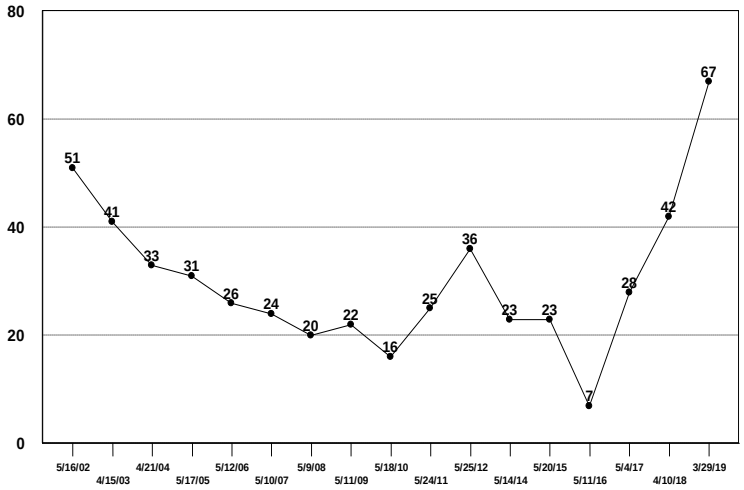
2019 STONEFLY EXOSKELETON COUNT
FAUNTLEROY CREEK

Sixth-grade science students from Our Lady of Guadalupe School followed established protocol to conduct the annual stonefly exoskeleton count in lower Fauntleroy Creek on March 26 with teacher Sarah Nadalin. Jonathan Frodge, limnologist with Seattle Public Utilities, was present as a resource for student researchers.

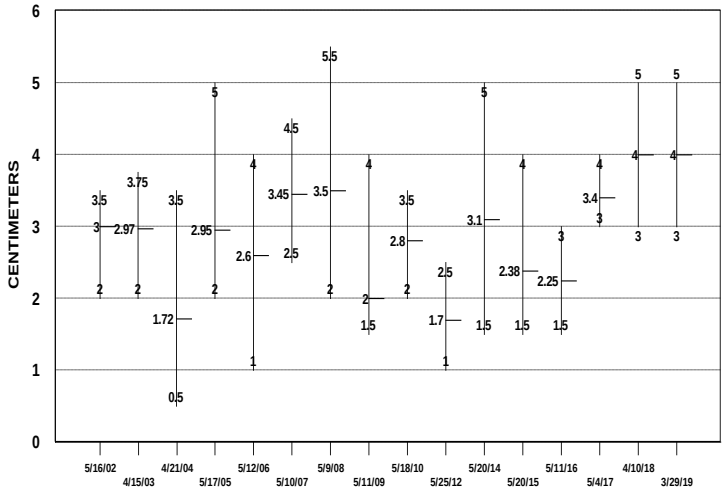
The count was earlier than in prior years because exoskeletons are being observed earlier. Research teams counted all stonefly exoskeletons they could find on trees, bridges, fences adjacent to the channel and on the ground by those wooden structures. A fourth team measured 10 torsos to find longest, shortest, and mean size.

FINDINGS

NUMBER OF STONEFLY EXOSKELETONS
FAUNTLEROY CREEK



LENGTH OF STONEFLY EXOSKELETONS
TORSO LENGTH & MEAN, FAUNTLEROY CREEK



In about 15 minutes of search time, students located 67 exoskeletons - 22 on trees, 32 on bridges, and 13 on fences and the ground. With a range from 3 cm to 5 cm, longest and shortest were identical to 2018, and the mean was just over 4 cm.

RELEVANT INFORMATION

- Eighteen coho spawners came into the lower creek in fall 2018. Nutrients from their carcasses would have been available to stonefly and other aquatic larva in the lower part of the study area.
- On March 9, volunteer monitors began seeing home-hatch fry in the lower part of the study area.
- Those monitors began seeing exoskeletons in the study area on March 15.
- Rainfall two weeks prior to this count was moderate - not heavy enough to have swept away exoskeletons..

STUDENT OBSERVATIONS

- Moving up the count date may have been warranted.
- Home-hatch fry have been searching for food and may have eaten some of the stonefly larva before they had a chance to climb out of the water.
- The counting accuracy of students may vary, affecting the accuracy of teams counts.
- Size range was typical of recent years, suggesting similar growth conditions.

SUGGESTIONS

- Continue this count in late March to build up comparable data over time.
- Emphasize that students are to work as a cohesive team while counting, not as individuals or pairs.
- Show students an example of a stonefly exoskeleton before they count.