

Science Project Quad Chart

Q1: Research Question

Does leaf litter piles in streams cause macroinvertebrate populations to decrease during the Fall season?

Q3: Data Analysis & Results

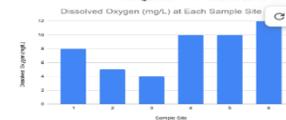


Figure 1. The amount of dissolved oxygen (mg/L) at each site.

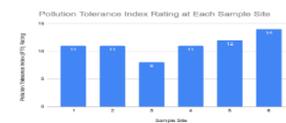


Figure 2. The final Pollution Tolerance Index (PTI) Rating at each sample site.

- All sites were fair or poor.
- All sites had good dissolved oxygen, except site 3.

Q2: Methodology

- Macroinvertebrate sampling using Hoosier Riverwatch procedure.
- Dissolved Oxygen readings using a kit
- Pollution Tolerance Index (PTI) rating using Hoosier Riverwatch data sheet.

Q4: Interpretation & Conclusions

- Possible reasons for low water quality:
- the macroinvertebrates have already entered their adult stage.
 - freshly fallen leaf litter is not ready to be eaten by macroinvertebrates.
 - sensitive macroinvertebrates do not always feed on leaf litter.
 - leaf litter can block sunlight, decreasing food production for macroinvertebrates.
 - leaf litter can cause many nutrients in the water.
 - leaf litter can slow down stream flow.
 - the streams are going through natural seasonal changes