FAUNTLEROY CREEK BENTHIC STUDY

ARBOR HEIGHTS ELEMENTARY SCHOOL, OCT. 9, 2008 Lynn Barnicle, teacher

DATA COLLECTION SUMMARY

For the eighth October, intermediate students from Arbor Heights Elementary School performed data collection surveys in Fauntleroy Park and upper Fauntleroy Creek at Fenton Glen. The goals of this project are to teach students the elements of a healthy watershed, to demonstrate how to be stewards of the local watershed, and to help evaluate the general health of the creek.

22 students participated in garbage collecting, plant identification, photo documentation, and data collection. Informal scientific protocol was followed to gather and identify macroinvertebrates. Students took readings to determine pH, nitrite, and dissolved oxygen levels, as well as temperature. Another team took measurements of the stream channel. Students also observed plant species and human impact.

OBSERVATIONS

Water chemistry was similar to prior years. Temperature was the lowest in five years - back in the healthy range for salmonids. Depth was down from last year but still higher than most years. The channel at the study site had widened considerably.

The overall macroinvertebrate count was up slightly this year and about average for the course of this study. Indicators of good-quality water (stoneflies, mayflies, and caddis flies) were also about average. Specimens were too small to measure with any certainty.

Garbage consisted of a few cans and wrappers; students saw no pet waste. By comparison, five years ago students carried out two large garbage bags full of bottles and paper debris. During their walk through the park, students noted spiders, squirrels, and birds and also a clump of what they took to be coyote fur.

HABITAT CONDITIONS

	2002	2003	2004	2005	2006	2007	2008
Dissolved oxygen	8 ppm	8 ppm	-----	8-10 ppm	-----	4 ppm	8 ppm
Nitrite	0 ppm	0 ppm	-----	-----	-----	5 ppm	5 ppm
pH	-----	-----	-----	-----	7.8	8	8
Phosphates						>1 ppm	0
Water temp.	52F/11C	50F/10C	55F/18C	59F/15C	57F/14C	55F/13C	50F/10C
Water depth	6 cm	4-7 cm	8 cm	5-1/4 cm	?	17 cm	11 cm
Channel width	30 in.	39.25 in.	49 in.	44 in.	?	28.5 in.	58.5 in.

MACROINVERTEBRATES

	2002	2003	2004	2005	2006	2007	2008
Stonefly larvae	4 (>1.5cm)	3 (>.5 cm)	3 (>1.5cm)	2	3	1	6
Mayfly larvae	6 (>1 cm)	2 (>.5cm)	2 (>1 cm)	0	0	5 (>.25 cm)	0
Caddis fly larvae	1	1	1	3	0	2	2
Worms	1	1	1	4	4	1	3
Black fly larvae	0	2 (>.5cm)	0	0	0	0	0
Midge fly larvae	0	2 (>.5cm)	0	0	0	0	0
Too small to ID or unable to ID					4	0	1
Total count	12	11	7	9	11	9	12