



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

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<b>Project Title</b> Homing Behavior in Monkeyface Prickleback, <i>Cebidichthys violaceus</i>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> My main question was to see if Monkeyface pricklebacks could home by using their own chemical trail. I setup a choice experiment with clean and scented water in a tank. I found that the fish much more often went to the scented water than the unscented water.</p> <p><b>Methods/Materials</b> Eighteen fish were collected in the intertidal in Pacific Grove, and brought back to the lab. An aquarium was setup with three compartments, one contained the initial fish and two had clean and "scented" water where the fish could swim. Each test lasted ten minutes.</p> <p><b>Results</b> Six fish did not move and were not used in the analysis. Two fish swam to the unscented compartment, ten fish swam to the scented compartment. A Chi square test showed that this results was statistically significant.</p> <p><b>Conclusions/Discussion</b> My experiment shows that fish seem to be more attracted by water with a home smell, than unscented water. This may explain the homing behavior that has been described before in this species.</p>	
<b>Summary Statement</b> I studied homing behavior in Monkeyface prickleback fishes, with a choice experiment where fish would choose between clean or scented (home) water.	
<b>Help Received</b> Used lab equipment at the University of California Santa Cruz with my Dad.	