

Interesting Findings from January Insect Monitoring

Two sites in Dimond Park show very different insect counts

On January 8th, eight volunteers performed samplings of Sausal Creek for aquatic benthic macroinvertebrates in a continuing effort to assess the overall health of the creek. Benthic Macroinvertebrates (BMI's) are animals without backbones, such as insects, worms, and snails that live in the creek for some or all of their life cycle.

We sampled two separate sites in Dimond Park: a section of the creek just below El Centro across from the Tot Lot, and a section below Wellington Street, on the other side of the culvert. This site is of particular interest to us because of the upcoming "day-lighting" of the section of the creek below Wellington Street. We want to get good before-and-after samples to see what effect the restoration has on that section of the creek.



The Wellington site team: Lou, Amit, Travis, and Gene
Not shown, the Children's Play Structure team: May, Michelle, Carol, and Kathleen

The sampling consisted of three "kick samples" at each of the locations. To perform a kick sample, one volunteer positions a net across an area where the water is flowing nicely. Then a second volunteer disturbs the area just upstream of the net, moving the rocks, and digging fingers into the sand and sediment to get all of the little invertebrates that live in the rocks and sand into the net. Next, the net is emptied into a bin, and the invertebrates are sorted and counted according to the type of organism that they are. Finally, the invertebrates are placed back into the creek, so they can continue with their lives.

We found interesting differences between the two sites, although these sites are not really that far apart. Here's what we found (and here's a link to an EPA document that more fully explains what we're doing here, <http://water.epa.gov/scitech/monitoring/rsl/bioassessment/ch07b.cfm>):

	below Wellington	Children's Play Structure
total BMI's (all of the organisms we saw)	28	238
total insects (just counting insects)	10	205
% insects	36%	86%
EPT total (Ephemeroptera/ Plecoptera/Trichoptera–sensitive families of insects)	3	155
% EPT	11%	65%
Total Taxa (total different types of Organisms seen—an index of diversity)	8	12

You can see that there are some differences in our data between sites. What does it mean? It certainly seems like there are far fewer organisms below Wellington Street, and that the types of organisms found are different in the two sampling sites.

But, of course, this is only one sample. So we need to repeat sampling at these sites at least one more time. And this data doesn't tell us anything about WHY these differences occur.

Our next sampling is Sunday, February 5th (9 a.m.-1 p.m., meet at the Scout Hut in Dimond Park). We are going up into Joaquin Miller Park to sample an area that was part of the bioassessment effort some years back. That site will be away from roads and culverts. We will also continue sampling in Dimond Park to get an idea of the numbers and types of organisms we can expect to find in the creek.

You can join us! Contact Kathleen Harris: e-mail kathalini@comcast.net.