

After earning a B.S. in biology at the University of Oregon, Laura Jim '91 joined the Peace Corps and served in both the Democratic Republic of Congo and the Federated State of Micronesia, where she established three open-ocean sponge farms with village farmers. Since 2000, she has taught middle school science at HPA, where she is also a boarding faculty member, scuba instructor, and associate director of the Sea Turtle Research Program.

How did you establish such a strong foundation for all your scientific interests?

The University of Oregon biology program was mostly geared towards pre-med, but I loved studying photosynthesis, cellular physiology, etc. I decided to spend a semester at the Oregon Institute of Marine Biology (OIMB) in Charleston, Oregon. I studied under excellent professors there, including Dr. Richard Emlet, Dr. Nancy Terwilliger, and Dr. Alan Shanks. Talk about influential and inspirational teachers!

The Institute had a cool structure—each class ran for a full day. We had ample time to do field studies and focus on the topic. During my last semester of college, I returned to OIMB as a teaching assistant under Emlet and continued with coursework. I also completed an independent project under Dr. Alan Shanks investigating the feeding methods of intertidal limpets based on their social status. Super fun!

Wait, limpets have a social status?? Say more!

Limpets (opi'hi) can be extremely territorial and will ram other limpets trying to feed in their area, especially when algae is scarce along the shoreline. They will cause fellow limpets to fall or retreat, and we believe this then causes limpets to have social status ... if they are able to defend their territory. My

research was intended to see if there was a correlation between different feeding methods and whether or not the limpet was the territory's defender or outside aggressor!

Two stints with the Peace Corps must also have shaped you. What was that like?

During my first assignment, I was stationed in a town called Ewo in the Republic of Congo. I learned the technical aspects of fish farming, two languages (French and a little Lingala), and how to ride a motorbike! Beyond those technical skills, I learned so much about the world and myself. For the first six months I walked to all my farmers, with the furthest living 40 km away. This was in the 1990s in rural central Africa with no electricity, phones, or running water. A Peace Corps representative would bring letters every three months. The isolation was a gift and enabled me to truly engage in this new life.

About 18 months into service, a civil war ensued and, after six very trying days in the middle of chaos, I was able to return home for a year—at which point I worked at HPA and recuperated. I have always been so very appreciative of HPA and its various alumni who helped me during a tough time. My survival was not guaranteed, by any means.

The following year, I rejoined the Peace Corps, this time in Micronesia. I served various roles for the Marine and Environmental Research Institute of Pohnpei and Pohnpei Agriculture and Trade School. I developed the sponge farms; conducted research on sustainable coral farming for the aquarium trade; and managed all dive operations, working with our boat technicians and nationals (I spoke fluent Pohnpeian). I was even able to host a group of HPA students and teachers at our facility! All of these experiences helped to fuel my innate passion for biological sciences, the marine realm, and hands-on experiential learning.

And now you immerse HPA students in experiential learning! What do you love about that?

In recent years, HPA has made many educational advances—our focus on project-based learning, student-directed learning, and purposeful integration of sustainability into our ethos, to name just three. I often wish my own children could return to school and experience today's HPA. All members of the community, especially our students, have a growth mindset, a passion for learning, and a vision of how positively we can impact the world! •



Drone on duty

Last fall, Ethan Goore '21 and
Dr. Bill Wiecking demonstrated the
school's drone for Hawai'i County Fire
Department personnel, showing how
the device could support search and rescue
efforts. Among the drone's capabilities
are thermal recognition, voice commands,
and lighting, with a range of five miles in
wind of up to 15 mph.



Hello Helix!

Every year, HPA students benefit from altruistic donors, whether through the HPA Fund, the endowment, or other restricted gifts. In the biotechnology capstone course, students are deepening their research skills with a NanoDrop One, made possible through a generous foundation grant. This UV spectrophotometer allows students to study DNA and RNA samples. Gabriella Pike '20 and Hali'a Buchal '20 recently compared the DNA of Sarcothelia edmondsonii coral species, and Pike also worked with other classmates to quantify sweet potato DNA. According to Pike, "This instrument is quickly becoming something we cannot live without."

