

2022 STONEFLY EXOSKELETON COUNT

FAUNTLEROY CREEK

Because bringing an entire class on a school bus was still an issue during the coronavirus pandemic, we did the annual stonefly exoskeleton count on a weekend, when parents could drive students to the site. Twelve fourth-grader from Louisa Boren STEM met at the Pickens/Sweetland house on lower Fautleroy Creek. Timing of the count on March 27 was similar to recent years, as were methodology and study area. While there, students saw “home hatch” fry from last fall’s banner spawning season, as well as remains of spawner carcasses.

Volunteer Shannon Ninburg led the session, aided by Judy Pickens. Dennis Hinton helped students locate exoskeletons and demonstrated how the smolt trap was enabling documentation of the annual out-migration. Tom Trulin took photos and video. Teachers Marie Clevering, Elizabeth Mahrt, and parents assisted.

After discussing stonefly behavior and molting processes, the students divided into four groups, each with a worksheet. One group counted exoskeletons on bridges, another on trees, and a third on fences, bushes, and the ground. The fourth group measured exoskeleton torsos and used 10 to determine longest, shortest, and average length. Shannon showed updated charts, and all discussed exoskeleton locations, size, and other aspects of interest. Students were very engaged and contributed lots of observations and theories.

FINDINGS

- The total count was 62 - 32 on trees, 29 on bridges, and 1 on fences/ bushes/ ground.
- The shortest torso of the 10 counted was 3 cm, and the longest was 6 cm, for an average of 4 cm. The longest was a 20-year record.

RELEVANT INFORMATION

- The weather was sunny, with a high of 63 degrees. Trace amounts of rain had fallen in recent days.
- Stonefly nymphs would have benefitted from the abundance of nutrients left by last fall’s 244 spawners.

OBSERVATIONS

Most exos found on trees and bridges were at the downstream end of the study area. All but one of the exos found on trees were on the large horse chestnut there. Students speculated that perhaps this tree was more moist, or its smooth bark was appealing to stoneflies. One student theorized that shady areas could be more attractive to stoneflies because they stayed moist longer, or that emerging adults were better camouflaged in darker areas.

RECOMMENDATION

Devise a more engaging way to group students as the fence/ground/bush team found just one exoskeleton.

