

**Dolores E. Fisher Award
Alexandra Didoha Cruz**

To say that I am passionate about wanting to make a difference in the world's oceans would be an understatement. At the start of my undergraduate career I began to take an interest in marine biology. I attended undergraduate school at Eckerd College where I received a Bachelor of Science in 1999. At Eckerd my interest in marine biology grew with the courses in which I was enrolled in as well as those that took me out of the classroom. At Eckerd I was able to expand my understanding of marine biology beyond the classroom and into other countries. I traveled and dove in the islands of Micronesia and began to understand the magnificence of the world's oceans. Subsequent to Micronesia I traveled again with school programs, but this time I went to the rainforests of the Amazon and islands of the Galapagos. My travels to South America awakened me to the natural beauty of the world and to the interconnection of culture and nature. After my undergraduate school was completed, I had a burning desire to learn more about other parts of the world and to make a small difference in other peoples lives. I joined the Peace Corps to fulfill this desire but also to realize one of my life long dreams to become a Peace Corps Volunteer.

I was invited to serve as a Peace Corps Volunteer in the Philippines. I leapt at the opportunity because my work would be in the center of one of the most biodiverse places in the world which would enable me to put into practice some of the academic studies from my Marine Biology education. As a volunteer in Southeast Asia I worked at the grass roots level in fishing villages where ornamental fish are extracted on a daily basis for the aquarium trade. I worked with fisherfolk and local governments in developing sustainable management practices as well as educating the fisherfolk to the necessity of conserving their natural resources. While in the Peace Corps I wrote and received a grant from United States Aid in International Development on teaching fisherfolk to become local marine biologists by enabling them to perform transect surveys on their coral reefs and ornamental fish populations. After two years in the Philippines I realized that management and education alone would not sustain the declining ornamental fish populations. What was needed was a solution that did not depend solely on wild extraction. One clear solution was aquaculture. Aquaculture seemed like the best solution to correct this problem, but I first needed more education and training in basic aquaculture. I then enrolled at the University of Miami and pursued my Master's Degree in Marine Affairs and Aquaculture. My main purpose at Miami was to gain the necessary skills to bring aquaculture to fisherfolk in the Philippines. I completed my degree in the summer of 2004 planning to immediately return to the Philippines. However, when offered an opportunity to continue my education with a PhD in Marine Biology, I accepted the offer at Florida Institute of Technology in the fall of 2004, because the opportunity fit perfectly into my envisioned life's mission. My dissertation would involve the aquaculture of ornamental fish to serve as an alternative livelihood for the fisherfolk of Southeast Asia. I plan to study both the ecological and socio-economic impacts of ornamental aquaculture in Southeast Asia.

In order for me to come close to achieving my life dream I must be able to develop and successfully culture several ornamental fish species that will also have an appropriate market for the fisherfolk. If awarded the Dolores E. Fisher Award I would allocate these funds for the development of protocols for the spawning and rearing of ornamental fish protocols in the Fish Ecophysiology laboratory at Florida Institute of Technology. The techniques of rearing ornamental fish are species specific and require patience and

perseverance, but, through proper research and development, culturing can be successful. Once several species have been cultured with the aid of the Dolores E. Fisher award the protocols will be introduced to students and fisherfolk in the Philippines. Once the educational aspects have been successfully mastered, a more feasible alternative livelihood would be available to fisherfolk. Slowly the oceans and reefs of Southeast Asia will have a chance to recover from wild extraction of ornamental fish. The income of the fisherfolk would simultaneously increase.

Given my circumstances, the Dolores E. Fisher Award would not only be used in one year but would be part of the life goal which hopefully will not end when the project ends. These processes of rearing ornamental fish may then be transmitted from parent to child. Thus the proper techniques of aquaculture that were offered to them would be in my estimation a significant outreach program made possible by the Florida Institute of Technology and the Dolores E. Fisher Award.