

Allow me the pleasure of introducing you to a small fish. I hope that, in telling this story, I will shed some light on an important facet of my life. While it's true that I've made small differences in my school—I am the Vice-President of Key Club International and CSF and one of the founders of YCC, a club that helps impoverished Chinese children gain an education—in many ways, none of these activities have been as meaningful or as rewarding as my efforts to save a tiny fish. It is my quest to help this fish that truly defines who I am.

It all began with the first fish I ever caught. I remember sitting on the dock, anxiously staring at my motionless bobber, willing it to move. After a few minutes, I was amazed to see that the bobber began to...bob! Mesmerized by the darting bobber and shocked by the insistent tug, I fumbled with the reel to miraculously land a 6-inch bluegill. From that day on, I was hooked onto fishing.

As my fondness for fishing grew, so did my curiosity. Fishing on a lake no longer satisfied me. That's when I eagerly decided to venture onto the biggest pond on earth, the ocean. The transition felt like I was entering a foreign world, one full of salt-encrusted hooks and slimy seaweed. My first ocean trip will forever be engrained in my mind—and my stomach. I was ten, and I had never been on an ocean-faring craft before. So when I began to feel queasy, I didn't know what to do. Minutes felt like hours as my stomach flipped inside-out; I felt so sick that I could barely stand. To make matters worse, I didn't even catch a fish. Still, I wanted to go again next week—this time with some Dramamine. There was something, however, that did make me hesitate—it wasn't my stomach. It was what I had seen happen to the small rockfish caught accidentally, the "incidental catches" in fisherman lingo.

Rockfish live on the bottom of the ocean, where the pressure of the water is much

greater than at the surface. A technique of fishing known as bottom fishing to target this species of fish is an indiscriminate technique that is incredibly wasteful. The fisherman has no control which fish bites the hook, and often, the baby rockfish are the ones who are fooled into taking the bait. When reeled up, the rockfish's swim bladder cannot adjust to the rapid change in pressure, which causes it to expand in a process known as barotrauma. The rockfish essentially becomes a balloon that cannot descend. Sadly, deckhands and fishermen alike throw these small rockfish back into the ocean due to the lack of meat. Every day of the year, the local boats destroy dozens, even hundreds, of these "incidental catches."

When I was ten, this needless destruction really bothered me, but I was taught—by the skippers and other fisherman—that it was just part of fishing. I knew I loved fishing, so I tried to ignore the voice in my head that told me this practice was wrong. I wrote about fishing—publishing an article entitled "My First Dorado" in a local fishing newspaper—and went fishing every chance I had. I even earned my PADI scuba certification to allow me to see fish in a more intimate way. Perhaps it was these experiences—seeing fish in their natural environment—that pushed me to take protective action regarding my local rockfish. I loved my hobby of fishing, but I could not stand by and watch something occur that I knew in my heart was wrong. I had not only an obligation to do what I felt was right but an obligation to protect the fish and the precious ocean that they call home.

I was fifteen when I began my project. I started by scouring the internet searching for any information I could find—the hours of research flew by like seconds. I devoured information off the website for the California Department of Fish and Game in order to better understand this horrible and immoral practice. Through this research, I learned that the

unnecessary deaths and suffering of these rockfish were completely avoidable. To release a rockfish, it only has to be brought back down to the bottom of the ocean where it can decompress from the build-up of internal pressure. With this piece of knowledge, I racked my brain trying to think of an efficient method that would allow fishermen to release rockfish without cutting into their fishing time. I knew that this was the only pragmatic way to develop a system of saving these rockfish that would be palatable for a majority of the fishing community. Eventually, an idea took shape. Using my experience as a fisherman—and some equipment I purchased at Home Depot—I developed a device that would attach to the sinker on a standard bottom-fishing rig. I called it the “Reviver.”

It’s simply a metal wire bent in the shape of waves to keep the rockfish from falling off. To use it, a fisherman inserts the device through the fish’s upper lip and drops the rig to the bottom of the ocean. With the rockfish at a depth where it can decompress, the fisherman only has to swing the rod upwards to lift the device out of the fish’s mouth. Left with a baited hook, the fisherman can start fishing immediately after the release. It seemed like the perfect method to save a rockfish, but would my device really work?

With my designs set, I made several devices to test on the ocean. I called the owners of the local landings, asking for permission to test my device on their boats. Surprisingly, I received enthusiastic responses from them; some even allowed me to board for free. Soon, the moment of truth came. It was time to test the Reviver.

Taking a deep breath, I watched nervously as the silhouette of the rockfish slowly faded away into the murky depths. Plunk! I felt the weight hit the bottom, and with a sharp jerk of the rod, I—hopefully—released the rockfish. Slowly reeling up, I was afraid to look at the gray mass

gradually coming into clear view. Did it work...YES, it worked! As a fisherman, I never knew I could be so happy staring at an empty sinker and a bare hook. At that moment, the feeling of achievement made all the time I spent truly worthwhile. I had found a practical and successful technique to not only save the hobby that I loved but also the fish and marine ecosystem that I treasure.

With a revitalized sense of purpose, I walked around the boat informing each fisherman about my device. I showed them how to use it, and to my delight, they immediately began to put it to good use. It was truly gratifying to see such a wonderful response to a cause that I felt so deeply for. This overwhelming support encouraged me to expand my project. I went to local sporting good stores asking if they would let me distribute the Reviver. Once again, I received incredible amounts of support. The managers let me pass out flyers and Revivers, even asking questions trying to understand my project. To this day, I still continue my project with the same intensity and passion as day one. Through this experience, I witnessed the difference that one person could make fueled only by a strong desire and a piece of metal wire. I never could have imagined that all of this would've started from my desire to save one small fish.

Citations

California Department of Fish and Game Home Website

<http://www.dfg.ca.gov/>