

Appendix

Table 1: One-way ANOVA results for the effects of seasons and species and size in Metal concentrations. Shown is F values (F) and significance (P).

Sites	Tissue	Metal (µg/g)	Season		Species		Size	
			F	P	F	P	F	P
Aden	Muscles	Pb	0.837	0.442	35.100	0.000	1.387	0.264
		Cd	7.288	0.002	4.293	0.012	3.978	0.028
		Hg	0.023	0.977	44.291	0.000	1.069	0.355
		As	0.008	0.992	12.468	0.000	8.478	0.001
Al Hudaydah	Muscles	Pb	0.965	0.391	12.461	0.000	3.604	0.038
		Cd	0.391	0.680	16.603	0.000	5.129	0.011
		Hg	0.460	0.635	37.617	0.000	1.458	0.247
		As	0.171	0.843	5.984	0.002	3.645	0.037
Al Mukalla	Muscles	Pb	0.222	0.802	47.797	0.000	1.547	0.228
		Cd	4.745	0.015	4.215	0.013	2.945	0.067
		Hg	0.064	0.938	21.976	0.000	3.253	0.051
		As	0.451	0.641	5.276	0.005	12.538	0.000

Table 2: Two-way ANOVA analysis results for metals concentrations during the seasons at the three sites (Aden, AL-Hudaydah and AL-Mukalla). Shown are F values (F) and significance (P).

Tissue	Factors	Pb		Cd		Hg		As	
		F	P	F	P	F	P	F	P
Muscles	Sites	15.500	0.000	4.928	0.009	0.285	0.753	0.634	0.533
	Seasons	1.755	0.178	6.454	0.002	0.176	0.839	0.009	0.991

Table 3: Two-way ANOVA analysis results for metals concentrations during the Species at the three Size (Large , Medium and Small). Shown is F values (F) and significance (P).

Tissue	Factors	Pb (µg/g)		Cd (µg/g)		Hg (µg/g)		As (µg/g)	
		F	P	F	P	F	P	F	P
Muscles	Species	31.637	0.000	20.522	0.000	84.757	0.000	44.134	0.000
	Size	9.253	0.000	17.107	0.000	18.853	0.000	49.393	0.000

Table 4: One-way ANOVA results for the effects of seasons in Metal concentrations. Shown is F values (F) and significance (P).

Sites	Metal	Season at Seawater	
		F	P
Aden	Pb	6.984	0.004
	Cd	7.784	0.002
	Hg	22.235	0.000
	As	2.043	0.152
Al Hudaydah	Pb	0.883	0.426
	Cd	1.634	0.216
	Hg	7.736	0.003
	As	6.395	0.006
AL Mukallala	Pb	8.659	0.001
	Cd	25.997	0.000
	Hg	17.743	0.000
	As	0.952	0.400

Table 5: Two-way ANOVA analysis results for metals concentrations during the seasons at the three sites (Aden, AL-Hudaydah and AL-Mukalla) in filtered water surface .Shown are F values (F) and significance (P).

Factors	Pb		Cd		Hg		As	
	F	P	F	P	F	P	F	P
Seasons	1.844	0.165	9.955	0.000	7.253	0.001	4.300	0.017
Sites	19.358	0.000	3.185	0.047	13.915	0.000	204.857	0.000