CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)

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Project Number

22674

Project Title

Do Dogs, Cats, or Humans Have the Most Bacteria in Their Mouths?

Abstract

Objectives/Goals

The objective of this study was to determine if dogs, cats, or humans have the most bacteria in their mouth. Dogs put their mouths in places where cats and humans would not. Therefore, dogs should have the most bacteria in their mouth.

Methods/Materials

To answer this question, saliva samples were collected from the mouths of 10 cats, 10 dogs, and t human subjects using clean cotton swabs or Q-tips. Each sample was then placed on a section of one of ten nutrient-dishes, each pre-marked with a section for a sample from a cat, a dog, a human, and a control with no sample. The nutrient dishes were stored in a dry, dark place for 9 days. The number of bacteria colonies in each of the four sections of each of the 10 nutrient dishes were counted and recorded every 3 days for a total of nine days.

Results

For each animal the number of colonies varied greatly. Dogs had an average of 53 bacteria colonies grow in the nutrient dish, cats had an average of 16 colonies, and humans had an average of 5 colonies. There were two dishes where the human had more bacteria than the cat and in some cases no bacteria grew.

Conclusions/Discussion

The data supported the hypothesis that dogs would have the most bacteria in their mouths. This is likely the case because humans brush their teeth daily but dogs and cats rarely get their teeth cleaned. Also, the number of colonies could have varied if the animal had just eaten. A cat#s mouth would have moret bacteria if they had just had something to eat, but cleaner if they just had something to drink. However, most important is the fact that dogs will eat just about anything. Can you believe that some people like to have their dogs lick their mouth and they don#t even wash it off afterwards?

Summary Statement

Bacteria growth in saliva samples from the mouth of 10 cats, 10 dogs, and 10 human subjects placed in nutrient-dishes was measured to see if dogs, cats, or humans have the most bacteria in their mouth.

Help Received

Mrs. Zemke provided nutrient dishes. Father helped format data plot and transfer digital photographs to the written report.