CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)

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Project Number

22859

Project Title

Macroinvertebrates of Anderson and Robinson Creek

Abstract

Objectives/Goals

How does the population of macroinvertebrates differ in a seasonal stream vs. a year-round stream?

Methods/Materials

Materials

1) Meter stick; 2) Rubber boots; 3) Forceps; 4) Homemade net; 5) Log book; 6) Permanent marker; t Stop watch; 8) Bucket; 9) Flagging; 10) Net; 11) Field guides; 12) Thermometer.

Procedure

1. Find a good riffle or pool that is not being disturbed by construction or a road. 2. Place the thermometer in creek. 3. Place net in water and put rocks in the bottom pocket so no insects can escape from the bottom. 4. Start timer for 1 minute. 5. Stand in creek and kick substrate. 6. Turn over all the rocks and try to disturb 1 inch under the sand. 7. When time is up, take the rocks out of the net ax carefully raise it up. 8. Place net in a bucket. 9. Take the average depth of where you started kicking, where the net was placed and in the middle of those two. Also, don't forget to read the thermometer and record the temperature in the logbook. 10. Place flagging in the sand or tree to indicate where youx sampled. 11. Take sample to lab to identify and count.

Results

From our data we saw that there are a lot more Ephemeroptera insects than any other insect in both creeks. The second most found was Coleoptera followed by the Plecoptera and the Hemiptera which both hadt seven. We did not find any Odonata in any of the creeks. The total of Anderson Creek was 168 insects and the total of Robinson Creek was 152 insects. There were 9.5% more insects in Anderson Creek than inx Robison creek.

Conclusions/Discussion

From doing this project, we concluded that there were more aquatic Macro-invertebrates in Anderst Creek, the year-round stream. Anderson Creek had 168 insects and Robinson Creek had 152. There werex 9.5% more insects in Anderson Creek than in Robinson Creek. We could improve this project by making ten sites on each creek instead of five. The only problem we had is that sometimes the tails of the insects came off so they were harder to identify. We are planning to do another project that relates to this one so that we can learn more about the insects and the creeks.

Summary Statement

We collected, identified, counted and compared the populations of macroinvertebrates in two different stream enviornments

Help Received

sister helped edit report; used the school computer lab; got net materials and keying help on identifying macroinvertebrates from Mr. Woods

Preliminary