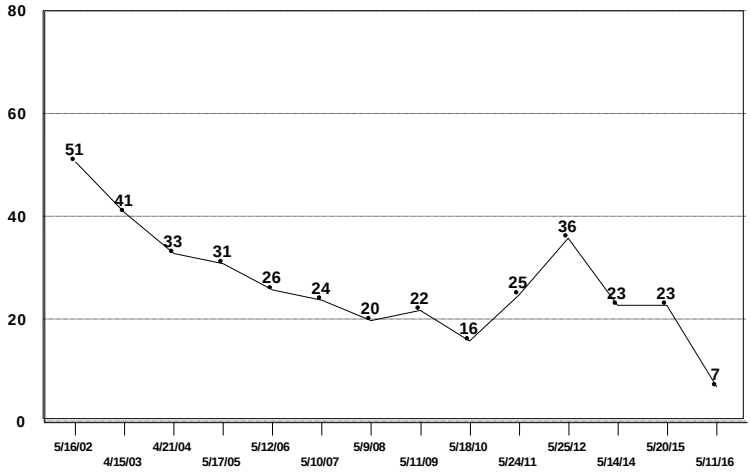
# 2016 STONEFLY EXOSKELETON COUNT
## FAUNTLEROY CREEK

Sixth-grade science students from Our Lady of Guadalupe School conducted the annual stonefly exoskeleton count in the designated study area on May 11, following established protocol, with teacher Nathan Franck. The count coincided with the school's annual salmon release in the upper creek. Teams counted all stonefly exoskeletons they could find on trees, on bridges, on a wooden fence that parallels the creek, and on the ground beside these structures. The measuring team measured all torsos to find longest, shortest, and mean (average) size.

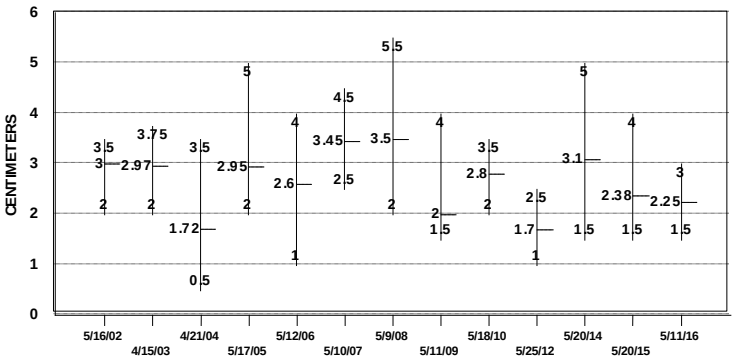
## FINDINGS

**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 located 28 exoskeletons- 14 on one tree, 14 on the underside of bridges, and none on the ground. Mean size was comparable to other years, with a narrower range from smallest to largest.

## RELEVANT INFORMATION

- Only seven coho spawners came into the creek in the fall of 2016. Nutrients from their carcasses would have been available to stonefly and other aquatic larva in the study area.
- In benthic sampling conducted by this same class in October 2016, just before spawning season, they found 35 macroinvertebrates (more than 10 times the 2014 number). Two of the 35 were stonefly larva.
- Because of the lack of home hatch from fall spawning, any fry feeding in the study area would have had to drift down from the upper creek.

## OBSERVATIONS

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

- Because of the lack of carcasses to provide nutrients, macroinvertebrates in the reach would have had less food than in years with spawners and thus would have been less plentiful.
- Volunteers spotted several stonefly exoskeletons earlier in the spring, suggesting that they exited the creek before this count.

## SUGGESTIONS

- Schedule the count and release in late April/early May.
- Consider unlinking the count and release so the count can be done by mid April. If taking time away from the classroom proves unfeasible, consider designating a half-dozen students to do the count after hours.