Macroinvertebrates

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INTRODUCTION

The project I researched was based on the effect of weather on macroinvertebrates. When the weather changes, the water insects can be affected. The weather condition we mainly focused on was precipitation.

We knew that there are different types and amounts of macroinvertebrates in all types of areas.

Hypothesis: How does weather conditions affect the different types and amount of macroinvertebrates in rivers?

A

B

Figure A. The Mill River in Hamden, CT the first site investigated. Waters are high and in parts faster.
Figure B. Image of Wintergreen brooke in New Haven, CT water is lower and in most parts slower.

MATERIALS AND METHODS

Macroinvertebrate collection & Identification

- Hamden, CT Mill River, and New Haven, CT Wintergreen Brook.
  - ➢ Wintergreen Brook: wet, damp. no trees still had leaves on them.
  - ➢ Mill River: Sunnier, brighter, more open. Cleaner and clearer waters
- "Crawdad Shuffle" used to collect Macroinvertebrates.
- Identifying the multiple types of macroinvertebrates there were using the internet, books, and sheets.

Materials
- Plastic spoon
- Pipette
- Square clear containers
- Water Squirter
- Net

Figure C. Above is a picture of the materials used for the project. Other figures beside it is materials too, and Idiriya and Lisa identifying specimens.

MACROINVERTEBRATE DIVERSITY

The graph below shows the results of the diversity of macroinvertebrates, it shows where they were located and how many of were found. There was more diversity of macroinvertebates in the Mill River than the Wintergreen Brook.
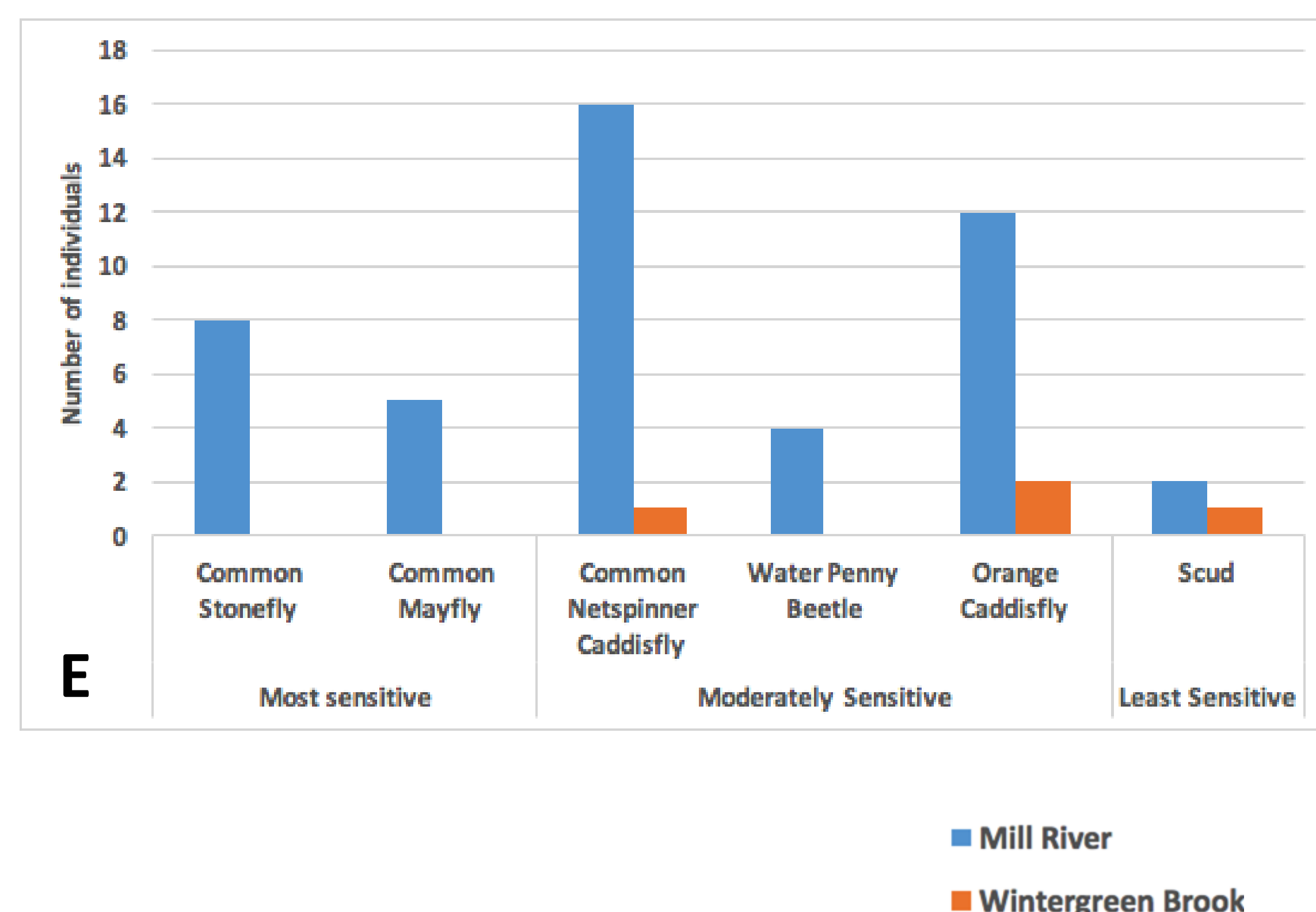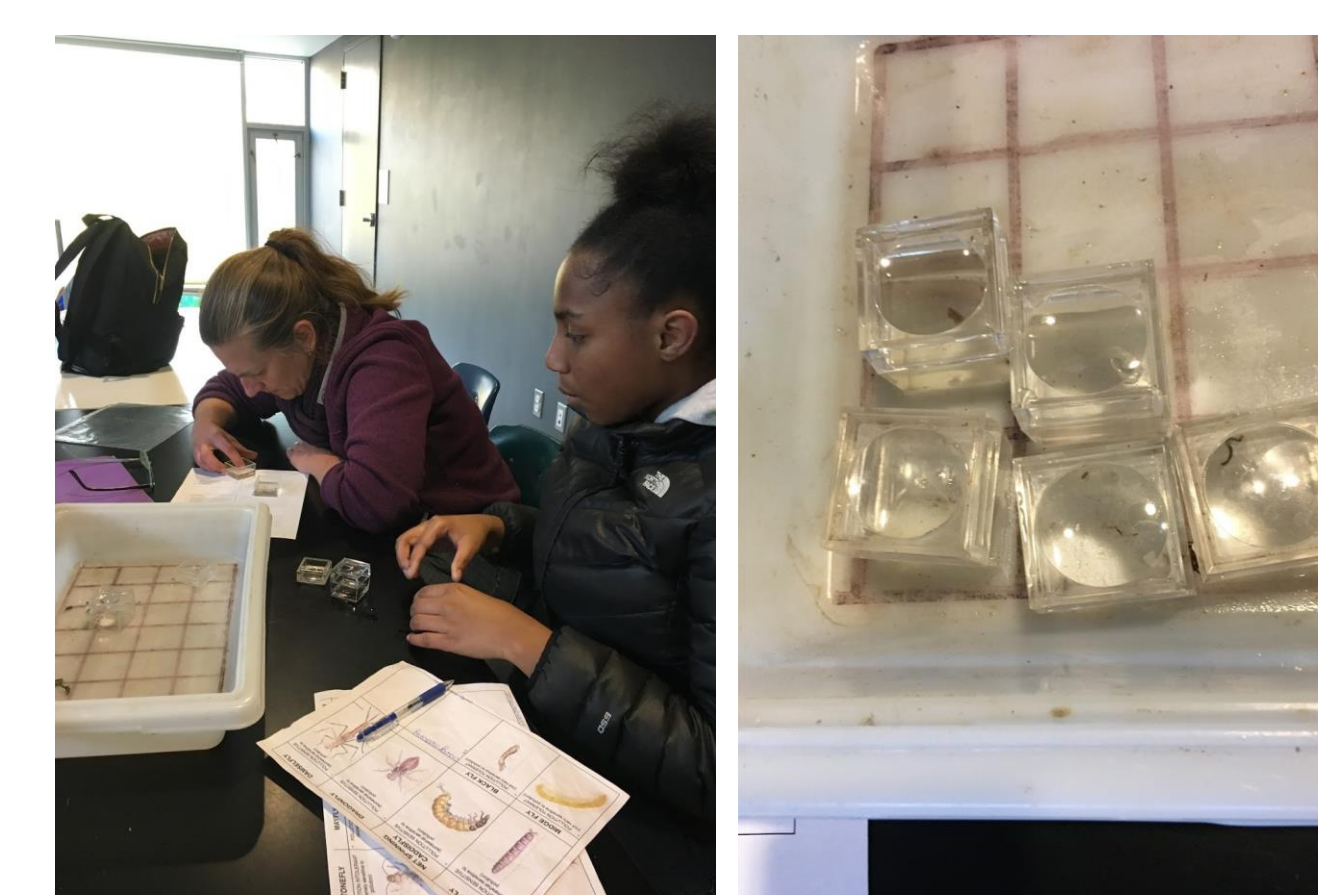

E

Figure E. The graph represents the diversity and amount of each macroinvertebrate found in both sites. Categorized between Most, Moderately and Least sensitive as specified by CT DEEP.

PRECIPITATION RESULTS

The rain precipitation data collected that followed days before the research collection was takes place.

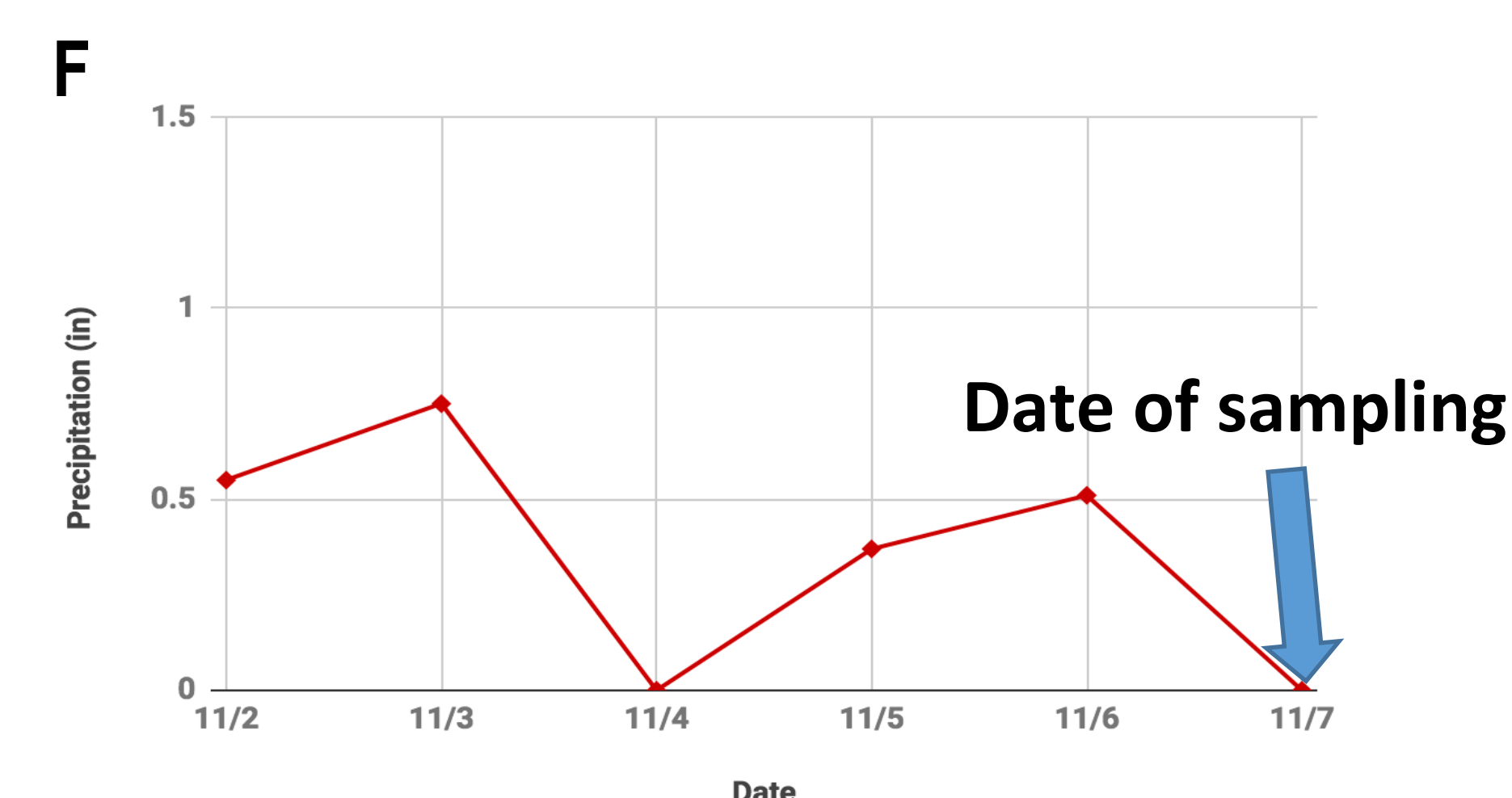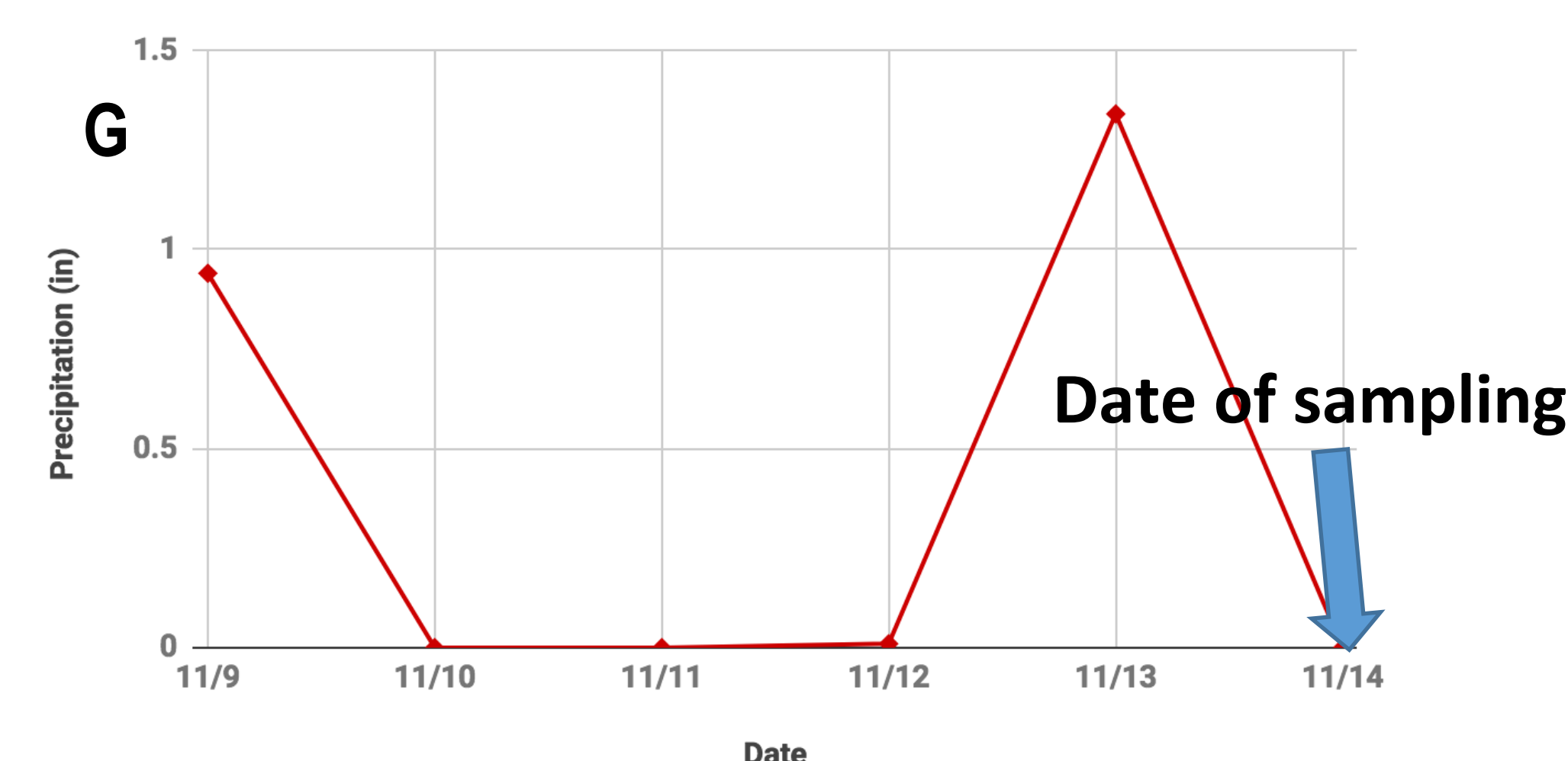**Precipitation before Mill River sampling**

F

Date of sampling

Figure F. The precipitation during the week, between November 2-7, before sampling at Mill River on Nov 7.

Figure G. The precipitation during the week, between November 9-14, before sampling at Wintergreen Brook on Nov 14.

Precipitation before Wintergreen Brook sampling

G

Date of sampling

CONCLUSIONS

This project was mainly investigated because there has been a recent and probably even longer loss of many water insects, due to the fact of waste in water. The location of some watersheds (i.e under highways, highly polluted and dangerous areas), and harsh weather conditions (heavy snow, rain showers) are factors that could be contributing to a decrease in macroinvertebrates. This project gives a better look into that phenomena.

ACKNOWLEDGEMENTS

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REFERENCES

All photos were taken by either Lisa DiFrancesco or Abby Beissinger.