



**CALIFORNIA STATE SCIENCE FAIR  
2005 PROJECT SUMMARY**

<b>Name(s)</b> <b>Andrew S. Benson</b>	<b>Project Number</b> <b>J0903</b>
<b>Project Title</b> <b>What's the Best Aspect for Intertidal Life?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective was to learn whether or not the aspect of a rock or pier piling surface affected the abundance of algae, mussels, barnacles, limpets, etc. <b>Methods/Materials</b> I measured algal and animal abundance on all sides of five different rocks, and five different pier pilings, at the same intertidal height. A quadrat was used to obtain multiple measurements of abundance on north, south, east and west sides of rocks and pier pilings. Abundance ratings of 0-4 for animals, and a separate rating of 0-4 for algae, were averaged for each aspect. <b>Results</b> Algae grew most prominently on the south and west sides of rocks, and the south and east sides of pier pilings. There was a higher animal than algal abundance on the north side of rocks and pilings. There was much more animal growth on the pier pilings than there was algal growth. <b>Conclusions/Discussion</b> Algae and most intertidal organisms that live on rocks and pier pilings do not grow or live past a certain depth because of predation, food, and especially for algae, light. I believe that there was very little algae on the pier pilings because there is very little light and algae need light to photosynthesize. There was a lot of algal growth on the south side of both rocks and pier pilings because, in Santa Barbara the light is strongest from the south.	
<b>Summary Statement</b> I compared the abundance of intertidal life on different aspects of rocks and pier pilings .	
<b>Help Received</b> Dad helped carry out experiment; sister helped design board; mentor gave me reading material.	