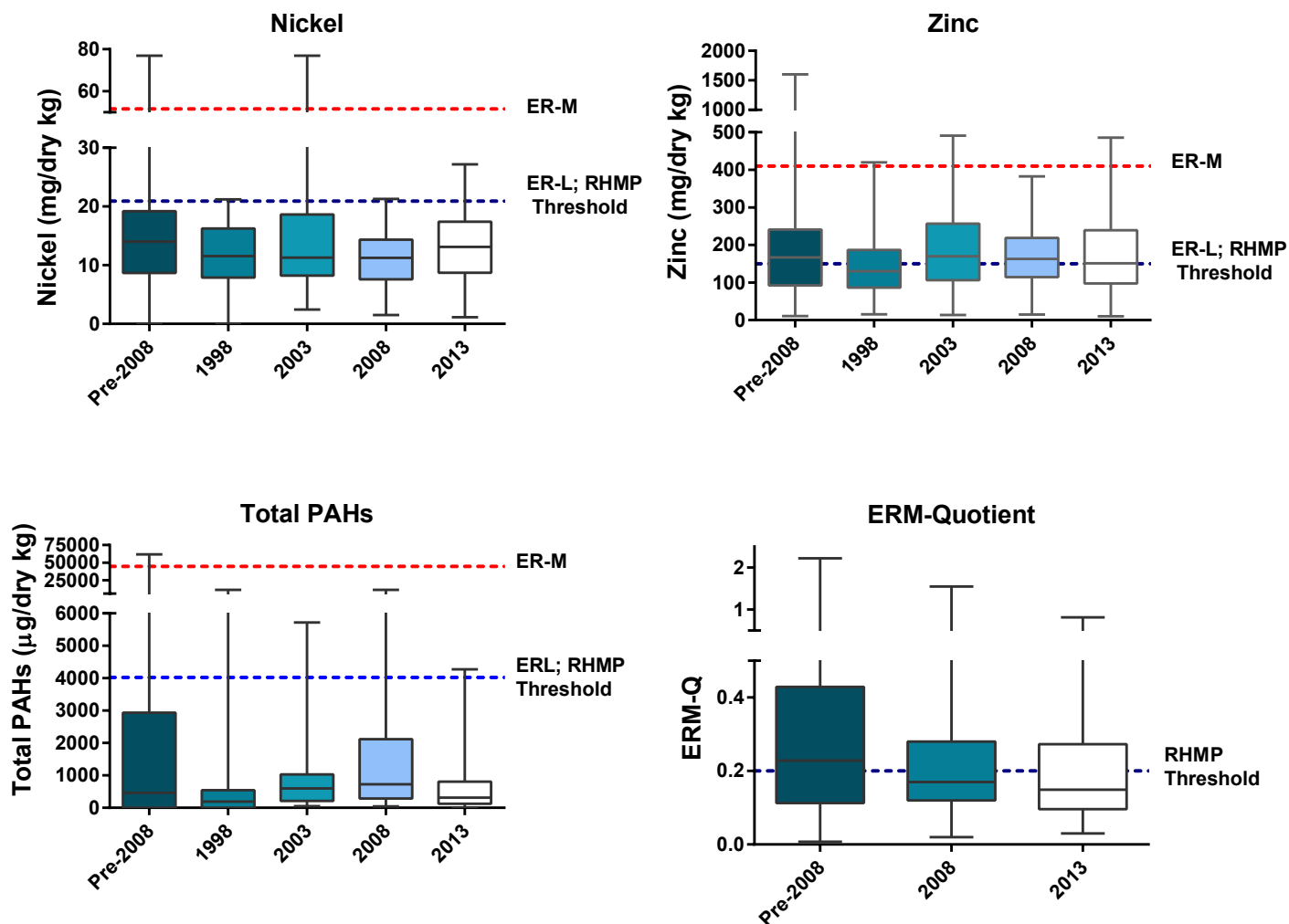
2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

n= 532 (pre-2008), 48 (1998), 33 (2003), and 75 (2008 and 2013)

Historical Sediment Chemistry Comparisons

RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

***All Data Combined**



Notes:

1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.

2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

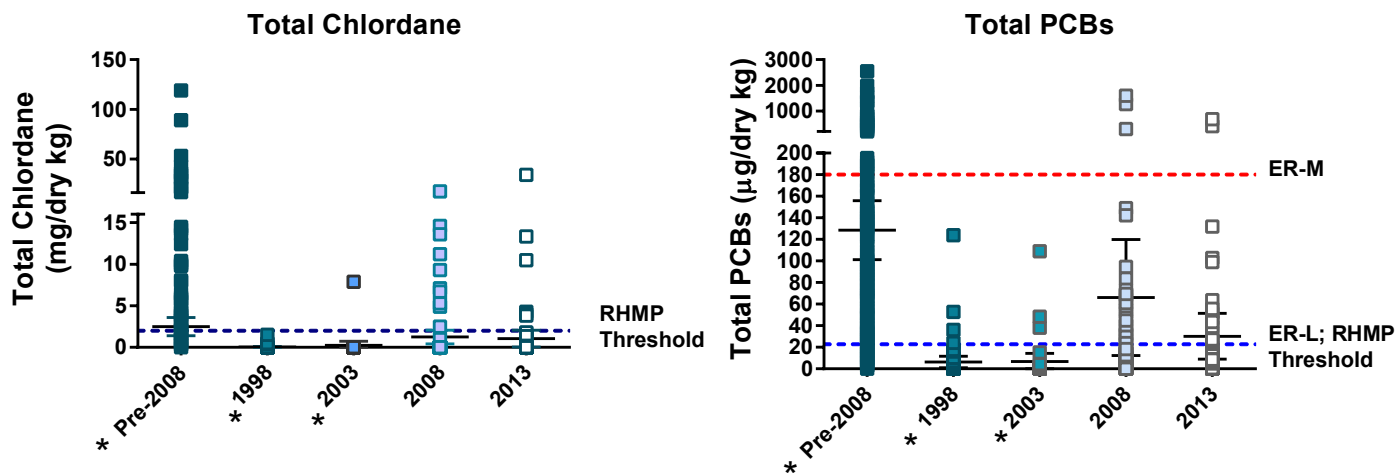
n= 532 (pre-2008), 48 (1998), 33 (2003), and 75 (2008 and 2013)

3) ERM-Quotients not readily available for Bight 1998 and 2003 datasets.

Historical Sediment Chemistry Comparisons

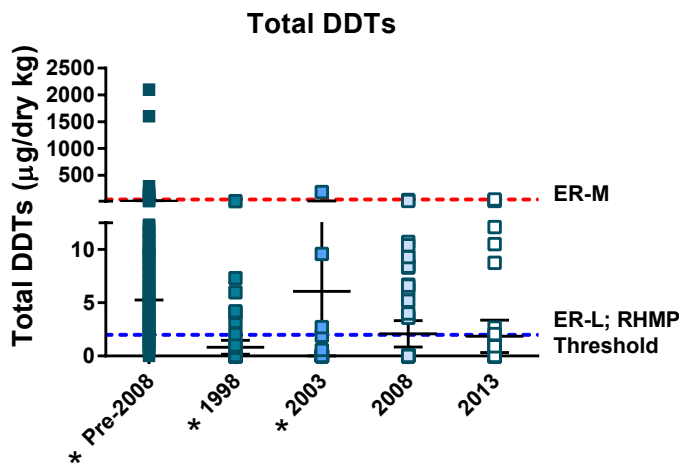
RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

*All Data Combined



* Chlordane reporting limits for Bight 1998 and 2003 ranged from 0.14 to 6.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.05 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.

* PCB reporting limits for Bight 1998 and 2003 ranged from 0.03 to 3.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.1 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.



* DDT reporting limits for Bight 1998 and 2003 ranged from 0.1 to 11.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.05 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.

Notes:

1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.

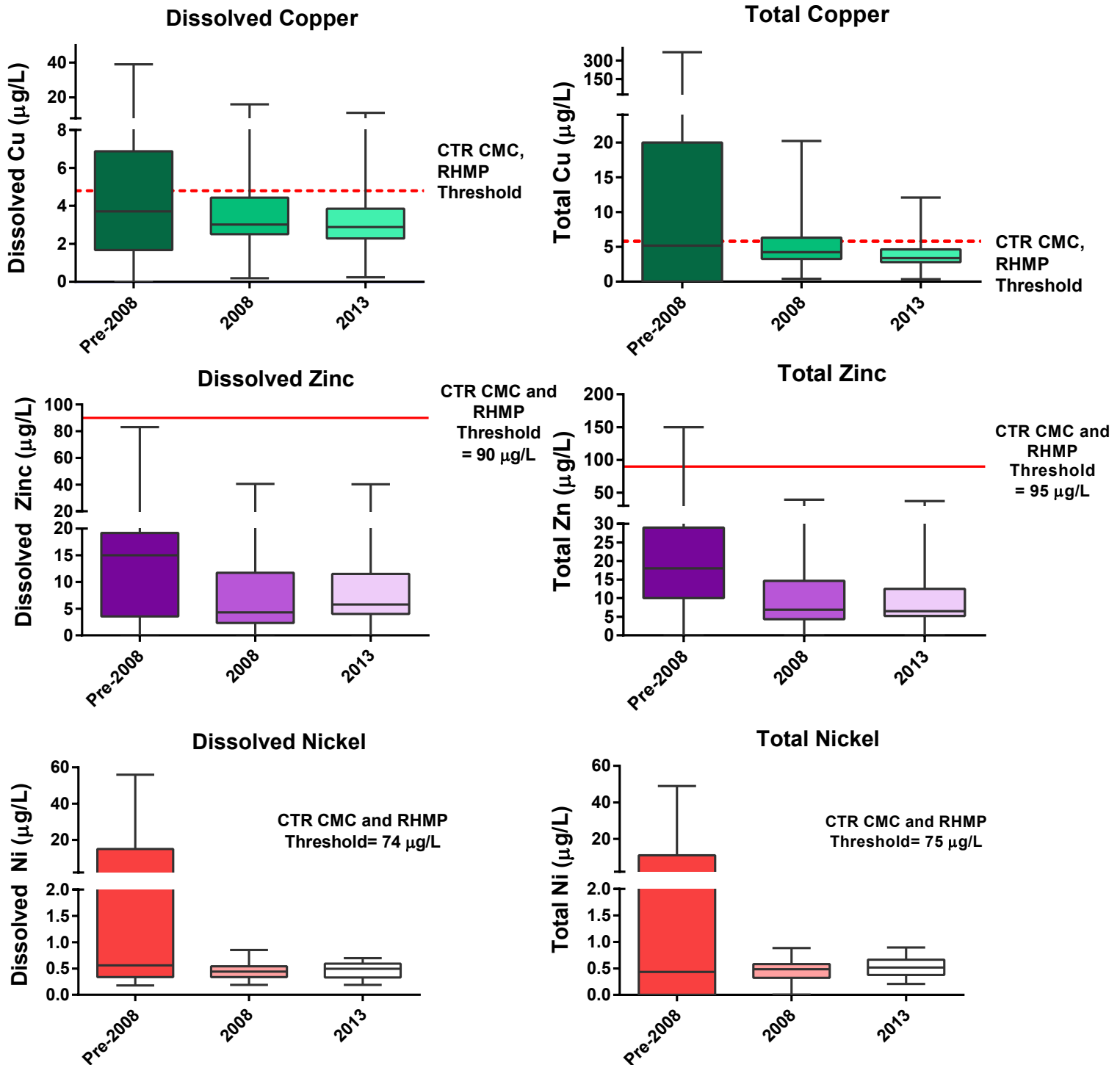
2) Due to the large scatter and number of non-detect values for these analytes comparisons are presented using aligned dot plots with mean values and 95% confidence intervals. Concentrations below the detection limit are included as a value of zero.

n= 532 (pre-2008), 48 (1998), 33 (2003), and 75 (2008 and 2013)

Historical Water Chemistry Comparisons

RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

All Data Combined



Notes:

1) The column with pre-2008 data includes values from studies summarized in Appendix D.

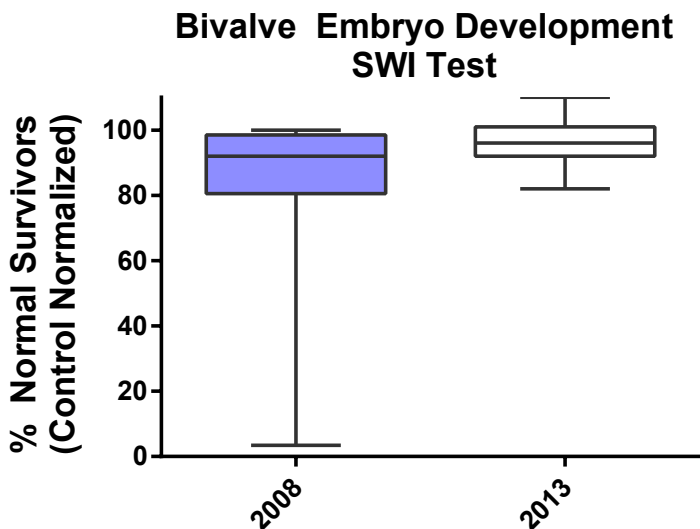
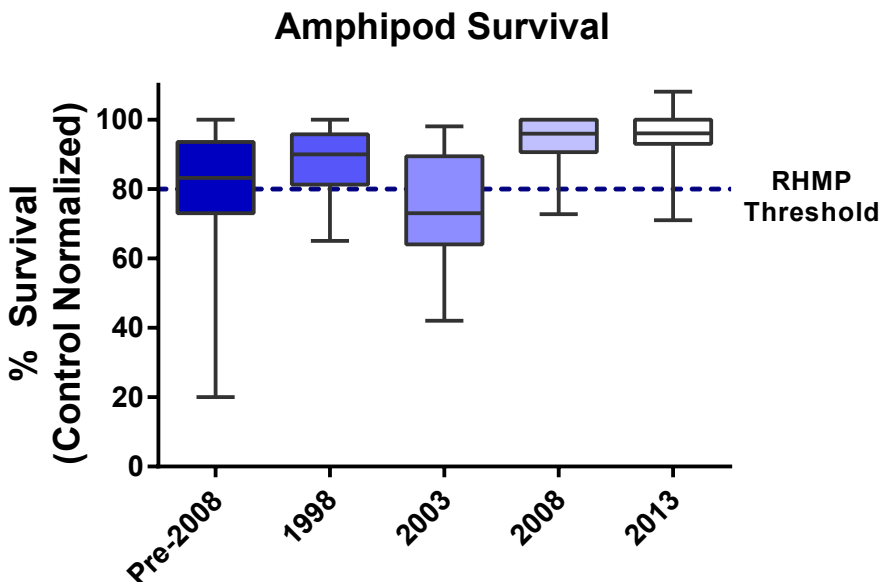
2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

n= 190 (pre-2008), and 75 (2008 and 2013)

Historical Toxicity Test Result Comparisons

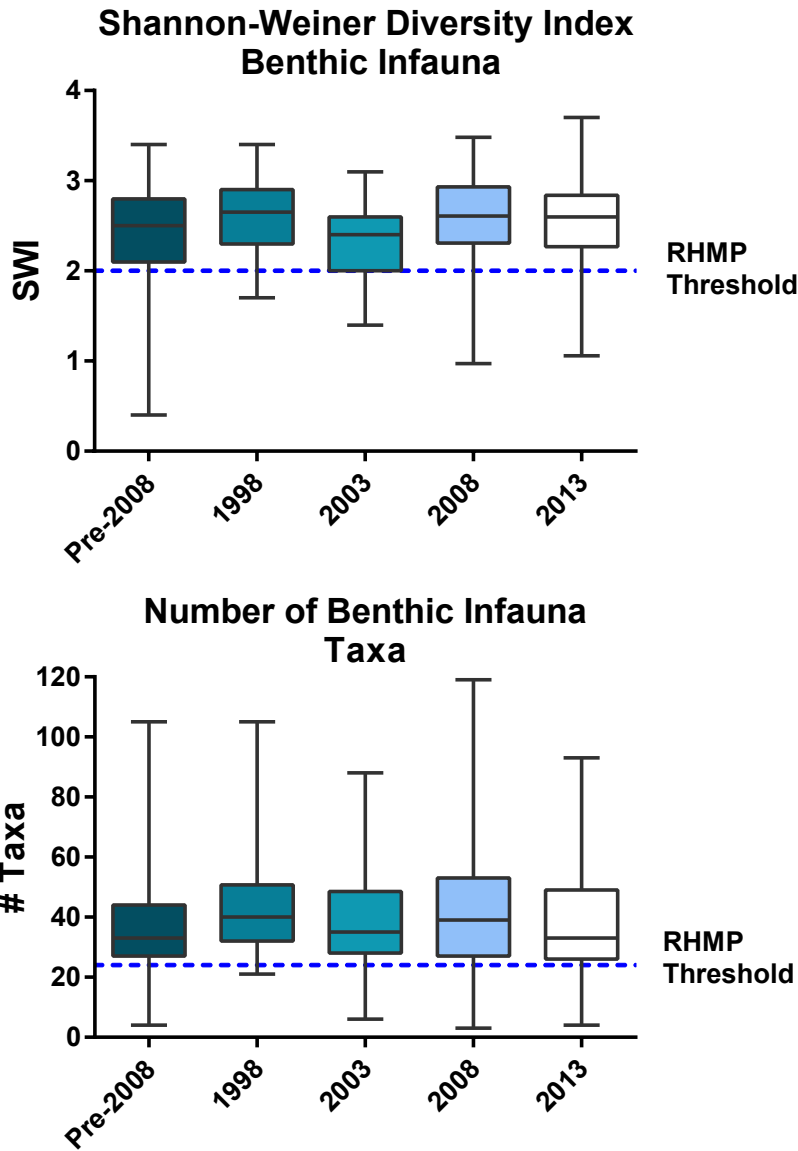
RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

All Data Combined



- Notes:
- 1) The column with pre-2008 data includes values from studies summarized in Appendix D.
 - 2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.
- n= 192 (pre-2008), 52 (1998), 33 (2003) and 75 (2008 and 2013). The bivalve sediment-water interface (SWI) test was performed only in 2008 and 2013.

Historical Benthic Infauna Community Comparisons
RHMP Threshold Studies (pre-2008) vs Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)
All Data Combined



Notes:

1) The column with pre-2008 data includes values from Bight 1998 and 2003 in addition to a number of other studies as presented in Appendix D.

2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

n= 170 (pre-2008), 52 (1998), 33 (2003), and 75 (2008 and 2013)

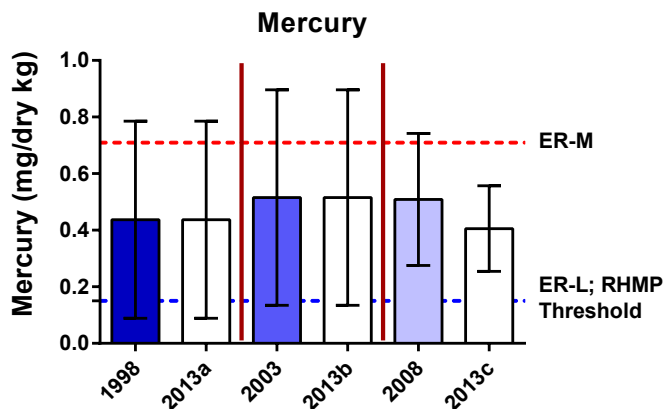
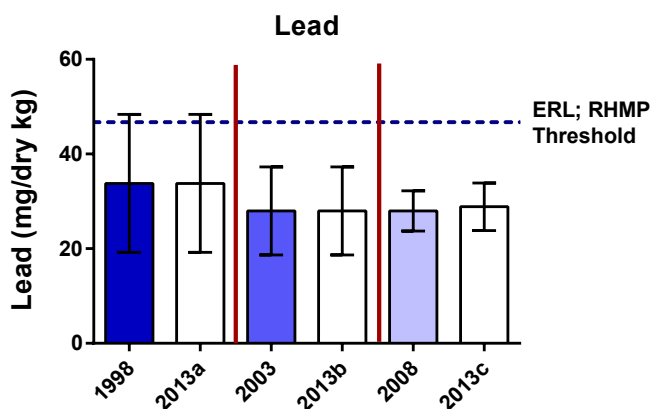
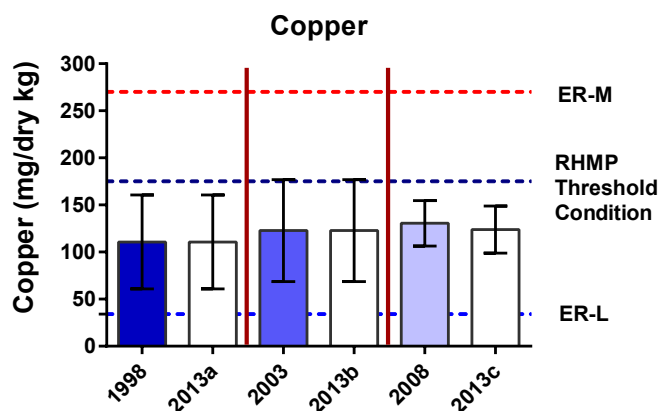
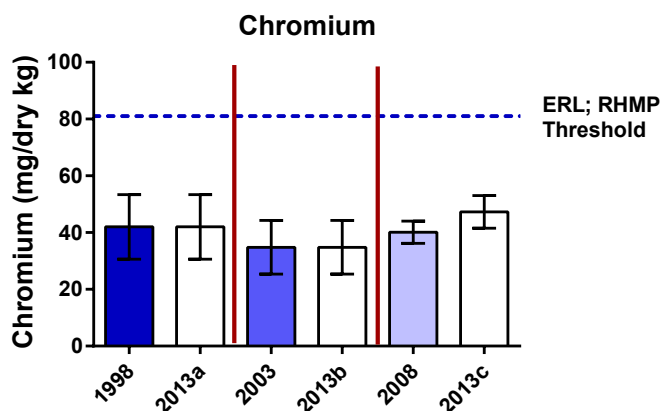
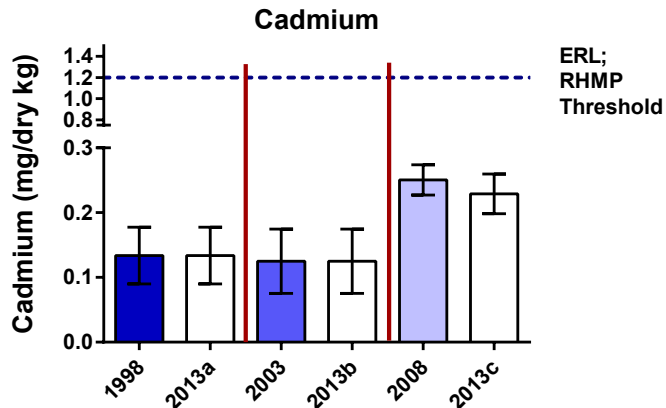
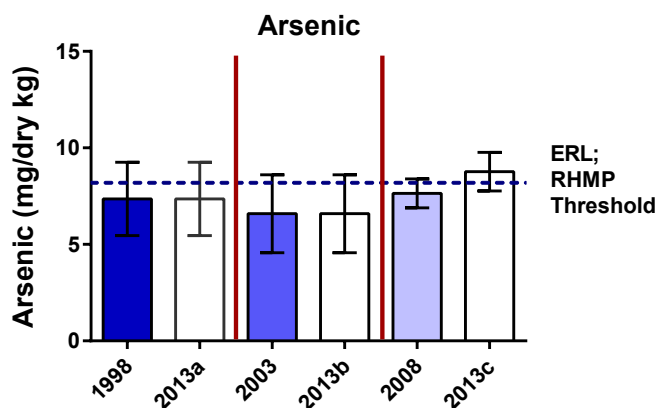
3) BRI values are not presented due to differences in derivation over time and QA/QC issues identified with the 2008 data as described further in the QA/QC Section of the report.

Historic Comparisons Revisited Sites Only

Bar Charts

Historical Sediment Chemistry Comparisons Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

***Revisited Sites Only**



Notes:

1) Only revisited sites are shown which varies among survey periods. 2013a = Sites revisited from 1998 (n=11-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)

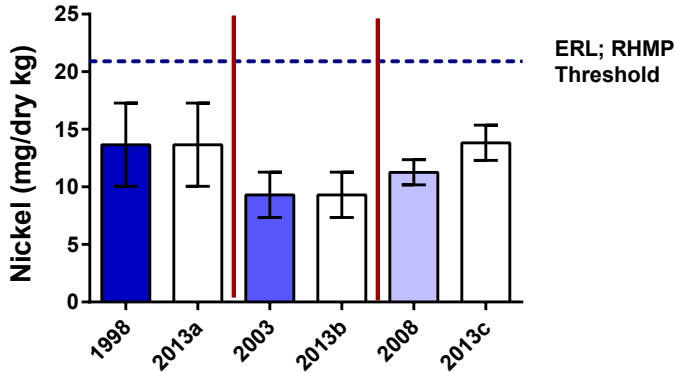
2) Mean values and 95% confidence intervals are displayed.

Historical Sediment Chemistry Comparisons

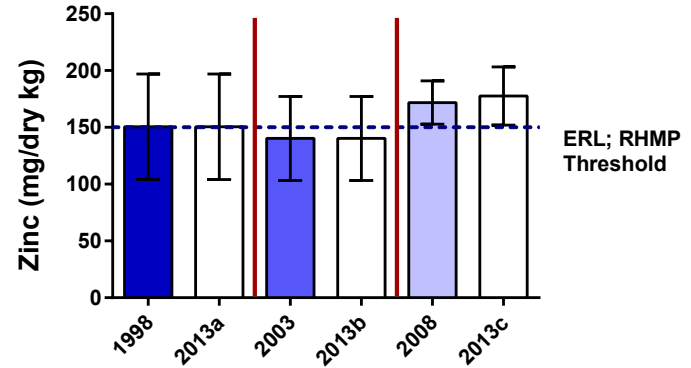
Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

***Revisited Sites Only**

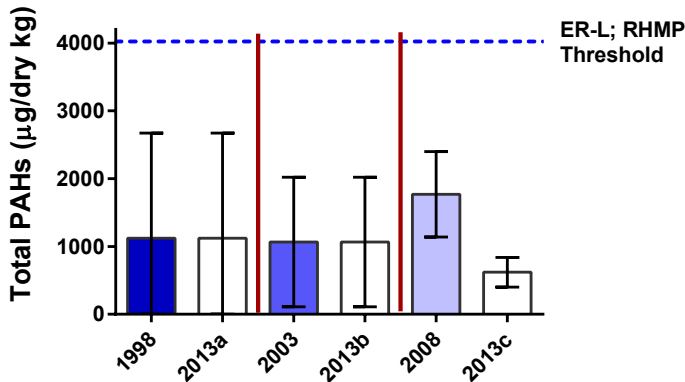
Nickel



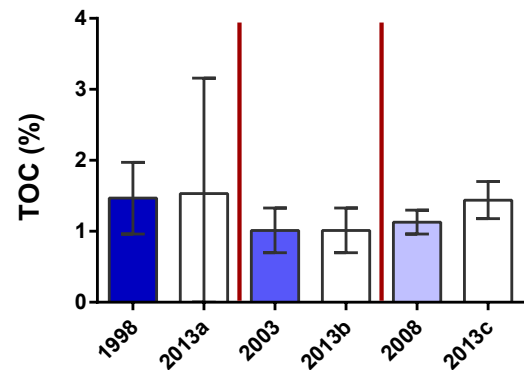
Zinc



Total PAHs



Total Organic Carbon



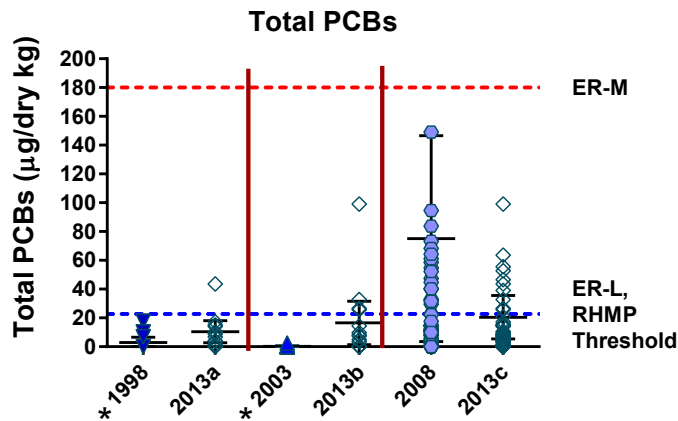
Notes:

- 1) Only revisited sites are shown which varies among survey periods. 2013a = Sites revisited from 1998 (n=7-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)
- 2) Mean values and 95% confidence intervals are displayed.

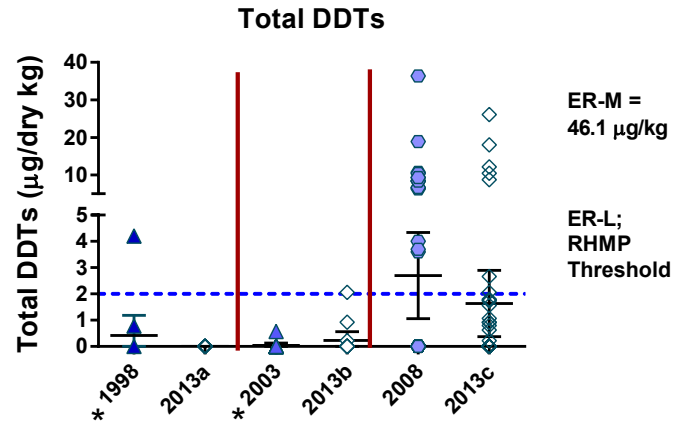
Historical Sediment Chemistry Comparisons

Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

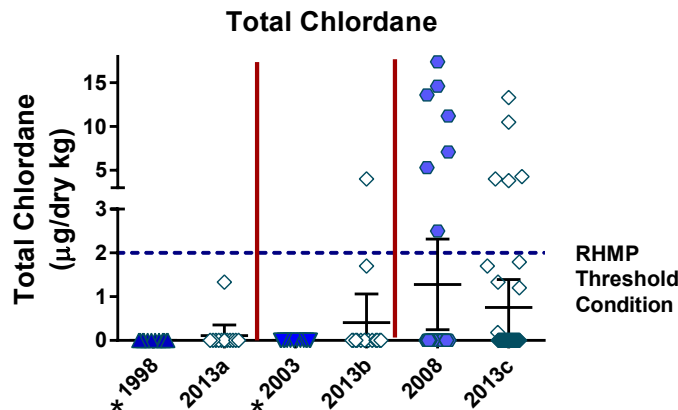
***Revisited Sites Only**



* PCB reporting limits for Bight 1998 and 2003 ranged from 0.03 to 3.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.1 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.



* DDT reporting limits for Bight 1998 and 2003 ranged from 0.1 to 11.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.05 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.



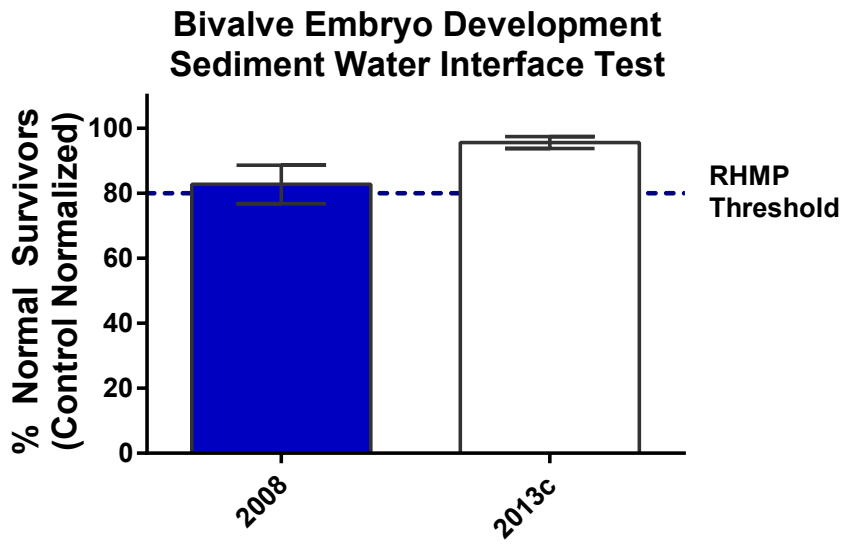
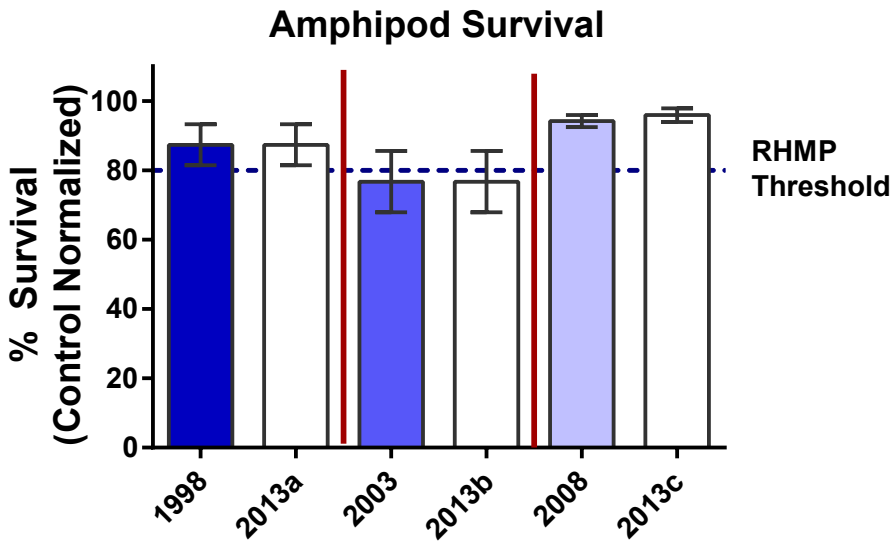
* Chlordane reporting limits for Bight 1998 and 2003 ranged from 0.14 to 6.0 $\mu\text{g/kg}$ compared to 1.0 $\mu\text{g/kg}$ in 2008 and 0.05 $\mu\text{g/kg}$ in 2013. This discrepancy likely biased pre-2008 concentrations low.

Notes:

1) Only revisited sites are shown which varies among survey periods.
 2013a = Sites revisited from 1998 (n=7-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)

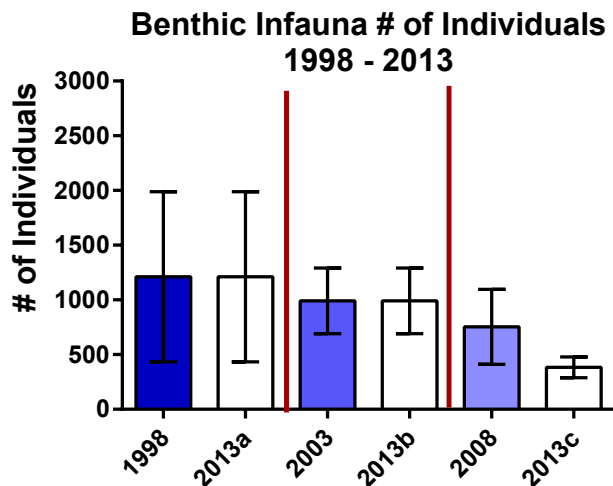
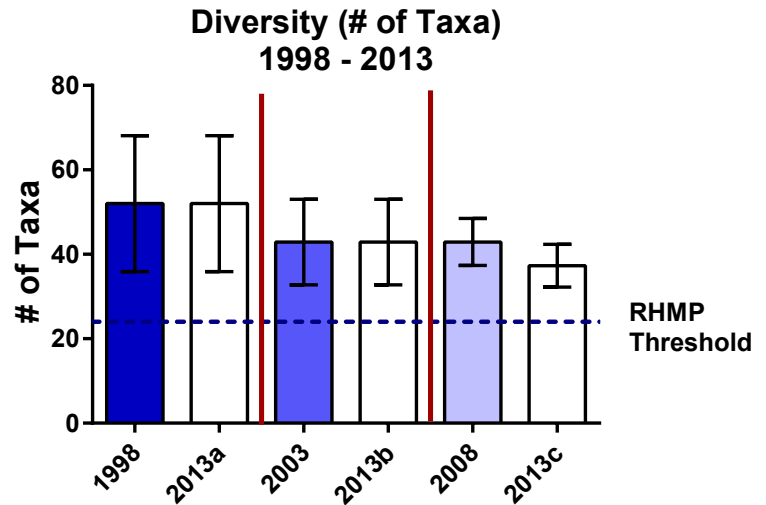
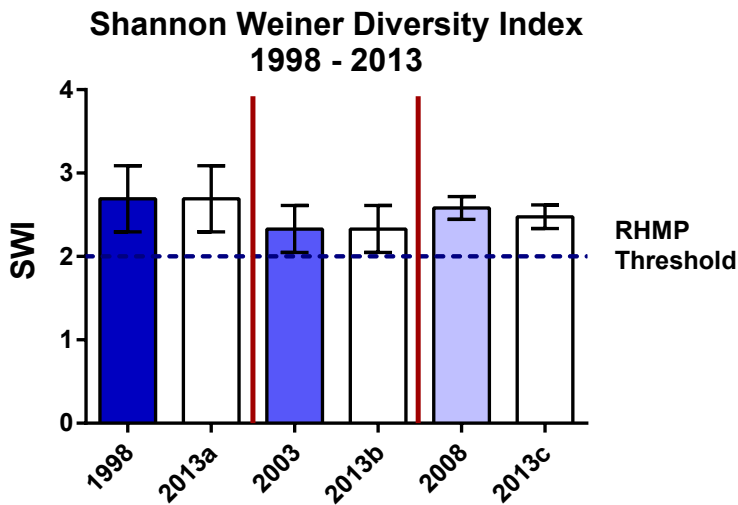
2) Due to the large scatter and number of non-detect values for these analytes comparisons are presented using aligned dot plots with mean values and 95% confidence intervals. Concentrations below the detection limit are included as a value of zero.

**Historical Amphipod Toxicity Comparisons
Regional Bight Programs (1998 and 2003) and RHMP Programs
(2008 and 2013)
*Revisited Sites Only**



- Notes:**
- 1) Only revisited sites are shown which varies among survey periods. 2013a = Sites revisited from 1998 (n=12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)
 - 2) Mean values and 95% confidence intervals are displayed.
 - 3) The bivalve sediment-water interface (SWI) test was performed only in 2008 and 2013.

Historical Benthic Infauna Community Comparisons Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013) *Revisited Sites Only



Notes:

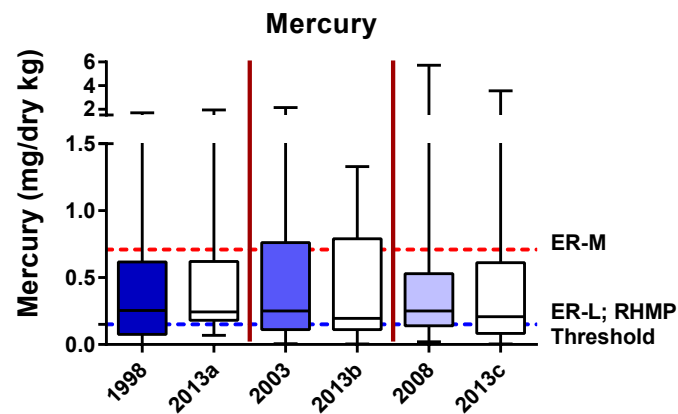
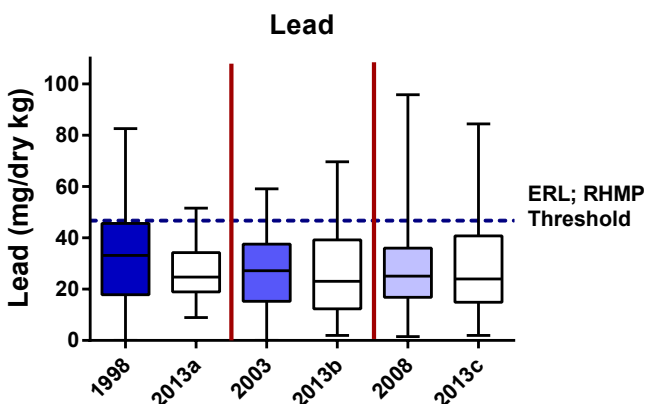
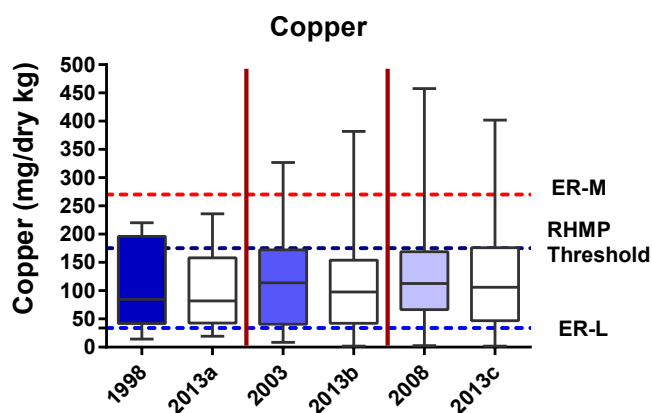
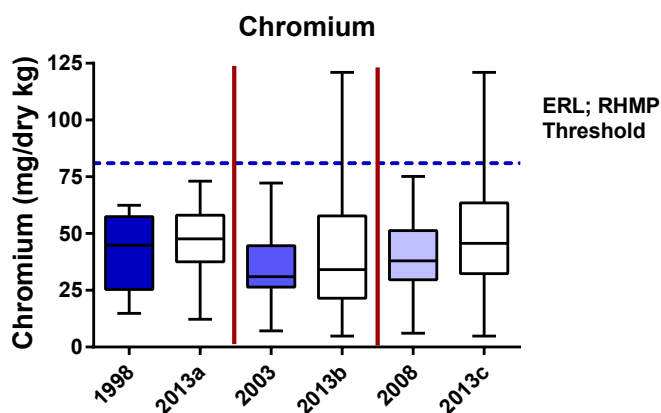
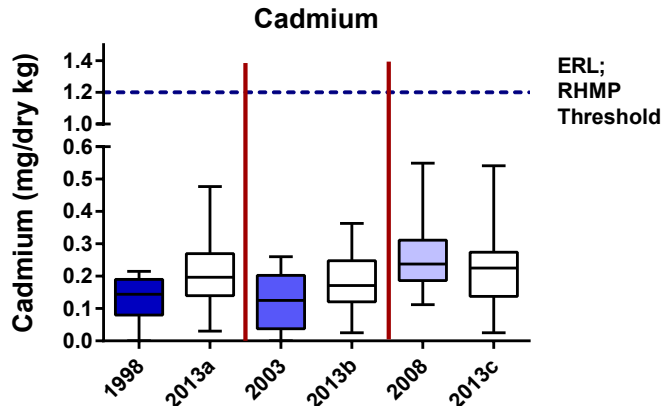
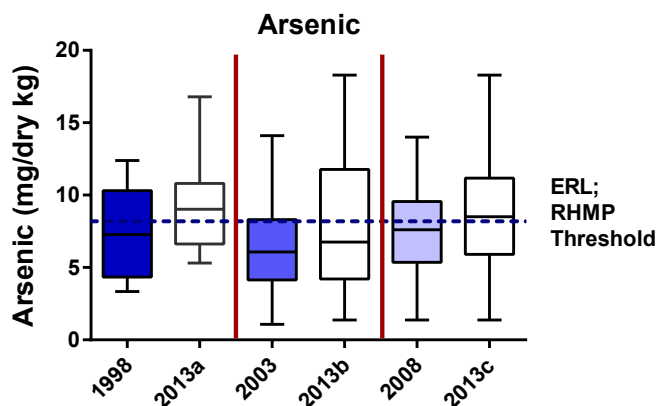
1) Only revisited sites are shown which varies among survey periods. 2013a = Sites revisited from 1998 (n=11-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)

2) Mean values and 95% confidence intervals are displayed.

Box Plots

Historical Sediment Chemistry Comparisons Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

***Revisited Sites Only**



Notes:

1) Only revisited sites are shown which varies among survey periods.
2013a = Sites revisited from 1998 (n=11-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)

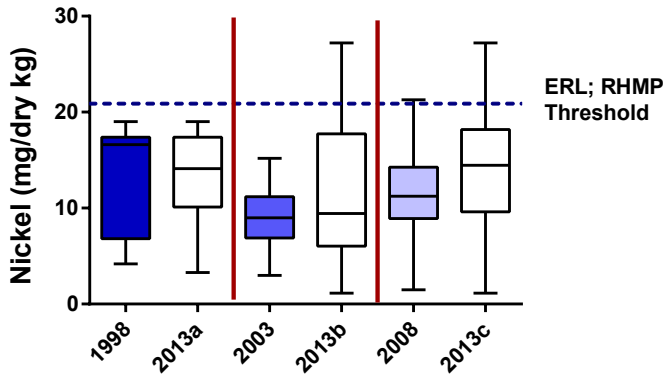
2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

Historical Sediment Chemistry Comparisons

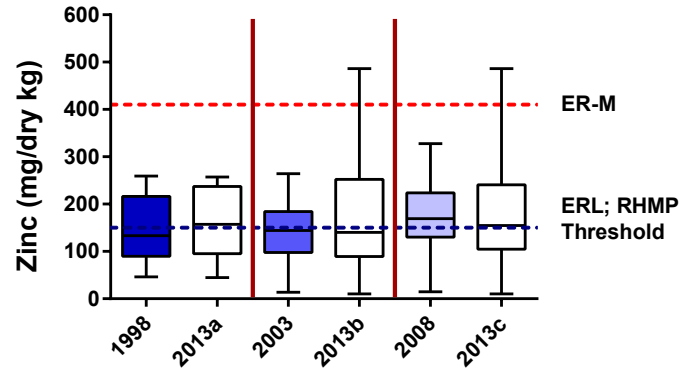
Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

***Revisited Sites Only**

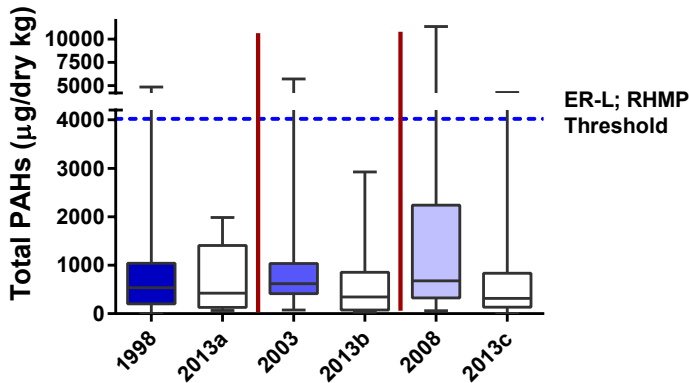
Nickel



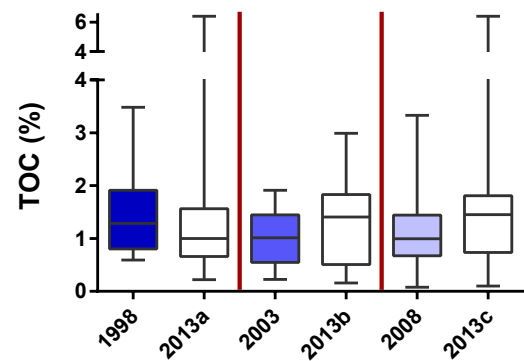
Zinc



Total PAHs



Total Organic Carbon



Notes:

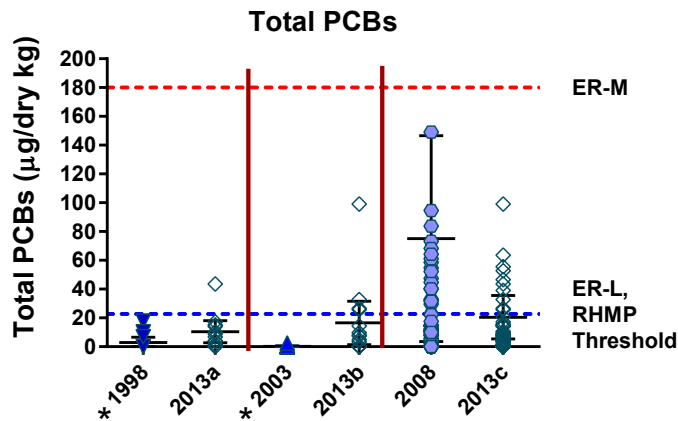
1) Only revisited sites are shown which varies among survey periods.
 2013a = Sites revisited from 1998 (n=7-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)

2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

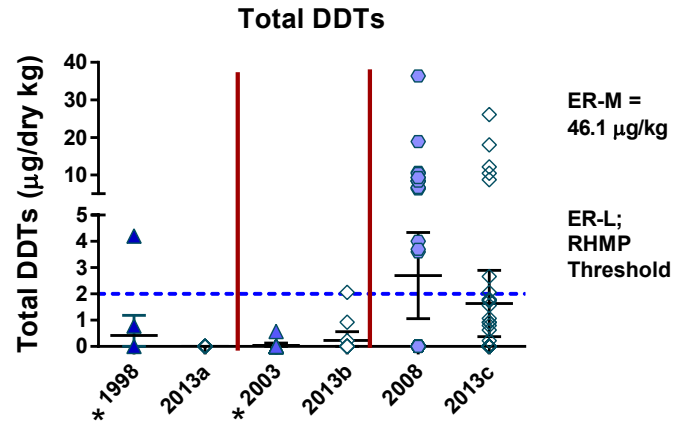
Historical Sediment Chemistry Comparisons

Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013)

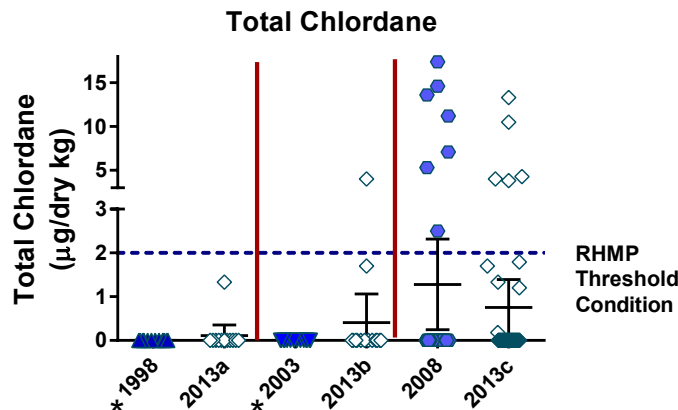
***Revisited Sites Only**



* PCB reporting limits for Bight 1998 and 2003 ranged from 0.03 to 3.0 µg/kg compared to 1.0 µg/kg in 2008 and 0.1 µg/kg in 2013. This discrepancy likely biased pre-2008 concentrations low.



* DDT reporting limits for Bight 1998 and 2003 ranged from 0.1 to 11.0 µg/kg compared to 1.0 µg/kg in 2008 and 0.05 µg/kg in 2013. This discrepancy likely biased pre-2008 concentrations low.



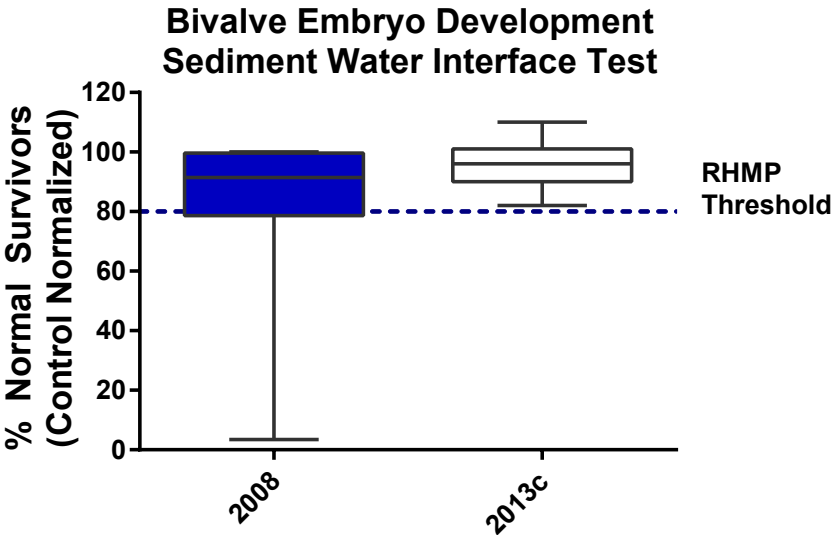
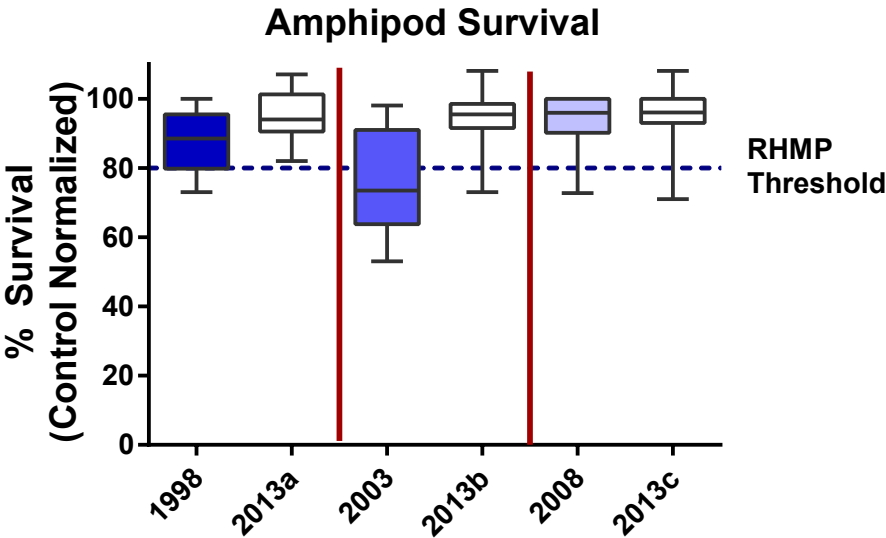
* Chlordane reporting limits for Bight 1998 and 2003 ranged from 0.14 to 6.0 µg/kg compared to 1.0 µg/kg in 2008 and 0.05 µg/kg in 2013. This discrepancy likely biased pre-2008 concentrations low.

Notes:

1) Only revisited sites are shown which varies among survey periods.
2013a = Sites revisited from 1998 (n=7-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)

2) Due to the large scatter and number of non-detect values for these analytes comparisons are presented using aligned dot plots with mean values and 95% confidence intervals. Concentrations below the detection limit are included as a value of zero.

**Historical Amphipod Toxicity Comparisons
Regional Bight Programs (1998 and 2003) and RHMP Programs
(2008 and 2013)
*Revisited Sites Only**



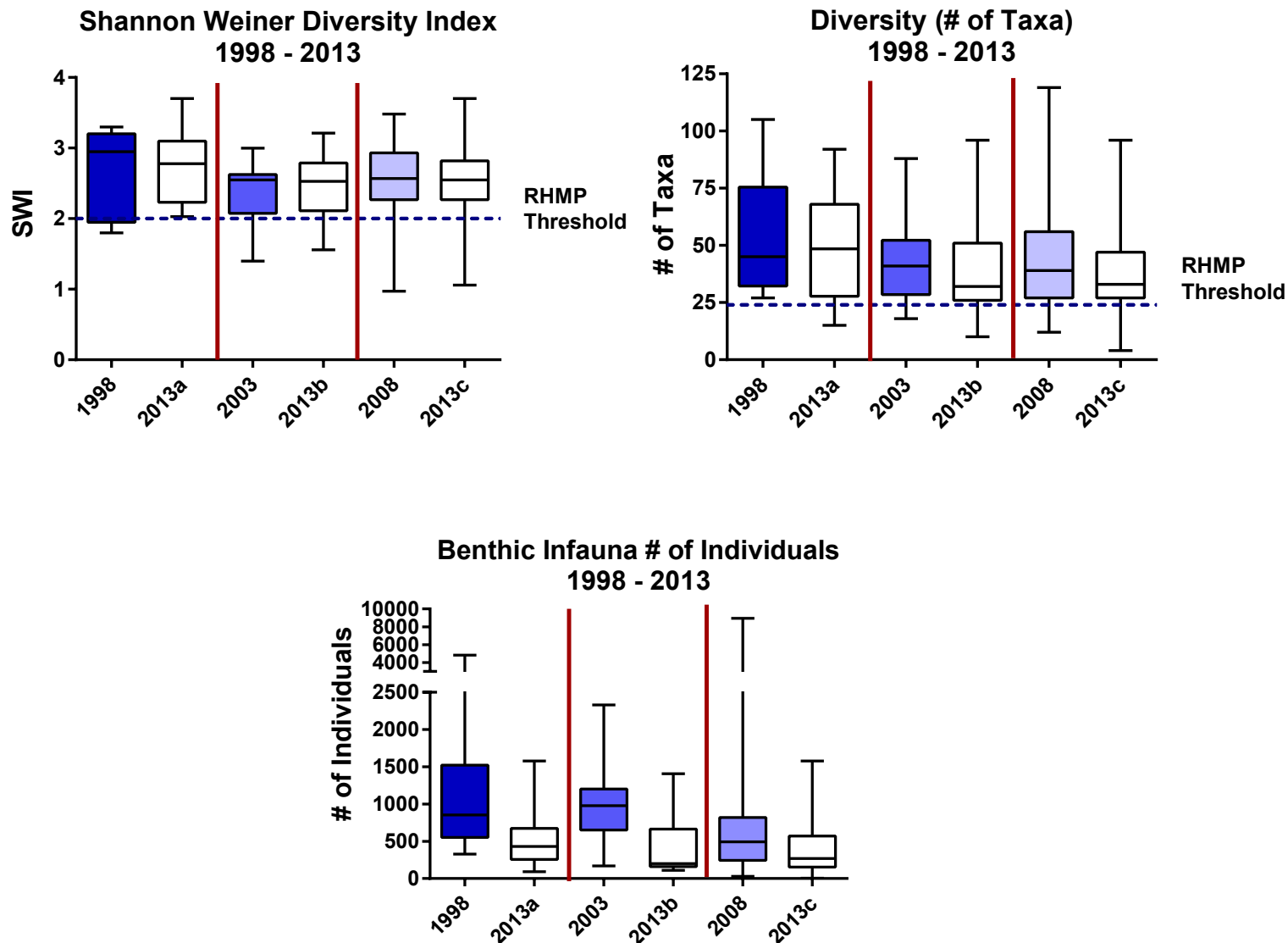
Notes:

1) Only revisited sites are shown which varies among survey periods. 2013a = Sites revisited from 1998 (n=12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)

2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

3) The bivalve sediment-water interface (SWI) test was performed only in 2008 and 2013.

Historical Benthic Infauna Community Comparisons Regional Bight Programs (1998 and 2003) and RHMP Programs (2008 and 2013) *Revisited Sites Only



Notes:

- 1) Only revisited sites are shown which varies among survey periods.
2013a = Sites revisited from 1998 (n=11-12); 2013b = Sites revisited from 2003 (n=14); and 2013c = Sites revisited from 2008 (n=56)
- 2) Plots depict the median value between the 25th and 75th percentile values (shaded box), and min. and max. values represented by the ends of the whiskers.

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