



NOVEMBER 2020



KAUAI COMMUNITY SCIENCE CENTER

NEWSLETTER

Inside: KCSC's Internship Program grows

SEASONS GREETINGS!

Aloha Kauai Community Science Center Supporters!

We have had a very busy and exciting few months at KCSC. We have added more amazing people to our team (p.3), started the KCSC Internship Program (p.4), developed our KCSC Core Values (p.2), started the KCSC Seabird Searching Project (p.8) and hosted community events with the KCSC HOTspot (p.6) to name a few of the things keeping us busy.

We have some exciting projects in the works like developing a 3D Printing Club with Kauai Makerspace. Receiving training from our colleagues at BYN Mellon FAB Lab at Carnegie Science Center in Pittsburgh, PA who have developed some amazing lesson plans, just for KCSC, like building a 3D printed Hōkūleʻa replica. We're also distributing fun science-themed books through our collaboration with Kauai Planning & Action Alliance.

We are so full of gratitude during this season of Thanksgiving and holiday cheer for all of the support we have received from the County of Kauai, Kamehameha Schools Community Investment, Alexander & Baldwin, Inc, our collaborators, our amazing interns and staff and the community at large. "Community" is part of our name because it is foundational to who we are, who we serve and our biggest resource and support system. Mahalo for your support.

We wish you and your families all a SAFE, HAPPY & HEALTHY Holiday Season and New Year!

KCSC CORE VALUES

GUIDING EVERYTHING WE DO

INCREASE ACCESS TO SCIENCE

KCSC provides opportunities for students and the whole community to participate in informal and fun science-based activities.

GROW SCIENCE LITERACY

Growing science literacy on Kauai will better prepare our community to manage and mitigate challenges and develop a more resilient and self sufficient Kauai.

PROMOTE CLIMATE CHANGE AWARENESS

KCSC Climate Connect encourages students to consider how their interests, activities, and choices can make a difference in their community, with a special focus on climate change.

SAFE & RESPECTFUL ENVIRONMENT

KCSC values a safe and respectful environment. During these uncertain times, all programming prioritizes the health and well-being of our community.

WELCOME TO KCSC!



Quiana Duarte
Marketing Director

We are pleased to announce our Marketing Director, Quiana Duarte. Quiana promotes and supports our HOTspot events and various KCSC programs.

Quiana received her BBA in Business Administration with a concentration in Marketing and Management from the University of Hawai'i at Hilo. Growing up on the westside of Kaua'i, she is thrilled to be back home and ready to give back to her community that has done so much for her.

Affected as so many by Covid 19, Judy welcomed the opportunity offered to try something new. Working with KCSC she is putting her experience in planning and organizing events into the HOTspot events as well as helping in other areas like building a membership program.

A long time resident of Kauai, Judy studied Business Administration and Accounting at the University of Kansas and enjoys baking, hiking, reading and her children and grandchildren. She is looking forward to having a part in helping connect science and the Kauai community.



Judy St Clair
Operations Director

Joining KCSC is Michelle Ebeling, who lends Art Direction to the team. Michelle is a professional artist with a BA in Studio Art and a BFA with a double major in Photography and Printmaking from Western Washington University. Michelle is from a family of creative and artistic people from Washington state.

Michelle has a true passion for not only the arts, but the outdoors, environmental conservation, influencing future generations, and giving back to the community. Michelle is a ten-year resident of Kaua'i and is looking forward to giving back to this island and her people.



Michelle Ebeling
Art Director

STUDENT INTERNS LEAD KCSC

The Kauai Community Science Center is offering their first internship program for high school and college students, ages 15-25. Participants receive resources and support to pursue their interests in STEAM, from learning how to build objects using Makerspace equipment to developing a cultural response to problems such as climate change. Through our platform, interns generate STEAM content that is impactful to their community and learn more about their academic interests along the way. This program is supported in part by the Kamehameha Schools Community Investment Grant Program.



From left to right: Corey Agena, Maximus Ornellas, James Pratt, Marisa Chelius, Briana Apo, Braelyn Cayaban, Sarah Styan, Quiana Duarte
Not pictured: Kathleen Alvarez - Junior at Waimea High School



James Pratt, Freshman at Santa Clara University

“The reason I joined the KCSC Internship was to gain experience in the world of computer science and other technology, while participating in the community and giving back to those in the community who can benefit from KCSC”.

“The reason I joined the KCSC Internship is because it helps with exploring different career skills, the hands-on work like getting to work with a 3D printer, getting to help with activities for students, and gaining knowledge about the impacts and improvements that science and technology can better our community. What I also like about this internship is that it also focuses on other areas of improving our community; by searching for injured or wounded birds such as the shearwaters so that there are more for future generations”.



Briana Apo, Junior at Waimea High School



Maximus Ornellas, Junior at Waimea High School

“From a young age, I have always had an interest in the odd and bizarre things in nature and science. By working with KCSC I hope I can further my experience and learning in the biology field and new things to fascinate my interests”.

“An internship at Kauai Community Science Center allows me to connect with the community and gain science literacy to further my education in the STEM field. I look forward to working with many of the KCSC collaborators who will help me gain knowledge in the STEM world. My goal is to contribute to the community while continuing to practice virtual learning during these unique times of COVID-19”.



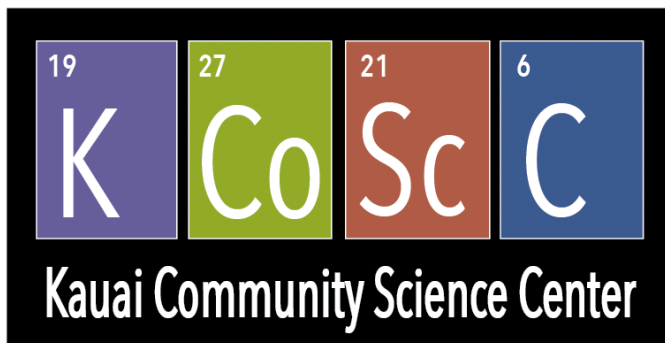
Braelyn Cayaban, Senior at Waimea High School



Corey Agena, Junior at California Polytechnic State University at San Luis Obispo

“I joined the KCSC Internship Program to gain experience in an internship setting. So far it has been a great experience with all of the amazing equipment and people. I am excited to see how KCSC and our HOTspot impacts the westside community”.

KCSC HOTspot HITS THE ROAD



Come for the Free WIFI, stay for STEAM, Science, Technology, Engineering, Arts

A goal of the KCSC HOTspot CARES Act grant through Kupa'a Kaua'i is to support informal science learning via the KCSC HOTspot, a mobile WIFI and STEAM resource. We're establishing Neighborhood Hubs to share community resources, provide internet access, and support student learning and interest in STEAM fields, including exposure to career pathways that build resilient communities.

We have had three events to date, two at Kekaha Elementary School and one at Waimea High School. Thanks to our gracious hosts Principal Marilyn Asahi at Kekaha School and Principal Mahina Anguay and Major Aguilar at Waimea High School. Our events feature free WIFI, 3D printer demonstration, a robotics demonstration where you can drive the Makeblock M-bot and we offer "brown-bag" activities where instructions and everything you need for the activity are "in the bag". You can work on it at the event or take it home for later. So far, we have offered kits to make a rubber-band launcher, 3D bubble wand, parachutes and do some fingerprint art and learn about measuring. The activities are for all ages, especially if some of our younger guests work with their parents or older siblings.

We plan to have an even wider range of activities as we learn and grow. Some of the other equipment we have been able to purchase with the Kupa'a Kaua'i CARES Act grant include a vinyl cutter, laser cutter, drone, sphero and power tools. KCSC HOTspot is all about informal science learning and fun.

Our activities are led primarily by our KCSC Interns who are college and high school students that joined our KCSC Internship program this fall (p.4-5). They have all of the skills and knowledge to run the equipment and lead activities.

HOTspot

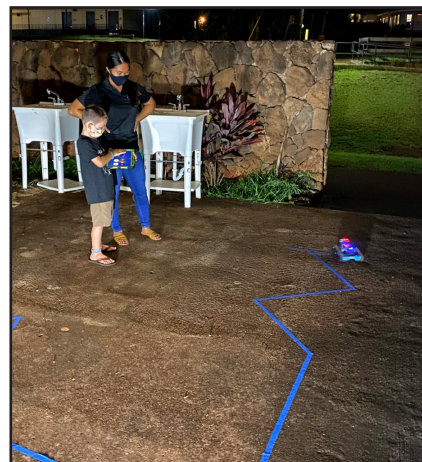
*the STEAM fun.
& culture and Math.*

*The KCSC HOTspot is a mobile
WIFI hotspot equipped with STEAM
learning resources, that provides
free WIFI, fun STEAM activities and
exposure to related career pathways.*

It is great to see all of our guests, students, teachers, parents and other community members learning from our interns.

KCSC core values are **increasing access to science**, **growing science literacy**, **promoting climate change awareness** and **creating a safe and respectful environment for our team and community**. We are happy that the KCSC HOTspot provides a vehicle that supports all of these.

We are currently working on bringing the KCSC HOTspot to more communities between Kekaha and Ele`ele and we can't wait to meet all of you!



*A young student drives the M-bot as
KCSC Intern, Braelyn Cayaban looks on.*



*A family enjoys assembling their brown bag activities while the WHS
Robotics teams showcases their robots in the background.*



*Corey Agena, KCSC Intern, describes the Protocycler, 3D
filament recycler to a student and parent.*

SEARCHING TO MAKE A DIFFERENCE

KCSC Seabird Searching Program is making a difference for Kauai's endangered seabirds and creating an enriching experience for the high school and college students involved.

Kaua'i serves as the Noah's Ark for some of the most endangered seabirds in the world, and we are proud that high school and college students in West Kaua'i are making a difference, working in the Kauai Community Science Center (KCSC) Seabird Searching program.

As of press time, these students have rescued four downed Newell's Shearwater fledglings. These were handed off to Save our Shearwaters for rehabilitation and release. The fledgling season for the four bird species pictured here is from September 15th to December 15th every year.

Alexander & Baldwin, Inc. (A&B), one of several property owners in the Port Allen area, hired KCSC to implement a Downed Seabird Searching and Monitoring Plan at their Port Allen commercial properties. This plan was developed by A&B for seabird fallout monitoring, searching and rescue under the Kauai Seabird Habitat Conservation Plan (KSHCP). A&B is one of several participants in the KSHCP that is overseen by the U.S. Fish and Wildlife Service and Hawaii Department of Land and Natural Resources. Although working on behalf of A&B, KCSC rescues any seabirds they encounter during their searches regardless of where they are found.

KCSC strives to provide impactful project-based learning opportunities for students and this is a great opportunity. This project demonstrates how multiple parties, including businesses, non-profits, and government agencies, can all work together to manage a conservation and ecosystem management issue right here on Kauai.

The students search every day of the week, twice nightly. The first search is 3-4 hours after sunset and then again about one hour before sunrise. The students search in pairs and follow the same pattern during each shift. Students are also required to complete a log that captures all of their observations, even if they do not find a bird.



Newell's Shearwater



Band-Rumped Storm Petrel



Hawaiian Petrel



Wedge-Tailed Shearwater

"We have been impressed by the dedication, desire to learn, and attention to detail demonstrated by all members of the KCSC team throughout this important project. It has been our great pleasure to work with them." - Sean M. O'Keefe, Director, Environmental Affairs, Alexander & Baldwin, Inc.

Through the daily searches, students have observed, first-hand, many feral cats in Port Allen which are one of the significant threats to seabirds.

Prior to engaging in search activities, each of the students received training on seabird search and recovery protocols. In addition, Dr. Andre Raine, the lead researcher of Kauai Endangered Seabird Recovery Project met with the KCSC Seabird Searcher Team and provided an excellent history and review of endangered seabirds on Kauai. It was great to have a scientist, in the field, share his knowledge and experience with the students. Dr. Raine also provided some great tips that helped the Seabird Searchers during their daily searches and handling the rescues they executed.

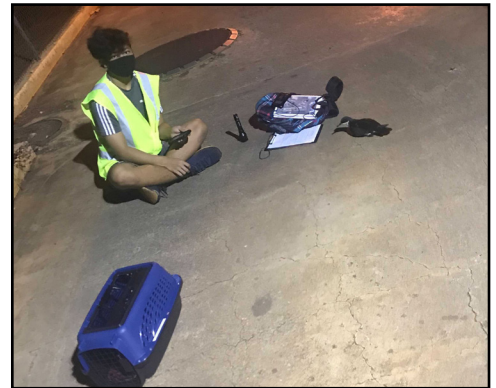
KCSC is very proud of the student's commitment and impact through this important work. Once again, students are leading the way at KCSC.

" The various species of seabirds have lived on these islands for millions of years, and we humans have only arrived recently. In the short amount of time humans have inhabited the islands of Hawai'i, the ecosystem has changed due to our activity. So, it is up to us to pick up and fix what we damage. When I first saw a Newell's Shearwater, I was actually surprised at how small it was. It was hard to believe that these birds were once so abundant"

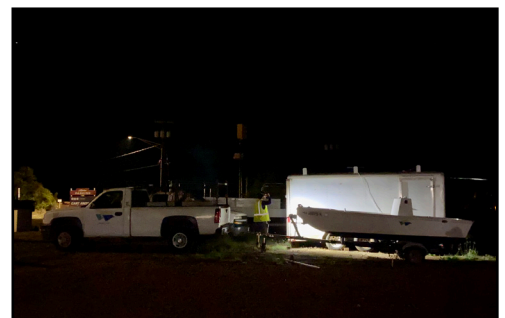
- Maximus Ornellas, KCSC Seabird Searcher



Searchers on recent morning shift.



Max Ornellas with a downed Newell's Shearwater.

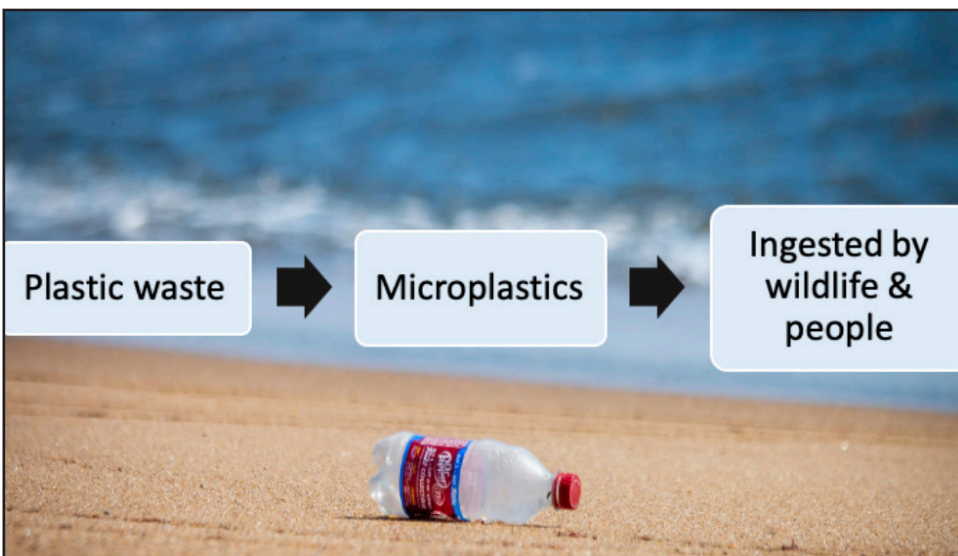


KCSC Seabird Searchers, checking under and around vehicles and other machinery for seabirds in hiding.



A rescued Newell's Shearwater awaits transport to the Save Our Shearwaters, SOS aid station.

CLIMATE CONNECT CORNER



DID YOU KNOW that the plastic in straws, bottles, diapers, and clothing, among other forms of plastic, has been found in over 90% of sea-salt sold worldwide? Additionally, only about 10% of plastics find their way to a recycling plant. That means the majority of the plastic you purchase, whether it holds apples or shampoo, will end up in a landfill or the ocean where it can take at least 400 years to completely break down. In the meantime, you might be sprinkling plastic on your food! Yuck, right?

CLIMATE CONNECT In addition to potential health concerns, plastics pose a threat to our climate. Fossil fuels are used not only to power the manufacturing process, but also as the starter material for most plastics. We know that fossil-fuel use ultimately leads to more atmospheric carbon dioxide, a potent greenhouse gas. **So, the more plastic, the more carbon dioxide in the atmosphere, and the warmer our planet becomes.**

WHAT CAN YOU DO? Think of ways to reduce your consumption of plastic. For example, choose apples packaged in cardboard instead of clamshell packaging. Carry metal forks and water bottles to avoid disposable. Encourage suppliers to choose non-plastic packaging. Upcycle your clothing and avoid man-made material. It's not easy to avoid plastic, but with some effort, we can all find ways to improve the problem of plastics.

COLLABORATOR CORNER



Collaboration is an important 21st century learning skill that we embrace and model at Kauai Community Science Center. Collaboration allows us to learn from experts and benefit from the support of professionals in different successful organizations that have similar goals and activities.

Our first collaboration in 2019 was with The Sciencenter in Ithaca, NY. That collaboration was a real strength of the Students Sharing Science project we had with Waimea Canyon Middle School in the 2019-2020 school year.

We have continued our collaboration with The Sciencenter this year and added new collaborations with BYN Mellon FAB Lab at Carnegie Science Center in Pittsburgh, PA, STE(A)M Truck in Atlanta, Georgia, The Hawaii State Library, Kauai Planning and Action Alliance and others. We are so grateful to have built more collaborations in 2020; it is such an important part of our organization.

CHAMINADE UNIVERSITY- *I Am a Scientist STEM Program*

KCSC is thrilled to collaborate with Chaminade University's "I Am a Scientist" STEM Program. Led by Lori Shimoda, a scientist herself at Chaminade, this program has been successfully providing amazing science outreach programs since 2009 and has served over 30,000 students on O'ahu. They have worked with schools on Kaua'i in the past and we're partnering to increase their collaboration with our teachers and students.



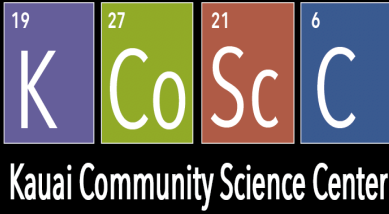
Recently, KCSC was able to help the "I Am a Scientist" Program provide science kits to Kekaha, Ele'ele, Koloa and Wilcox Elementary Schools. With the help of Waimea High School student volunteers, we were able to put together 2,000 science kits that modeled the spread of diseases, which is especially relevant during these times.

Contact us if you would like to learn more about this program, info@kauaiscs.org.



Some of the WHS Volunteers with the science kit components they prepared.

KEEPING UP WITH KCSC



Please sign up on our website, <https://kauaicsc.org>, or email us, info@kauaicsc.org to receive our newsletters and e-mail updates on future KCSC HOTspot events!

MAHALO TO OUR COLLABORATORS



DON'T FORGET TO FOLLOW US ON SOCIAL MEDIA @KAUAICSC

