BROADENING THE STUDENT EXPERIENCE

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PHOTOS BY SCOTT GABARA

MLML students benefit from international travels, specialized classes, and opportunities to conduct research in remote environments.

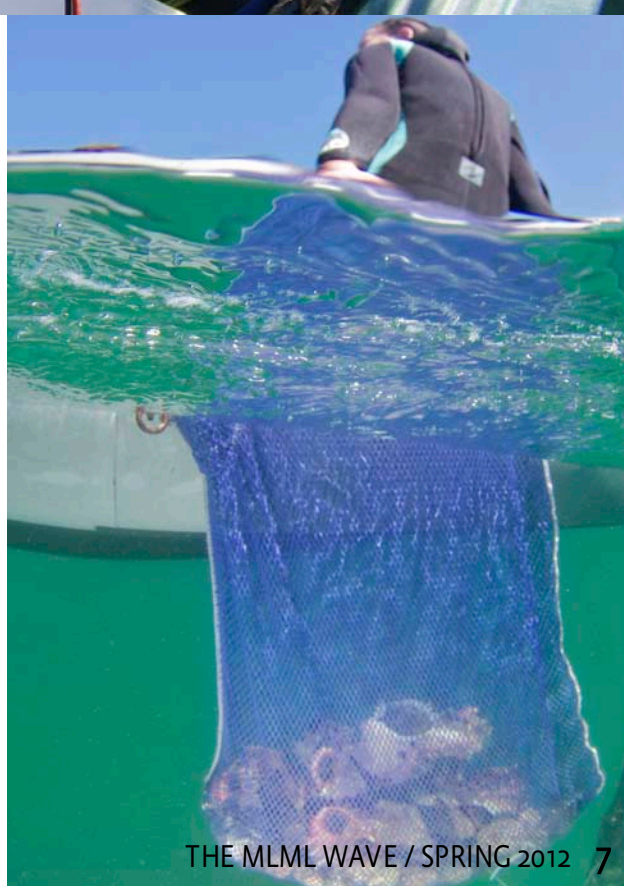
The graduate experience can be influenced and enhanced by a myriad of opportunities. At Moss Landing Marine Labs these opportunities are plentiful, waiting to be seized by students looking for ways to expand their horizons. In spring 2011 a field class titled "Marine Environmental Studies of the Gulf of California" was held in Playa Santispac, Bahia Concepcion, an ecologically rich site that is central to offshore islands, mangroves, and other unique marine and coastal systems. MLML students spent two weeks in Baja California conducting extensive fieldwork to complete individual research projects of their choosing. Experience the course through their eyes as you turn the pages filled with their pictures.

Students, Faculty Jim Harvey, Diana Steller, Scott Hamilton, and Ivano Aiello, and Emeritus Faculty Mike Foster caravanned down to Bahia Concepcion with all the gear needed to conduct the student research projects. The trip there took three days of driving, and on arrival, fieldwork started immediately.

Prior to the field excursion the faculty lectured on the history and environment of the Sea of Cortez, providing students with background information needed to plan their research projects. Projects ranged from the characterization of algae beds, to determining Osprey diets, to describing chemosensory behaviors in snails. Here, students enjoy their first contact with the waters of Playa Santispac in a photo taken immediately upon arrival.

Jim Harvey borrowed this panga from his friend Bruce Henderson, who lives in Baja, for the class' diving operations.

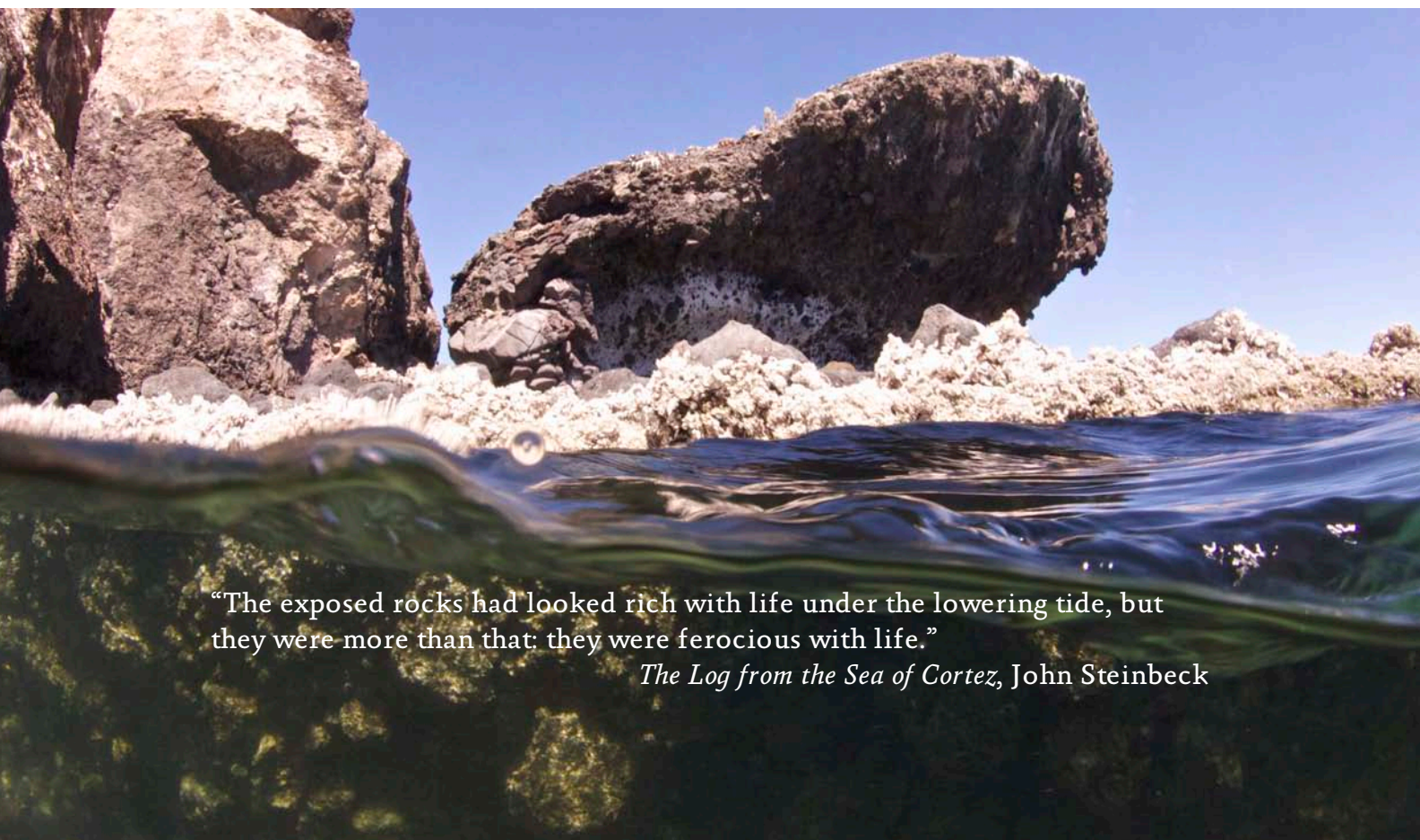
Research projects could involve the land or sea, allowing for terrestrial exploration, or underwater discoveries via SCUBA diving. Many students chose the latter, eager for a chance to dive in waters warmer than those found in central California. Students were encouraged to help their peers with projects as well, to gain insights into new specializations and explore new methodologies.



Student Cheryl Barnes conducted a study on the movement of *Murex* sea snails. She collected this bag of snails for tagging.

MLML Diving Safety Officer and Research Faculty Diana Steller oversaw diving operations and assisted students with sampling and collections. Here she dove with students for a lesson in species identification.

A Pacific Seahorse (*Hippocampus ingens)* was spotted by students while working in rhodolith beds. Rhodoliths are calcareous, free-living red algae, and provided the stage for many fruitful research projects.



"The exposed rocks had looked rich with life under the lowering tide, but they were more than that: they were ferocious with life."

The Log from the Sea of Cortez, John Steinbeck

Students seized the opportunity to explore the habitat created by mangrove forests fringing the perimeter of Playa Santispac. Juvenile fishes were abundant, especially during night when the beam of a flashlight would cause them to jump from the water.

The course lasted a total of two weeks, with eight full days in Playa Santispac packed with fieldwork and data collection. The students returned to MLML and immediately began analyzing their data and writing reports on their findings. The class invited the entire MLML community to presentations on their research projects, and shared their new information on the environment and organisms of the Sea of Cortez. Their enthusiasm for the ecology of Bahia Concepcion was contagious, and the newest cohort of graduate students eagerly awaits the class, scheduled to be offered again in 2014. □