

## Biomonitoring and Aquatic Studies Section

Ranch Brook 1.5

## Ambient Biomonitoring Summary Report

Town: Stowe

Site ID 493238200015

WBID: VT08-12

Drainage Area (km2): 9.9

Latitude: 44.50361

Longitude 72.78194

Elevation (ft): 1240

Description: 2005 RotHex site. Located below first bridge crossing in Mansfield state park about 50m

Sample Date	9/14/2000	9/4/2001	9/9/2002	9/9/2003	9/7/2004	9/14/2005	9/11/2006	9/7/2007	9/4/2008	9/1/2009
Lab ID	2000.192	2001.019	2002.037	2003.036	2004.061	2005.060	2006.035	2007.018	2008.020	2009.013
Sampling Method	KN	KN	KN	KN	KN	KN	KN	KN	KN	KN
* Density/Unit	1196	1058	1408	1656	334	696	992	862	349	833
* Species Richness	45	40	41	46	41	41	51	47.5	40	36
* EPT Richness	20	24	20	21	21	22	26	23.5	21.5	20
EPT/Richness	0.44	0.6	0.49	0.46	0.51	0.54	0.5	0.5	0.54	0.55
E / P / T Richness	6 / 8 / 12	4 / 8 / 17	4 / 6 / 10	6 / 6 / 9	2 / 5 / 14	5 / 6 / 11	7 / 8 / 12	6 / 7 / 15	5 / 8 / 14	3 / 9 / 10
* EPT / EPTChiro	0.73	0.71	0.69	0.72	0.63	0.77	0.64	0.61	0.8	0.66
BI (0-5)	1.14	1.45	1.54	1.34	1.7	1.43	1.59	1.88	1.15	1.79
* BI (0-10)	2.03	2.66	2.73	2.32	3.08	2.25	2.96	3.21	1.82	3.23
Diversity	4.41	4.38	4.16	4.17	4.61	4.49	4.64	4.7	4.17	4.45
Hydopsy %	1.6	2.04	1.42	2.41	0.72	3.45	0.81	3.49	2	0.29
Dominant Taxa %	15.6	11.7	17.9	28	9.4	13.8	14.7	14.6	25	15.3
Dominant 3 Taxa %	38.7	33	43.5	45.4	26.6	35.5	34.1	33.2	43.5	33.7
Coleoptera %	0.9	0.3	1.7	1.2	11.2	11.1	5.2	5.9	5.2	1.4
Diptera %	27.7	32.5	34.1	29.2	38.8	25.7	35.3	43.1	23.2	40.1
Ephemeroptera %	14.8	24.2	17.6	11.6	8.3	15.4	14.9	20.4	14.5	23.6
Trichoptera %	27.7	23.9	17.9	39.4	24.1	30.5	13.1	14.3	11.7	8.6
Plecoptera %	23.6	18.7	28.4	10.6	16.9	17.2	24	14.6	43.6	22.8
* Oligochaeta %	5	0.5	0.3	7.7	0.7	0	6.7	1.5	1.3	3.5
OtherOrders %	0.3	0	0	0.2	0	0	0.8	0.1	0.4	0
* PMA-O1	83	82.3	78	71.4	77.3	88.1	74.3	75.2	71.6	74.1
Collector Gatherer %	31.9	47.3	42.6	39.6	37	30.8	43.5	51.8	30.6	51.9
Collector Filterer %	16.7	13.5	14.5	32.8	11.2	10.9	9.7	9.2	6.4	7.5
Predator %	24.6	21.7	27.3	11.4	23.7	14.6	23.6	18.5	36.9	21
Shredder - Detritus %	13.7	13.8	10.5	10.6	12.9	26.3	12.5	10.9	19	14.1
Shredder - Herbivore %	1.2	0.2	1.4	0.5	0	0	1	0.6	0.5	0
Scraper %	2.2	1.5	2.6	3.9	14.7	15.4	6.5	8.8	6.1	2.3
* PPCS-F1	0.72	0.58	0.64	0.57	0.65	0.62	0.73	0.68	0.59	0.51
Community Assessmt	Vgood	Exc	Ex-Vgood	Vgood	Exc	Exc	VGood	Ex-Vgood	Exc	Ex-Vgood

\* = Most important metrics