

Bugs in Our Beds

Objective:

This year we decided to assess how our streams react during a typical year. Since this year had no large amounts of rainfall or heavy storms we wanted to see what bugs remained from last year and which ones left. By using this information, we plan to alter our streams next year, and see if we can recover some of our lost bugs. Our Hypothesis is that if we create a better Caddisfly community for our bugs next year, then we will regain most of our Caddisfly numbers back, without directly impacting our Mayfly numbers.

Procedure:

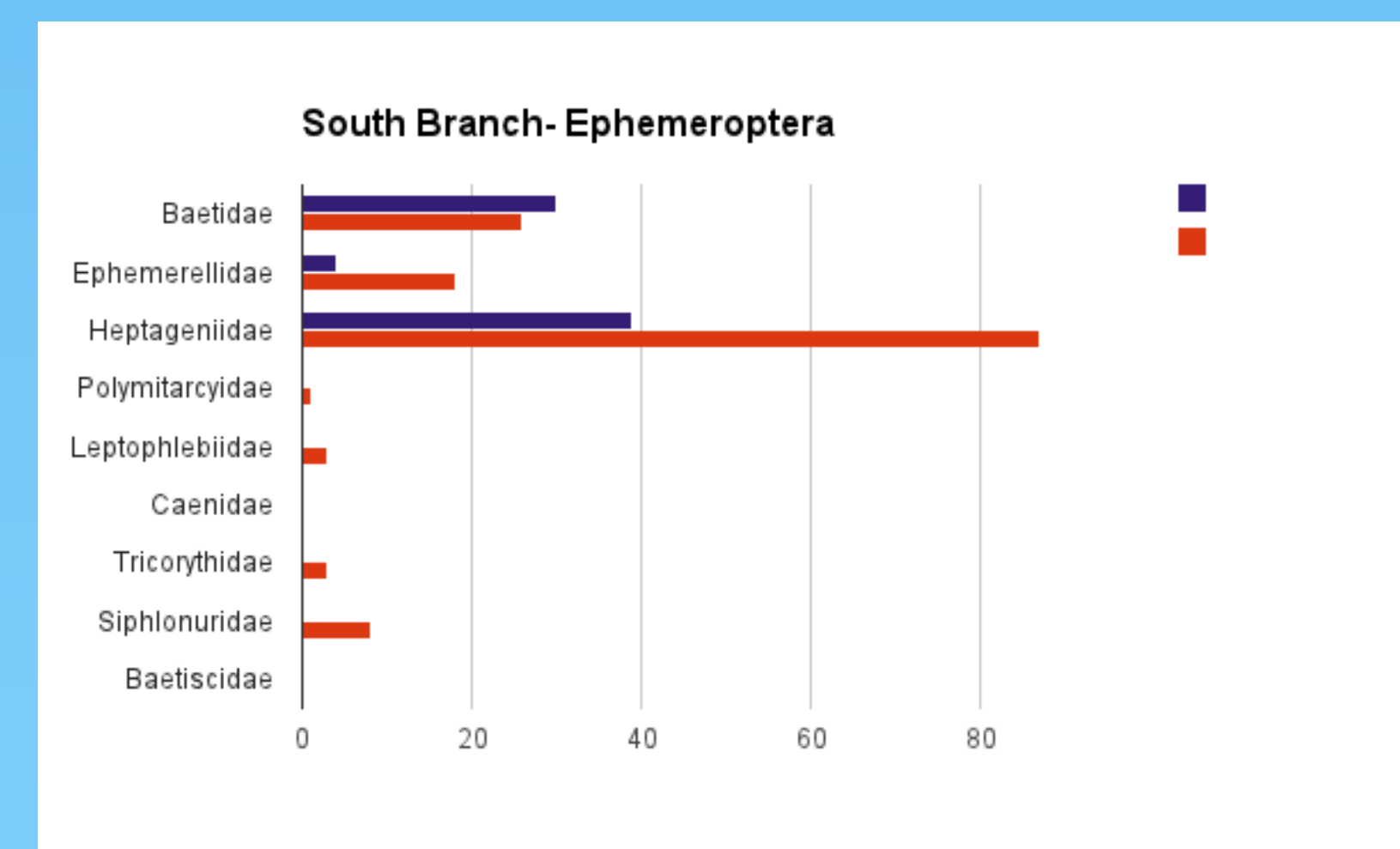
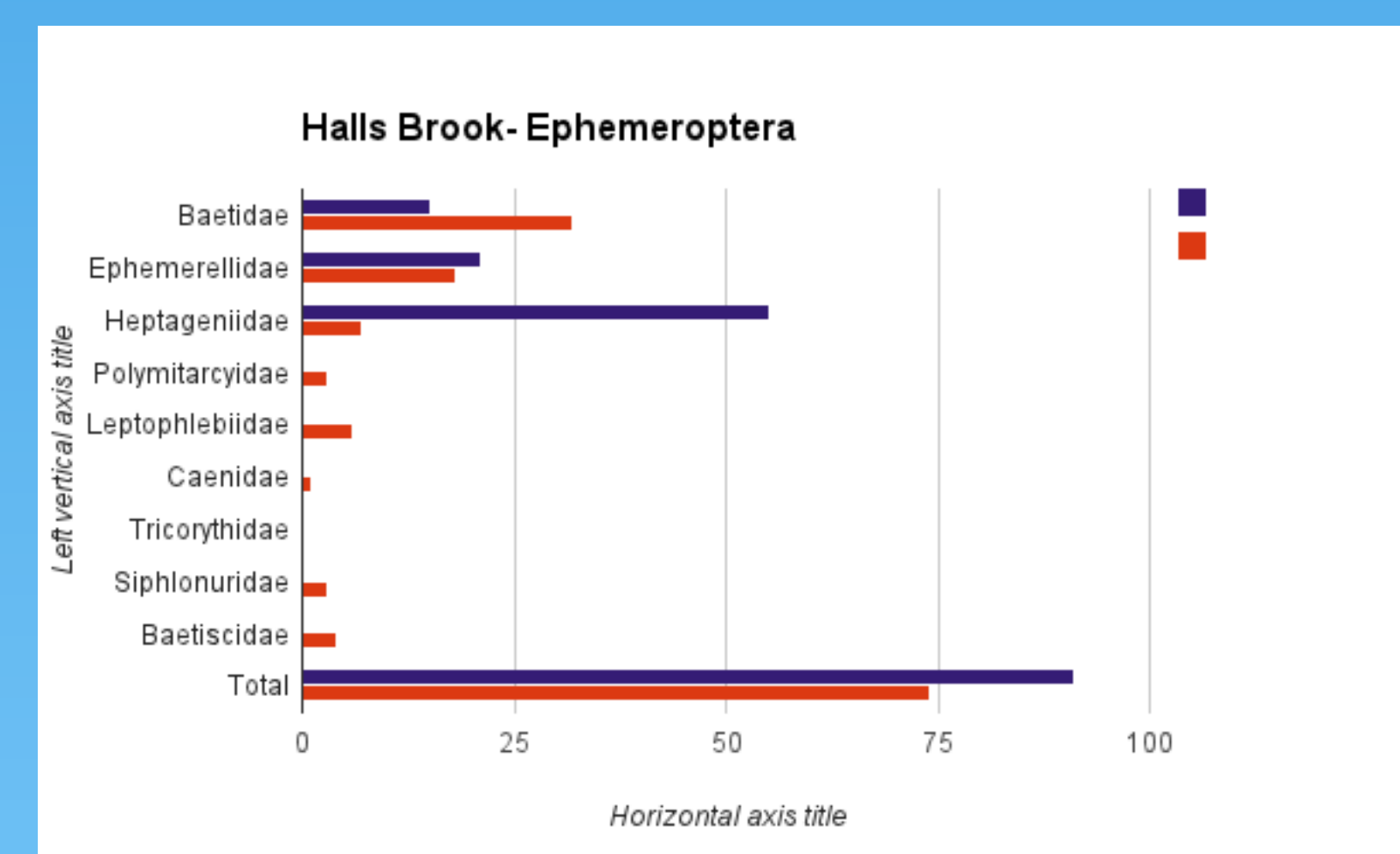
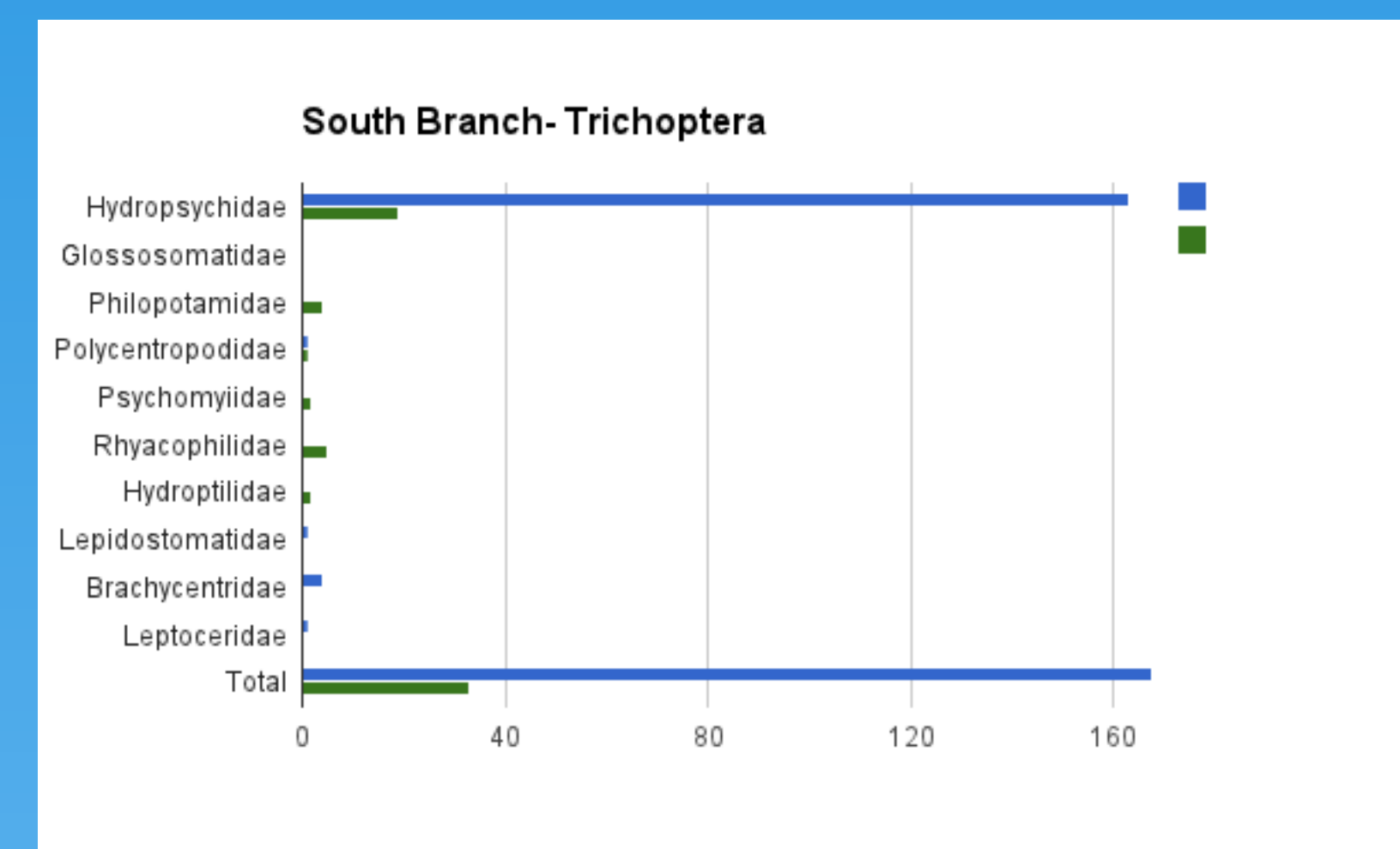
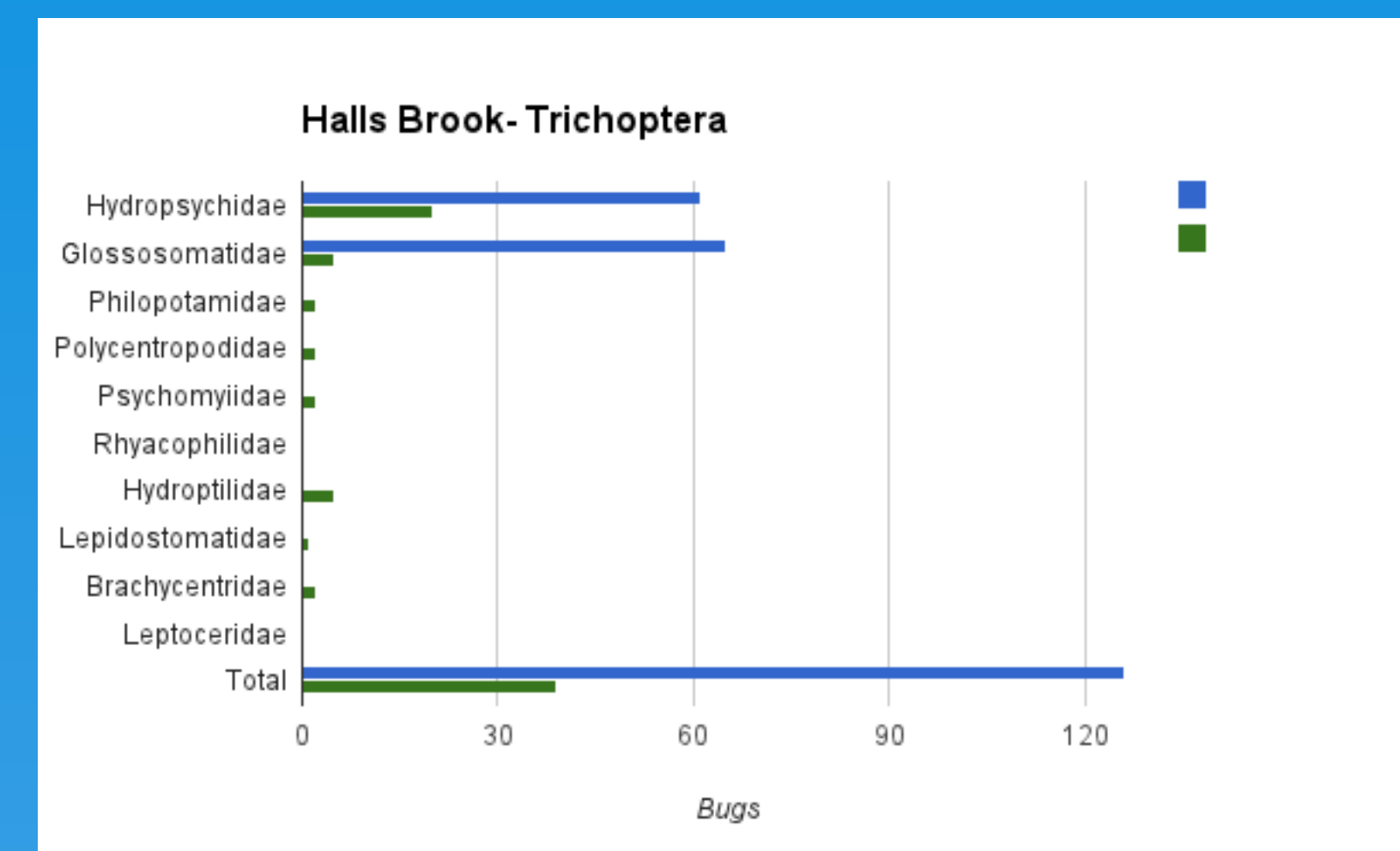
Our streams project started by going to our stream sites. While we were there we assessed our stream and collected our samples. When we returned to our school we spent many days picking our samples and identifying bugs. From there we looked at last years numbers in comparisin to this year. Mainly we were looking for what was missing, and what had remained.

Observations:

We found that while last year had an abundance of Caddisflies, this year did not. Mayflies were the most popular bug in both of our streams this year. Caddisflies like to live in clean lakes or streams, but they need materials to make their homes out of. Due to heavy rainfall, last year we had a large increase in plant material in the streams. This could be associated with why we had such a large amount of Caddisflies.

Results and Conclusions:

Both Caddisflies and Mayflies are found in clean water. Due to a drop in Caddisflies, but and increase in Mayflies leads us to believe this is not due to water quality. Mayflies do not require matericals for building homes, so they were not affected directly by the lack of plant materials in the stream. Next year we plan to maintain our Mayfly numbers, yet increase our Caddisfly numbers by altering our stream. This will declare whether or not our loss of many Caddisflies is directly related to water quality or not.



Ephemeroptera
Baetidae:



Ephemeroptera
Ephemerellidae:



Ephemeroptera Heptageniidae:



Trichoptera Hydropsychidae :



Rachel Emerson gathering macroinvertebrates.

Trichoptera Polycentropodidae:



Trichoptera Glossosomatidae



WORK CITED:

Saint Michaels College.
"Macroinvertebrates of Vermont Rivers."
Macroinvertebrates of Vermont Rivers. Vermont EPSCoR and The National Science Foundation, 2008. Web. 28 Mar. 2012.
<http://academics.smcvt.edu/Vermont_rivers/>.