

The Sea of Cortez Changed My Life!

Through marine science study and research, Aquatic Adventures has helped me to become a conservationist and leader.

Story by **MARLEM RIVERA** • Photos courtesy of **AQUATIC ADVENTURES**



For the past five years, I have been part of Aquatic Adventures, a non-profit organization that educates urban youth about science, the ocean and nature through tuition-free programs. While in middle school, I participated in Aquatic Adventures programs where I learned about marine life and interacted with high school mentors who helped me to have a positive outlook on my life today and my future. Together we explored tide pools, observed animal behavior, and snorkeled through the kelp forest. Growing up in the urbanized community of City Heights in central San Diego, I never knew these things existed!

When I entered high school in 2006, I was really excited to participate in an Aquatic Adventures program called BAHÍA. I began the program in the spring of my freshmen year, when we participated in swimming lessons, studied marine science and learned research techniques. I was paired with a high school junior named Betty, who was my mentor in the program. Betty helped me to become a stronger leader and to be more outgoing. As a native Spanish speaker, I would be able to translate for her once we arrived in Baja California.

In June, we left San Diego and all of our electronics and distractions behind and traveled 400 miles south to Bahía de Los Angeles. When we drove over the last set of mountains and approached the coast, I saw the most amazing view of the islands and a sparkling sea, and I knew that I was about to have the experience of a lifetime.

While in Bahía de Los Angeles, we lived in the beautiful Vermilion Sea Field Station. World renowned scientists had also lived there, and I was proud to follow in the footsteps of these scientists. As part of the BAHÍA program, the students work alongside scientists to conduct conservation-based research. Betty and I chose to be part of the wetlands research group. Each day we traveled by car or by panga to reach one of several of the pristine wetlands in the area. We studied the factors influencing their biodiversity, like wetland size. I was surprised that the wetlands play such an important role in our world. The wetlands are so full of life. I observed thousands of fiddler crabs living along the tidal creek and found giant holes a meter deep dug by much larger crabs. Juvenile fish that grow up in the wetland swam all around us as we collected data.

To learn more about these rarely studied habitats, we used several research methods. We made pitfall traps from coffee cans and plastic bottle tops, which we buried in the mud and left for 24 hours. When we returned we would count the small invertebrates that fell through the hole of the bottle top and into the can. We also set small metal traps to catch fish living within the wetland. Using all these data, we looked for relationships between the biodiversity and characteristics of the wetlands. Being a scientist is really cool because of this kind of field work.

We shared our data with Pronatura, a non-governmental organization in Mexico that promotes conservation of habitat and fosters a connection between humans and nature, and to the Comisión Nacional de Áreas Naturales Protegidas, a Mexican government agency that manages protected areas like Bahía de Los Angeles. These data may be especially important to these groups now, as the area was recently declared a biosphere reserve. Our data may help to ensure that the unique species found in the wetlands are preserved. This is especially important as the area faces future change from increased human development and global climate change.

As a group of young marine scientists, we were guided by our research partners Dr. Theresa Talley of U.C. Davis, and Dr. Drew Talley of the San Francisco Bay National Estuarine Research Reserve. Working with them made me realize that I was contributing real science by gathering data to understand an ecosystem that no one in the world fully understands.

Since I am the oldest in my family, I will be the first to graduate high school and attend college. I want to create a path for my siblings and show them another side to life. Back in San Diego, my commitment to wetland conservation remains strong. I have developed such a deep respect for wetlands, I work as an intern on a project to restore a local wetland and I want to be a leader in conserving what we have left.

I am also committed to helping younger students develop a greater respect for the environment as a mentor for middle school students in the same Aquatic Adventures programs that I was involved in years ago. I feel grateful for the opportunities to participate in these programs because not many Hispanic females my age have the chance to explore science and education the way I have been able to.

I plan to return to Bahía de Los Angeles next summer to learn even more about the world and my place in it. I look forward to making new contributions to science, and I cannot wait to feel the familiar thrill as our panga races alongside a pod of dolphins playing in the Sea of Cortez.

After spending an incredible five weeks living, studying and conducting research on the Sea of Cortez from the town of Bahía de Los Angeles, I realized that I want to spend my life working to protect the environment and the natural areas that still exist. ■



Aquatic ADVENTURES
Living Labs For Youth

SHARA FISLER, Executive Director

sharafisler@aquaticadventures.org
2211 Pacific Beach Drive, Suite A
San Diego, CA 92109
Tel: (858) 488-3849
www.aquaticadventures.org