

Nānā I Ke Kumu
(Look to the Source)
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May 2015

Nānā I Ke Kumu introduced my students into a world of microbial science of the Anahola estuary and ocean. During Semester 1 of this year we explored our own Anahola watershed, doing water testing and organism studies. The students researched their area and put together information about the Anahola watershed. The students collected organisms from the river and ocean for study in our touch tank and they did water testing of the river, estuary and ocean to compare and contrast. All of this information was made into a newsletter for the community to learn from.

During Semester 2, we returned to the estuary each week to continue water testing and discover differences in the organisms that we found. We were able to collect zooplankton and phytoplankton from the Anahola area using seine nets. We also worked with Division of Aquatic Resources during a one day exploration to see if our test results were the same or different and to understand more about the native and introduced species found in our estuary.

Our field study was supported by the information that we discovered in the classroom. The microorganisms from the ocean and estuary were studied and identified and drawings were included in our journals. We used microscopes to help us identify phytoplankton (plant-like plankton) from zooplankton (animal-like plankton) but we had a hard time with the identification guides that we had and we had lots of questions.

Towards the end of the school year we had an incredible opportunity to stay on Moku 'O Lo'e (Coconut Island) for 3 days to study marine biology. Through a Grant for Education in Microbial Science (GEMS) offered by The Center for Microbial Oceanography (C-MORE), we had the opportunity to work alongside researchers at HIMB (Hawaii Institute of Marine Biology) in Kaneohe, O'ahu. This is where we discovered the answers to so many questions we had with the plankton that we collected earlier in Anahola. During our 3-day stay, we had the opportunity to study and learn not only microorganisms found during the day, but also night time plankton, ocean acidification, water testing, reef organisms, fish studies, shark studies, and invasive seaweed.

The students loved our trip and it opened their eyes to the possibilities that college could bring them. Some of the students are even applying to HIMB for volunteer opportunities and hopefully in the future they'll be able to study there. Thank you to our sponsor C-MORE for giving us this incredible 3-day adventure for our students.



