CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY

Name(s)
Kristen A. Aguanno

Project Number
S1001

Project Title
A Study Comparing the Posterior Motion of C. commersonii and O. orca

Abstract

Objectives/Goals
My goal was to find out if the up and down angles of posterior end motion of C. commersonii differ from the up and down angles of posterior end motion of O. orca.

Methods/Materials
I went to Sea World, San Diego and video taped at least five cycles of up and down posterior end motion for four C. commersonii and four O. orca. Then I played the footage on the computer and measured the maximum up and down posterior end angles by holding a transparent protractor up to the computer screen. I did five trials for four C. commersonii and five trials for O. orca for a total of twenty trials.

Results
My results were the total average up angle of posterior end motion for O. orca was 30 degrees and the total average down angle was 29 degrees. The total average up angle of posterior end motion for C. commersonii was 29 degrees and the total average down angle was 32 degrees.

Conclusions/Discussion
My hypothesis was wrong. The up and down angles of posterior end motion of C. commersonii differed (my hypothesis was that the angles would be the same) from the up and down angles of the posterior end motion of O. orca. Although the angle were close, I still consider them different. Comparing this data between these two animals help scientists to understand their predator/prey and evolutionary relationships.

Summary Statement
My project compared the up and down angles of the posterior end motion of C. commersonii and O. orca.

Help Received
Parents provided transportation to Sea World, San Diego and video recording equipment.