

2008 Floodplain Soil Samples

Analysis of MeHg

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Wetland MeHg Samples

Reach	FLOODPLAIN	Frequency
1	2 Year	7
1	5 Year	3
2	2 Year	10
3	2 Year	9
3	5 Year	1
4	2 Year	7
4	5 Year	2
4	62 Year	1
5	2 Year	9
5	5 Year	1
6	2 Year	7
6	5 Year	2
6	62 Year	1

60 wetlands samples total. All MeHg samples are wetlands surface samples.

Largest Surface Wetlands MeHg

FP	MeHg	EI	DIST	RRM	LOI
2 Year	31.8	0.00	37.0	7.18	6.9
2 Year	26.2	4.62	215.4	6.44	10.8
5 Year	24.1	0.00	166.1	20.13	6.7
2 Year	15.5	1.00	248.9	21.85	5.9
2 Year	13.4	0.00	26.9	16.14	4.4
2 Year	12.1	0.00	340.5	1.91	7.0
5 Year	11.8	3.44	336.3	11.38	5.2
2 Year	10.8	2.00	97.4	16.04	5.6
2 Year	10.7	.	222.1	12.50	.
2 Year	10.2	2.00	61.5	15.60	6.6

Elevation (EI) in ft above river

Distance (DIST) in feet from river center

Mean MeHg by Reach, FP

Reach	FP	LSmn	LCB	UCB
1	2 Yr	1.632	0.691	3.86
1	5 Yr	0.759	0.185	3.11
2	2 Yr	1.817	0.893	3.70
3	2 Yr	4.376	2.563	7.47
3	5 Yr	2.170	0.348	13.54
4	2 Yr	2.049	0.305	13.73
4	5 Yr	1.441	0.030	67.80
4	62 Yr	2.246	0.017	288.23
5	2 Yr	3.213	2.373	4.35
5	5 Yr	5.858	2.093	16.40
6	2 Yr	4.184	2.342	7.48
6	5 Yr	4.785	1.601	14.30
6	62 Yr	1.775	0.349	9.04

Higher MeHg associated with

- **2-Year FP**
 - R 5, 6 are exceptions
 - Significant only in R 4
- **Higher LOI**
 - R2 is exception
 - Significant in R 1 and 3 only
- **Higher %H₂O**
 - R1 is exception
 - Significant in R 4, 5, and 6 only
- **Shorter distance from river**
 - R4 is exception
- **Higher %silt**
 - R2 is exception
 - Significant only in R 1

Composite Wetlands MeHg

- **MeHg was not measured in composite samples from wetlands areas**

Combined Analysis of all MeHg Samples

- **ANOVA by reach of all FPs and landuses**
- **Log-transformed MeHg**

Surface MeHg Conclusions

- **Sparse data limits analysis**
- **Log-transformed data normally distributed**
- **Variances homogeneous**

MeHg Comparisons

Label	RATIO	LCBRAT	UCBRAT	SIG
FP2, REACH 2/1	2.34	0.6359	8.59	
FP2, REACH 3/1	1.56	0.4138	5.88	
FP2, REACH 4/1	1.37	0.2955	6.32	
FP2, REACH 5/1	2.04	0.5291	7.88	
FP2, REACH 6/1	1.45	0.3533	5.97	
FP2, REACH 3/2	0.67	0.1845	2.42	
FP2, REACH 4/2	0.58	0.1381	2.48	
FP2, REACH 5/2	0.87	0.2484	3.07	
FP2, REACH 6/2	0.62	0.1628	2.37	
FP2, REACH 4/3	0.88	0.1819	4.22	
FP2, REACH 5/3	1.31	0.3634	4.72	
FP2, REACH 6/3	0.93	0.2545	3.40	
FP2, REACH 5/4	1.49	0.3264	6.84	
FP2, REACH 6/4	1.06	0.20771	5.43	
FP2, REACH 6/5	0.71	0.18926	2.67	

MeHg Comparisons

Label	RATIO	LCBRAT	UCBRAT	SIG
FP5, REACH 3/1	3.14	0.15906	62.06	
FP5, REACH 4/1	4.78	0.44803	51.03	
FP5, REACH 5/1	3.45	0.17271	69.29	
FP5, REACH 6/1	4.37	0.41032	46.71	
FP5, REACH 4/3	1.52	0.06433	36.00	
FP5, REACH 5/3	1.10	0.02629	46.11	
FP5, REACH 6/3	1.39	0.05494	35.33	
FP5, REACH 5/4	0.72	0.03010	17.39	
FP5, REACH 6/4	0.91	0.06635	12.63	
FP5, REACH 6/5	1.26	0.05264	30.42	
F62, REACH 6/4	0.91	0.02399	35.07	

MeHg Comparisons

Label	RATIO	LCBRAT	UCBRAT	SIG
REACH1, FP 5/2	0.51	0.08572	3.12	
REACH4, FP 5/2	1.80	0.21165	15.47	
REACH4, FP62/2	1.13	0.06764	18.90	
REACH4, FP62/5	0.62	0.02656	14.69	
REACH6, FP 5/2	1.55	0.20026	12.14	
REACH6, FP62/2	0.97	0.06228	15.29	
REACH6, FP62/5	0.62	0.02708	14.46	
REACH3, FP 5/2	1.04	0.06170	17.58	
REACH5, FP 5/2	0.87	0.05411	14.18	