



California Science Center  
**CALIFORNIA STATE SCIENCE FAIR**  
**2001 PROJECT SUMMARY**

<b>Your Name</b> (List all student names if multiple authors.) <b>Irene Bonner; Leslie Tokiwa</b>	<b>Science Fair Use Only</b>  <span style="font-size: 2em; font-weight: bold;">S1803</span>
<b>Project Title</b> (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) <b>Starving Anemones</b>	<b>Division</b> <u>S</u> Junior (6-8) <u>S</u> Senior (9-12)
<b>Preferred Category</b> (See page 5 for descriptions.) <b>18 - Zoology</b>	
<b>Abstract</b> (Include Objective, Methods, Results, Conclusion. See samples on page 14.) Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges. <p style="margin-top: 10px;">The purpose of this experiment was to discover if the Aggregating Anemone, <i>Anthopleura elegantissima</i>, is able to chemically detect where in the water a food source is located. The hypothesis was that the anemones that were not fed would move in the direction of those that were.</p> <p style="margin-top: 10px;">To determine this, two tanks were set up, each containing six anemones. The clonal form of <i>A. elegantissima</i> was used. In one tank all six <i>A. elegantissima</i> were fed, in the other, only those on one side of the tank. The movement of the anemones was recorded daily using a coordinate system. There were three tests, each consisting of five days.</p> <p style="margin-top: 10px;">The results were not expected: the anemones that were fed moved quite a bit more than those that weren't; in fact, the anemones that were not fed barely moved at all.</p> <p style="margin-top: 10px;">The experiment did not say anything conclusive about the chemical sensing abilities of anemones. Perhaps the experiment could have been set up differently to isolate the different behaviors (sensing food, moving in response to starvation, etc.) and by doing so be able to better determine what the anemones were capable of. It seems from the results that, despite research that seemed to indicate otherwise, the anemones were not able to sense the presence of food.</p>	
<b>Summary Statement</b> (In one sentence, state what your project is about.) The movement of <i>Anthopleura elegantissima</i> (anemones) in response to a food stimulus.	
<b>Help Received in Doing Project</b> (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4. Used aquariums at York School, advised in aquarium setup by Kim Kiest.	