Name_____
Period and Date_____
Field Biology

Field Study Write-Up

Question you are analyzing and 2-3 sentences on why you are interested in this subject:

What is the relationship between the type of streambed surface and the number of aquatic macro-invertebrates? We wanted to see if the streambed surface had any affect on what organisms live there. It is interesting to find out what type of surface certain aquatic macro-invertebrates prefer if any.

Background Info:

1. List 5 of the aquatic macro-invertebrates that live in Jackson creek.

2. List 3 examples of what the aquatic macro-invertebrates of Jackson creek consume.

3. Describe using a sketch or several sentences describing the role that aquatic macro-invertebrates play in the food web.

4. Describe or draw the habitat that the aquatic macro-invertebrates live in. Include at least 3 abiotic and 2 biotic factors that you think might have an effect on the aquatic macro-invertebrates and label them.

Methods: (describe how you carried out/did your study)

We collected and counted the number of different types of organisms at 3 different sites. The first site had a rocky streambed, the second had a dirt/soil streambed and the last had kind of a mix between the two. We used the "kick" method to collect our organisms. Two people held the net downstream while another person stirred up the streambed just upstream from the net.

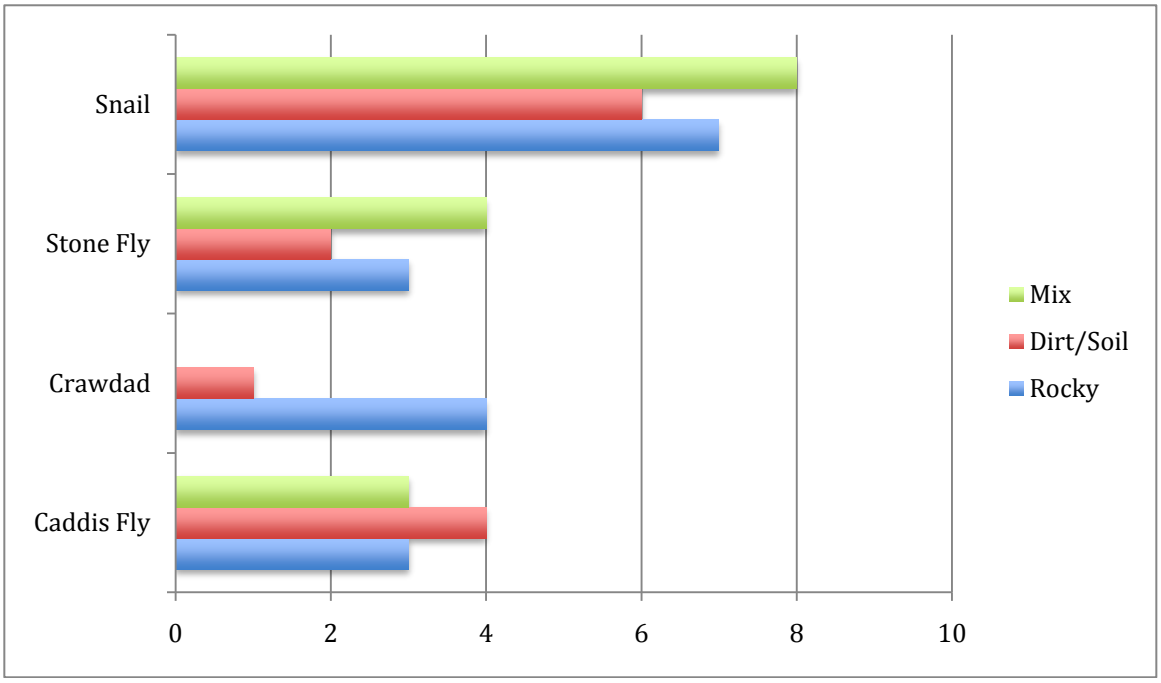
Data:

	Caddis fly	Crawdads	Stone fly	Snail
Rocky	**3**	**4**	**3**	**7**
Dirt/soil	**4**	**1**	**2**	**6**
Mix	**3**	**0**	**4**	**8**

Materials:
We will need the following:

Nets	Dissecting scopes	Our AMI portfolios
Rubber boots	Collection pans	5 gallon bucket

Analysis: (What have you found out based on the study? This should be a paragraph describing your results and it will need to include a graph of your data to support your conclusions. It should also list other factors that were not accounted for.)



The bar graph shows no trends or statistical differences in the number of three of the macro-invertebrates out of the four types collected in different streambed types. Therefore, we have concluded that there is no relationship between type of streambed surface and the number of snails, stoneflies, and snails present. We did find that there were a greater number of crawdads present in the rocky streambed area when compared to the other types of surfaces. So we have concluded that crawdads must prefer rocky streambeds

to ones consisting of dirt. Other factors that we did not control for or analyze are velocity of stream, differences in turbidity of the water, presence of plants in immediate area, or amount of sunlight. These factors also may have been influential in the number of aquatic macro-invertebrates collected.

Self Check: In order for you to ensure you have included all the important information needed in this write-up use this check list/rubric. Place a check in each area that you believe your write-up represents. This is the same criterion I will be grading this paper on also.

	4	3	2	1	0
Methods section	Excellent explanation. Enough information for someone's Grandmother to be able to replicate it.	All information present but inadequate order and confusing explanation.	Missing information. Not readily replicable by others.	Very limited information. Unable to decipher what was done by participant.	Missing. No information at all.
Data	Well organized. Precise and accurate.	Organized and accurate	Organized but limited in it's accuracy	Very limited data. Not complete.	Missing. No information at all.
Analysis	Thorough explanation of analytic process utilizing data to arrive at logical conclusions. Graph is present and is an appropriate display of data.	Explanation accurate but logic is hard to understand by reader. Graph is present and is an appropriate display of data.	Explanation is missing key connections between data and conclusions. Graph is present but missing some data.	Data and conclusion do not match in a logical manner. Graph is limiting and not representative of data.	Missing. No information at all.