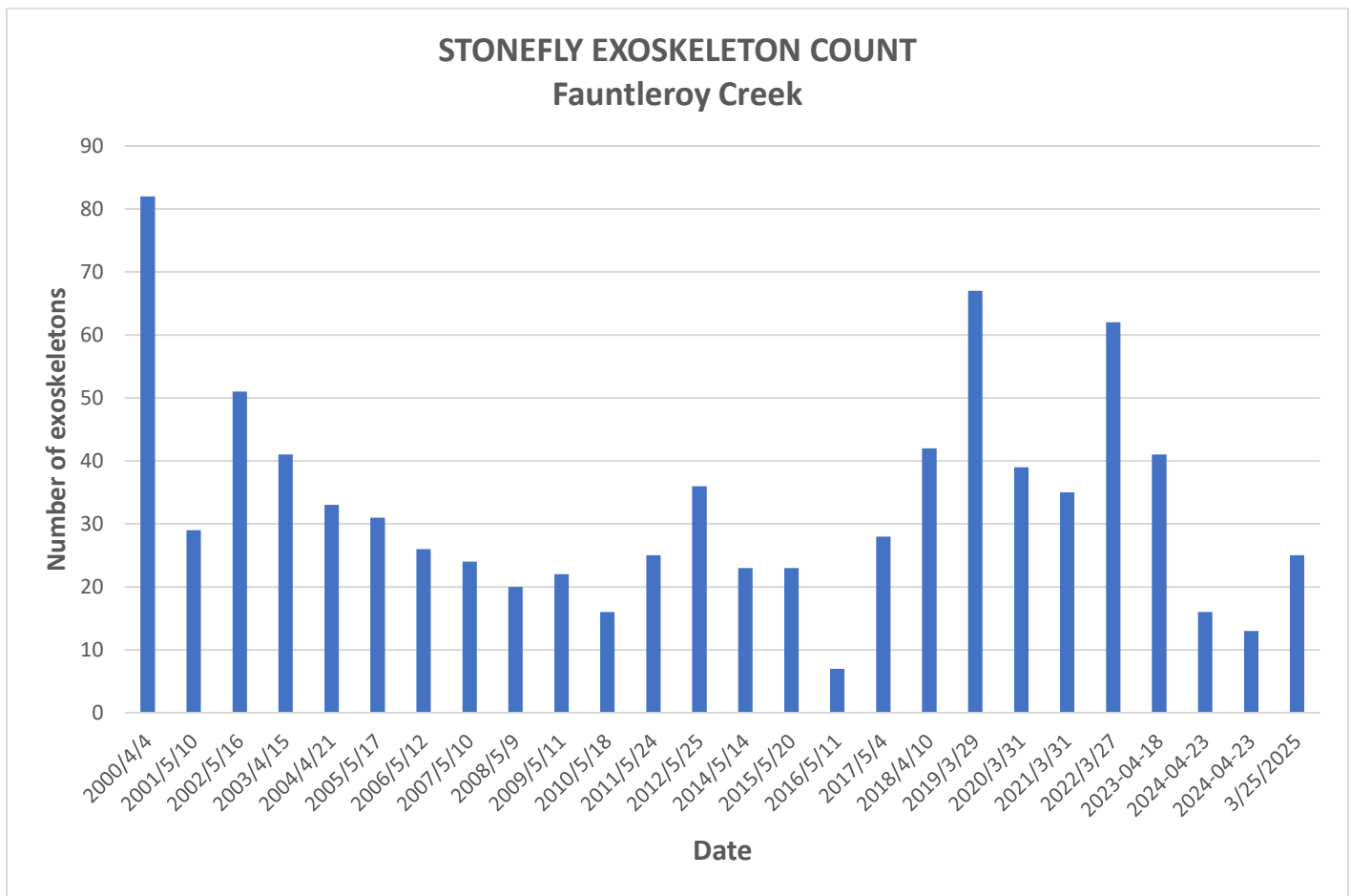


2025 STONEFLY EXOSKELETON COUNT

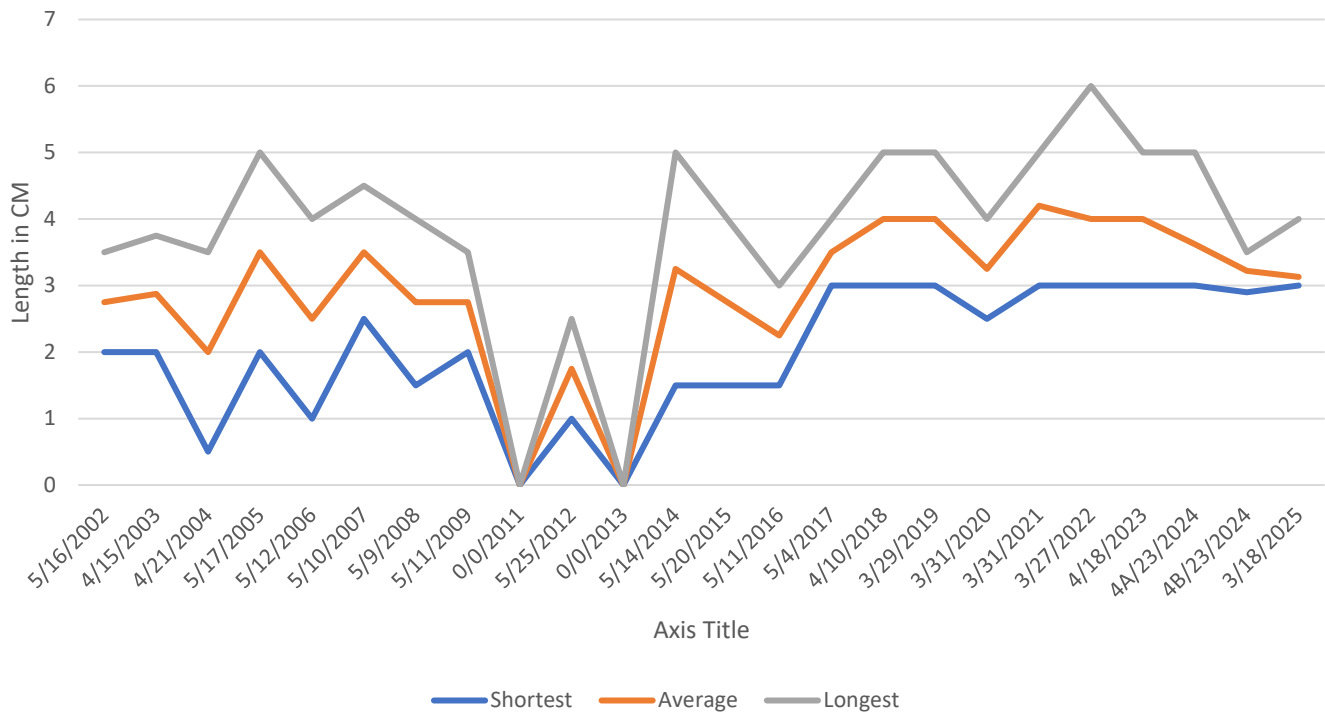
LOUISA BOREN STEM K-8, March 18, 2025 Zachery Elway, teacher

Because having two fourth-grade classes engage in this study at once proved to be too many students to enable all to participate, this year we decided that one class would do the spring exoskeleton count and the other would do the fall benthic macroinvertebrate sampling. Twenty four students arrived school bus at the Fautleroy Church/YMCA parking lot and volunteer naturalist Shannon Ninburg walked everyone to the Pickens/Sweetland house in lower Fautleroy Creek. Dennis Hinton was on hand to assist the teacher and parent chaperones.

Shannon led a discussion about stonefly behavior and showed photos of nymph, molting, and adult stoneflies. Four teams of students then took worksheets down to the designated study area to count exoskeletons on (1) bridges, (2) trees, (3) fences/bushes/ground, and (4) measure 10 torsos. Teams was equipped with flashlights to improve visibility in dark places. After completing this information gathering, the students reconvened to present their findings and make observations over lunch. Students were very engaged group and contributed interesting observations and theories.



Stonefly Exoskeleton Size: Longest/Shortest/Average Fauntleroy Creek



FINDINGS

- The total exoskeleton count was 25: 12 on trees, 10 on bridges, and 3 on fences/bushes/ground.
- The shortest torso of the 10 measured was 3 cm and the longest was 4 cm, for an average of 3.13 cm.

RELEVANT INFORMATION

The weather was partly sunny, 52 degrees F, and dry during the activity.

OBSERVATIONS

- More exos were found this year than last in the upper portion of the study area, though the majority were in the lower portion.
- All of the exos found on trees were on the large horse chestnut tree near the fish ladder. When students learned that finding had been the case almost every year, one surmised that, since its trunk is so broad, maybe exoskeletons dry fast on it. Another noted that most were found on the sunniest side. Another hypothesized that, because not many were found in dark places elsewhere, maybe exoskeletons don't dry well in dark places.

An adult stonefly then flew by, giving all a view of that stage of its life cycle!

RECOMMENDATION FOR NEXT YEAR

Continue this study with one class as that number of students proved to be very manageable.