

Katherine von Stackelberg

From: Katherine von Stackelberg [kvon@igc.org]
Sent: Monday, November 13, 2000 8:56 AM
To: Hudson_Archives; Claire Hunt; Helen Chernoff; kvon@menziecura.com
Subject: FW: Hudson River mammal contaminant data

-----Original Message-----

From: Jeff Loukmas [mailto:jlouk@squonk.net]
Sent: Monday, November 13, 2000 8:33 AM
To: kvon@IGC.org
Subject: Hudson River mammal contaminant data

Hi Tricia

Dave Mayack informed me that you were interested in viewing some of our preliminary PCB data. Attached is a database of the most recent PCB data for mink, otter, and muskrats in the Hudson River watershed. Please keep in mind that the database is still under construction. Not all data have been received from the tox. lab. It will probably be another month before I have the information I need to complete it.

I also have a .dbf file that contains GIS coordinates for mink from the 1998-9 sample. Let me know if you are interested in this file.

I included another attachment that contains a letter I sent to project participants about a month ago. This has some general summary information from the 1998-9 sample.

I hope you find these documents useful. You can reach me at (518) 899-9083 if you need to call. I will be in the field until late afternoon today.

Jeff Loukmas
Research Support Specialist
Cornell University



ATT00016.html



Mammaldata.xls



Trapperfollowup2000.d

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NEW YORK COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT
DEPARTMENT OF NATURAL RESOURCES
FERNOW HALL, CORNELL UNIVERSITY
ITHACA, NY 14853

Cooperating Agencies:

CORNELL UNIVERSITY
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WILDLIFE MANAGEMENT INSTITUTE
U.S. GEOLOGICAL SURVEY

Dear project collaborator,

The 1999 – 2000 trapping season resulted in another successful collection of animals for the Hudson River contaminant monitoring project. Thanks to all project participants, especially the trappers who were so helpful with donating carcasses. The following is a general project update. If you supplied animals last season, specific information on these animals can be found on page 3.

From November 1998 – April 2000 a total of 289 mink, 70 muskrats, and 46 otters were collected within the New York State Department of Environmental Conservation Regions 3, 4 and 5 (Table 1).

Table 1. Number of mink, muskrats, and otters collected from counties within NYS DEC Regions 3, 4 and 5, 1998 - 2000.

County	Species					
	Mink		Muskrat		Otter	
	1998 - 1999	1999 - 2000	1998 - 1999	1999 - 2000	1998 - 1999	1999 - 2000
Herkimer	0	0	0	0	6	0
Hamilton	35	4	1	0	6	0
Essex	1	0	0	0	0	1
Warren	35	23	3	0	0	7
Saratoga	16	61	24	1	2	12
Washington	17	8	0	2	1	1
Albany	0	0	0	0	1	0
Rensselaer	13	27	23	14	3	2
Columbia	12	5	3	0	1	0
Fulton	11	8	0	0	0	0
Montgomery	5	2	0	0	1	0
Schoharie	3	3	0	0	0	0
Westchester	0	0	0	0	0	2
Total	148	141	54	16	21	25

We selected 106 mink, 46 otters, and 20 muskrats from this sample (1998 – 2000) for contaminant analysis. Liver samples from these specimens are currently being analyzed for PCBs, organochlorine pesticides, and metals (mercury, lead, cadmium). Initial PCB data from 1998 – 1999 have been received (Table 2). The initial PCB data for the 1999 – 2000 specimens should be available before June 2001. A comprehensive analysis of this data may not be available until 2002 - I'll keep you updated.

Table 2. Average total Aroclor PCB levels (lipid-adjusted) in 63 mink, 21 otters, and 6 muskrats from counties within NYS DEC Regions 3, 4 and 5, 1998 - 1999.

County	Species					
	Mink		Muskrat		Otter	
	Average Total PCBs (ppm)	Range	Average Total PCBs (ppm)	Range	Average Total PCBs (ppm)	Range
Herkimer					4.97	3.69 - 7.20
Hamilton	0.97	0.69 - 1.29	ND ^a		3.41	1.51 - 6.20
Essex	1.20	0.89 - 1.451				
Warren	4.78	0.71 - 13.11	ND			
Saratoga	10.51	0.60 - 80.57	ND		101.17	1.98 - 200.37
Washington	1.94	0.29 - 3.86			8.31	
Albany					18.54	
Rensselaer	2.75	1.07 - 3.87			39.09	30.96 - 47.87
Columbia	2.47	0.12 - 7.36			11.24	
Montgomery	7.43	2.59 - 15.00			168.00	

^a Not detected

(Note: Our initial health effect criteria are: PCB levels <9 ppm = no/minimal effect, 9 - 21 ppm = potential negative health effects, 21 - 50 ppm = probable negative health effects, >50 ppm = potential reproductive failure).

For the 2000 - 2001 trapping season, we are interested in mink from the southern reach of the Hudson River watershed (south of Columbia and Greene counties) and otter from the entire watershed. If you would like to contribute carcasses to the study, or have any questions about the project, please feel free to call me at **800-341-5772**.

Regards,

Jeff Loukmas
Research Support Specialist
Cooperative Fish and Wildlife Research Unit
Cornell University

Specimen	Town	County	CAPT.DATE	Cd (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Aroclor (mg/kg ww)	% Lipids	Aroclor (mg/kg lipid adjusted)
Mink									
1008	INDIAN LAKE	Hamilton	19981114	0.045	0.043	0.274	0.031	3.7	0.8597
1010	INDIAN LAKE	Hamilton	19981103	0.096	0.099	0.423	0.025	2.3	1.117
1014	MINERVA	Essex	19981107	0.386	0.017	1.29	0.041	2.8	1.4514
1020	INDIAN LAKE	Hamilton	19981103	0.154	0.166	1.11	0.022	2.2	1.0045
1021	LAKE PLEASANT	Hamilton	19981115	0.452	0.036	0.427	0.015	1.9	0.7788
1022	JOHNSBURG	Warren	19981111	0.406	0.032	0.533	0.021	2.2	0.9682
1027	LAKE PLEASANT	Hamilton	19981103	0.611	0.101	3.61	0.055	4.2	1.2993
1030	LAKE PLEASANT	Hamilton	19981106	0.327	0.083	8.8	0.028	3	0.9235
1031	INDIAN LAKE	Essex	19981116	0.345	0.01	2.22	0.026	2.9	0.897
1032	CHESTER	Warren	19981116	0.124	0.034	1.58	0.195	4.3	4.5395
1033	INDIAN LAKE	Hamilton	19981104	0.048	0.014	0.718	0.021	1.9	1.1158
1035	MINERVA	Essex	19981107	0.075	0.034	0.709	0.027	2.1	1.2643
1036	LAKE PLEASANT	Hamilton	19981108	0.16	0.059	2.1	0.031	4.5	0.6976
1044	STILLWATER	Saratoga	19980730	0.228	0.055	2.62	0.699	2.3	30.39
1048	STILLWATER	Saratoga	1989/1993	0.254	0.097	1.7	0.209	3.3	6.3362
1049	STILLWATER	Saratoga	1989	0.206	0.095	0.641	3.062	3.8	80.5789
1050	STILLWATER	Saratoga	19900830	0.021	0.03	0.22	0.141	2.2	6.4091
1051	CHESTER	Warren	19981202	0.066	0.01	1.29	0.024	2.1	1.1548
1055	THURMAN	Warren	19981112	0.045	0.01	1.03	0.032	1.9	1.7302
1060	LAKE LUZERNE	Warren	19981113	0.262	0.091	1.02	0.207	2.3	9
1061	DAY	Saratoga	19981113	0.194	0.094	0.615	0.456	4.2	10.8571
1062	QUEENSBURY	Warren	19981113	0.325	0.205	2.04	0.354	2.7	13.1144
1063	LAKE LUZERNE	Warren	19981113	0.102	0.033	1.5	0.086	2.5	3.44
1064	QUEENSBURY	Warren	19981120	0.113	0.041	1.29	0.12	4.1	2.9488
1065	LAKE LUZERNE	Warren	19981130	0.062	0.017	2.26	0.049	2.3	2.1452
1066	LAKE LUZERNE	Warren	19981207	0.505	0.172	1.29	0.467	4.2	11.12
1067	HARTFORD	Washington	19981201	0.087	0.034	0.167	0.0089	3	0.298
1068	HARTFORD	Washington	19981203	0.121	0.014	0.324	0.0086	2.5	0.344
1069	HARTFORD	Washington	19981204	0.097	ND	0.275	0.02	1.7	1.1876
1070	PALATINE	Montgomery	19981210	0.112	0.18	1.09	0.184	7.1	2.5986
1075	ST JOHNSVILLE	Montgomery	19981219	0.148	0.039	4.15	0.647	4.3	15.0442
1076	PALATINE	Montgomery	19981204	0.06	0.022	0.283	0.237	5.1	4.6529
1077	THURMAN	Warren	19981115	0.056	0.065	2.55	0.89	2.8	3.1821
1085	SALEM	Washington	19981209	0.155	0.023	0.967	0.094	2.5	3.772
1086	SALEM	Washington	19981211	0.183	0.067	0.792	0.043	4.4	0.9839
1089	SALEM	Washington	19981203	0.194	0.02	0.693	0.112	2.9	3.8621
1090	SALEM	Washington	19981202	0.18	0.012	0.62	0.029	2.4	1.2304
1093	SALEM	Washington	19981130	0.1	0.008	0.419	0.102	2.8	3.6729
1094	SALEM	Washington	19981214	0.085	0.008	1.18	0.063	2.3	2.7565
1096	CHESTER	Warren	19981202	0.066	0.014	2.34	0.179	3.9	4.6051
1097	THURMAN	Warren	19981129	0.051	0.037	2.55	0.166	2	8.31
1099	SARATOGA	Saratoga	19981222	0.072	0.077	0.806	0.037	1.7	2.1847
1100	SARATOGA	Saratoga	19981206	0.045	0.01	0.4	0.0237	2.4	0.988
1101	SARATOGA	Saratoga	19981220	0.132	0.065	0.839	0.025	1.8	1.385
1102	SARATOGA	Saratoga	19981214	0.117	0.086	2.06	0.114	9.2	1.2413
1103	SARATOGA	Saratoga	19981217	0.136	0.124	0.758	0.023	3.55	0.6715
1104	SARATOGA	Saratoga	19981130	0.157	0.019	0.828	0.063	3.3	1.9136
1105	SARATOGA	Saratoga	19981204	0.05	0.019	0.358	0.022	3.7	0.607
1106	SARATOGA	Saratoga	19981201	0.062	0.026	2.45	0.349	3.2	10.9219
1107	CLAVERTACK	Columbia	19981218	0.06	0.043	0.718	0.041	2.7	1.5463
1109	AUSTERLITZ	Columbia	19981209	0.027	ND	0.144	0.008	6.4	0.1278
1111	LIVINGSTON	Columbia	19981221	0.039	ND	0.939	0.162	2.2	7.3682
1113	HILLSDALE	Columbia	19990109	0.027	0.017	0.937	0.028	3.35	0.8418
1115	AUSTERLITZ	Columbia	19981225	0.022	0.014	0.946	0.043	1.75	2.4706
1119	WARRENSBURG	Warren	19990603	0.038	0.03	0.804	0.017	2.5	0.716
1128	GREENWICH	Washington	19990128	0.109	0.082	0.91	0.048	3.6	1.3567
1129	PITTSOWN	Saratoga	19990305	0.058	0.055	2.28	0.063	3.1	2.0516
1130	HALFMOON	Rensselaer	199903	0.023	0.016	0.68	0.087	3	2.903
1133	PITTSOWN	Rensselaer	199903	0.032	0.067	0.841	0.083	3.2	2.594
1138	PITTSOWN	Rensselaer	199903	0.081	0.324	0.945	0.0429	4	1.073
1139	PITTSOWN	Rensselaer	199903	0.053	0.056	2.34	0.077	2	3.875
1141	PITTSOWN	Rensselaer	199903	0.14	0.056	2.34	0.1	3	3.353
1148		Saratoga	19990621	0.297	0.06	3.01	0.031	2.6	1.188
1149	NORTHUMBERLAND	SARATOGA	19991102						
1150	MOREAU	SARATOGA	19991102						
1151	GREENFIELD	SARATOGA	19991123						
1152	NORTHUMBERLAND	SARATOGA	19991103						
1153	CORINTH	SARATOGA	19991104						
1155	GREENFIELD	SARATOGA	19991109						
1156	MOREAU	SARATOGA	19991106						
1157	NORTHUMBERLAND	SARATOGA	19991106						
1158	CORINTH	SARATOGA	19991107						
1159	NORTHUMBERLAND	SARATOGA	19991105				0.019		
1160	GREENFIELD	SARATOGA	19991102				0.015	0.78	1.923
1163	CORINTH	SARATOGA	19991111				0.021	2.5	0.84
1164	MOREAU	SARATOGA	19991111				0.32	1.9	16.842
1166	MALTA	SARATOGA	19991203				0.085	0.98	8.673
1167	HALFMOON	SARATOGA	19991123				0.195	2.1	9.286
1191	LAKE LUZERNE	WARREN	19991103				0.051	2.1	2.429
1194	KINGSBURY	WASHINGTON	19991205				0.117	1.5	7.8
1195	GREENWICH	WASHINGTON	19991208				3.336	2.4	139
1196	EASTON	WASHINGTON	19991209				0.624	2.15	29.023
1197	EASTON	WASHINGTON	199912				1.272	3.02	42.119
1198	KINGSBURY	WASHINGTON	19991211				0.4554	4.21	10.817
1199	KINGSBURY	WASHINGTON	19991211				0.146	3.74	3.903
1217	KINGSBURY	WASHINGTON	19991230				0.107	2.9	3.69

Specimen	Town	County	CAPT.DATE	Cd (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Aroclor (mg/kg ww)	% Lipids	Aroclor (mg/kg lipid adjusted)
1219	KINGSBURY	WASHINGTON	19991222				0.049	3.2	1.531
1223	CORINTH	SARATOGA	199911				0.0658	6.7	0.982
1224	QUEENSBURY	WARREN	199911				1.27	2.9	43.793
1234	KINGSBURY	WASHINGTON	199911				0.24064	4.5	5.347
1237	SARATOGA	SARATOGA	19991208				0.226	2.5	9.04
1238	SARATOGA	SARATOGA	19991129				0.05	3.1	1.613
1239	SARATOGA	SARATOGA	19991201				0.0173	3.2	0.54
1240	SARATOGA	SARATOGA	19991129				0.066	3	2.2
1242	SCHUYLERVILLE	SARATOGA	19991204				0.291	3.61	8.061
1243	SCHUYLERVILLE	SARATOGA	19991214				0.04	2.88	1.388
1244	SARATOGA	SARATOGA	19991206				0.083	2.7	3.074
1252	SCHAGHTICOKE	RENSSELAER	20000107				0.049	2.8	1.75
1260	STILLWATER	SARATOGA	199902				0.063	4.24	1.486
1281	STOCKPORT	COLUMBIA	200003				1.364	3.3	41.333
1282	STOCKPORT	COLUMBIA	200003				0.043	5.3	0.811
1285			20000119				0.0798	4.7	1.697
Specimen	Town	County	CAPT.DATE	Cd (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Aroclor (mg/kg ww)	% Lipids	Aroclor (mg/kg lipid adjusted)
Otter									
3001	MINDEN	Montgomery	19981202	0.148	0.043	1.21	4.2	2.5	168
3002	GALWAY	Saratoga	19981204	0.011	0.02	0.907	0.0297	1.5	1.98
3003	NASSAU	Rensselaer	19971130	0.011	0.174	0.858	1.196	2.5	47.872
3004	NASSAU	Rensselaer	19971202	0.016	0.349	0.998	1.16	3.85	30.966
3005	NORTH GREENBUSH	Rensselaer	19980106	0.026	0.031	1.05	0.861	2.24	38.455
3006	CHATHAM	Columbia	19981222	0.021	0.017	0.77	0.416	3.7	11.243
3007	JACKSON	Washington	19990204	0.026	0.024	1.84	0.182	2.19	8.311
3008	COHUES	Albany	19990318	0.028	0.059	1.82	0.7	3.861	18.544
3009	INLET	Hamilton	199903	0.27	0.055	2.81	0.0385	2.55	1.514
3010	INLET	Hamilton	19990226	0.447	0.048	3.97	0.085	2.7	3.148
3011	OHIO	Herkimer	199903	0.158	0.036	1.57	0.135	2.9	4.655
3012	OHIO	Herkimer	199903	0.062	0.043	1.47	0.173	2.4	7.204
3013	OHIO	Herkimer	199903	0.178	0.034	5.79	0.129	3.5	3.694
3014	LONG LAKE	Hamilton	199903	0.062	0.058	3.85	0.233	4.9	4.773
3015	WEBB	Herkimer	199903	0.076	0.06	2.4	0.107	2.7	3.952
3016	INLET	Hamilton	199903	0.247	0.025	4.43	0.146	2.35	6.206
3017	INLET	Hamilton	199903	0.327	0.055	2.02	0.065	2.1	3.078
3018	OHIO	Herkimer	199903	0.201	0.023	3.1	0.135	2.5	5.38
3019	OHIO	Herkimer	199903	0.463	0.039	4.15	0.158	3.2	4.938
3020	INDIAN LAKE	Hamilton	19981123	0.1	0.013	2.04	0.033	1.85	1.784
3021	HALFMOON	Saratoga	199903	0.026	0.147	1.14	4.4	2.2	200.373
3022	BOLTON	WARREN	19990323						
3023	JOHNSBURG	WARREN	19991024						
3024	LAKE LUZERNE	WARREN	19991202						
3025	WARRENSBURG	WARREN	19991129						
3026	EDINBURG	SARATOGA	19991210				0.09075	3.2	2.835
3027	EDINBURG	SARATOGA	19991215				0.187	8.1	2.301
3028	DAY	SARATOGA	19991213				0.466	2.9	16.069
3029	MINERVA	ESSEX	19991124				0.118	3.1	3.806
3030	JACKSON	WASHINGTON	199912				0.038	2.9	1.31
3031	HORICON	WARREN	19991208				0.11	6.8	1.618
3032	PROVIDENCE	SARATOGA	199912						
3033	PROVIDENCE	SARATOGA	199912						
3034	PROVIDENCE	SARATOGA	199912				0.1791	3.21	5.579
3035	NORTHUMBERLAND	SARATOGA	199912				1.079	2.93	36.82
3036	NORTHUMBERLAND	SARATOGA	19991116						
3037	BRUNSWICK	RENSSELAER	20000301				0.099	3.01	3.289
3038	PITTSBURGH	RENSSELAER	20000305				0.234	4.03	5.806
3039	BEDFORD	WESTCHESTER	200001				0.86	3.45	24.92
3040	BEDFORD	WESTCHESTER	200001				1.199	4.12	29.102
3041	QUEENSBURY	WARREN	20000331						
3042	QUEENSBURY	WARREN	20000331				1.25	2.56	48.828
3043	DAY	SARATOGA	199912						
3044	DAY	SARATOGA	199912				0.061	3.62	1.685
3045	DAY	SARATOGA	199912						
3046	DAY	SARATOGA	199912						
Muskrat									
2001		Warren	19981104	0.014	0.009	ND	ND	3	0
2002		Hamilton	19981116	0.095	0.016	ND	ND	6.2	0
2003		Warren	19981116	0.065	0.009	0.0027	ND	2.5	0
2004		Warren	19981102	0.024	0.015	0.0092	ND	2.8	0
2013		Rensselaer	199903	0.056	0.011	0.0014			
2016		Rensselaer	199903	0.062	0.008	0.0013			
2019		Rensselaer	199903	0.047	0.009	0.0036			
2023		Rensselaer	199903	0.041	0.003	0.0013			
2032		Saratoga	199903				ND	2.8	0
2034		Saratoga	199903	0.359	0.006	0.0027			
2036		Saratoga	199903	0.006	0.006	ND	ND	2.5	0
2037		Saratoga	199903	ND	0.005	0.0032	ND	3.179	0
2039		Saratoga	199903	0.034	0.021	0.0017			
2041		Saratoga	199903	0.128	0.094	0.615			
2045		Saratoga	19991031						
2046		Saratoga	19991130						
2047		Saratoga	19991128						
2053		Rensselaer	199912						
2059		Rensselaer	199912						