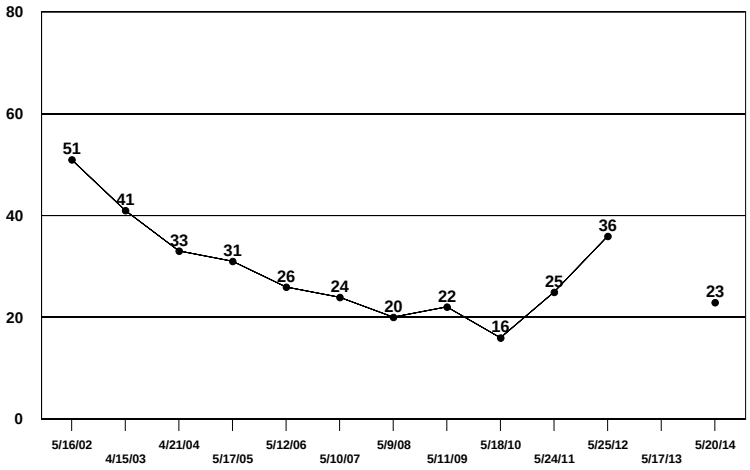
2014 STONEFLY EXOSKELETON COUNT
FAUNTLEROY CREEK

Sixth-grade science students from Our Lady of Guadalupe School conducted the annual stonefly exoskeleton count on May 20. The students followed protocol to the letter, avoiding the unreliability of data in 2013. Teams counted all stonefly exoskeletons they could find on trees, bushes, bridges, and fences in the study area. The measuring team accurately measured 22 torsos to find longest, shortest, and mean (average) size.

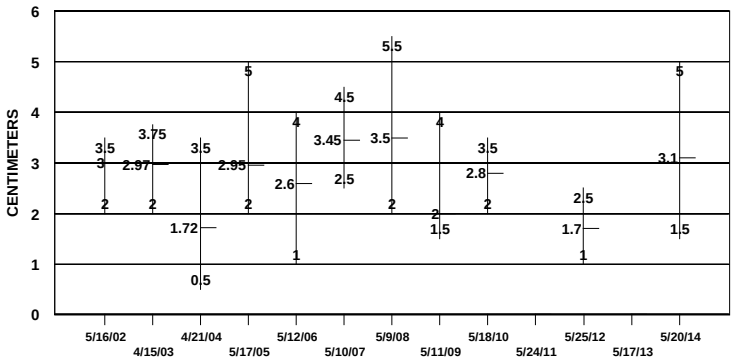
FINDINGS

NUMBER OF STONEFLY EXOSKELETONS
FAUNTLEROY CREEK



Study area: between "S" turns due upstream of the first bridge and the entrance to the fish ladder downstream

LENGTH OF STONEFLY EXOSKELETONS
TORSO LENGTH AND MEAN
FAUNTLEROY CREEK



Study area: between "S" turns due upstream of the first bridge and the entrance to the fish ladder downstream

In about 15 minutes of search time, students were able to locate 23 exoskeletons – nine on trees, 114 on bridges, and none on bushes or fences. All were congregated on or near the bridge just upstream of the fish ladder. Compared with other years, size was typical.

RELEVANT RESEARCH

In the fall of 2012, an exceptional 274 spawners came into the creek between the fish ladder and the next street (45th Ave. SW). Given the location of the study area, nutrients from all of those carcasses would have been available to stonefly and other aquatic larva in the study area since November 2012. In sampling conducted in fall 2014, this same class of students found scant macroinvertebrates, however, – just 1 stonefly, 1 worm, and 3 too small to identify.

OBSERVATIONS

Factors that may have contributed to this year's findings include

- given the low abundance of stonefly larva of any identifiable size in the fall, the number molting in the spring would predictably be low.
- "home hatch" fry present in the study area since early 2013 could have eaten most of the larva, leaving few stonefly to exit the creek and leave their exoskeletons behind.

SUGGESTIONS

- Allow more time to survey the study area for exoskeletons.
- Dispatch survey teams in waves to reduce the number of people in the study area at one time, thus reducing the chance of knocking exoskeletons to the ground, where they would be missed.
- Devise a mirror on a pole to use to look for exoskeletons under the bridges.
- Consider extending the study area.
- Eliminate looking on bushes and assign one team to look instead on fences and on the ground at bridges and the horse chestnut tree, where exoskeletons have tended to congregate.