



**CALIFORNIA STATE SCIENCE FAIR  
2016 PROJECT SUMMARY**

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| <b>Name(s)</b><br><b>Sonya R. Cullen</b>   | <b>Project Number</b><br><br>36217 |
| <b>Project Title</b><br><b>Ghost Fishing</b>   |                                    |
| <b>Abstract</b><br><b>Objectives/Goals</b><br>The objective of this study was to find an alternative material for crab fishermen to use as the automated release system on crab pots.<br><b>Methods/Materials</b><br>PVC piping, rubber tubing, metal hooks, jute, hemp, nylon, and cotton twine. Checked deterioration on submerged twines over a 32 day period.<br><b>Results</b><br>The hemp twine (versus the nylon, jute, and cotton) broke first which indicated that it would be the best material for the crab fishermen to use as their automated release system.<br><b>Conclusions/Discussion</b><br>The study concluded that if all crab fishermen switch from using cotton twine, which takes over a month to break, to using hemp, which takes less than one month, millions of crabs would be saved each year. |                                    |
| <b>Summary Statement</b><br>I discovered that if crab fishermen switch from using cotton twine to hemp twine as their automated release system on crab pots, millions of crabs will be saved each year.  |                                    |
| <b>Help Received</b><br>My father helped me to build the frame used for my project. I got help in understanding how the automated release system works from a local commercial crab fisherman.   |                                    |