HUMBOLDT
STATE UNIVERSITY

FALL 2021 GRAD STUDIES NEWSLETTER

Office of Graduate Studies & Academic Programs

Announcements 1

CSU Student Research Competition 2

Graduate Student Spotlight 3 - 5

Honorable Alumni Profile 6 - 8

announcements

CDIP APPLICATION

The goal of the California State University Chancellor's Doctoral Incentive Program (CDIP) is to increase the number of faculty with the qualifications, motivation, and skills needed to teach the diverse students of the CSU.
CDIP prepares promising doctoral students for CSU faculty positions by providing financial support, mentorship by CSU faculty and professional development and grant resources.
Apply for the CDIP by February 1, 2022.
Click here for more information

GRADUATE ASSISTANTS & TEACHING ASSOCIATES

Submission of the FAFSA for the 2022-2023 academic year: Students must file a FAFSA no later than
March 2nd to be eligible. Programs forward names of the graduate TAs and GAs for the next academic year to Academic Programs by April 1. Once eligibility has been determined, Financial Aid will send names of students awarded a GA/TA waiver – Academic Programs will inform students and department.
Information via the Financial Aid Office

The HSU Library is anticipated to open up again in January!

For questions please email us at hsugrad@humboldt.edu.
More deadlines can be found at the Grad Studies Calendar.

IDEAFEST JOURNAL

IdeaFest Journal is an annual, peer-reviewed journal that showcases the work of faculty, staff, and students at Humboldt State University. It is a great opportunity to showcase on your resume and does not require involvement in ideaFest. The journal deadline is always two weeks after the end of Fall and Spring semester.
https://digitalcommons.humboldt.edu/ideafest/

THESIS SUBMISSION

Monday, December 13 at 5PM PST is the final Fall 2021 Thesis Submission Deadline
Make sure that you have applied to Advancement to Candidacy and Graduation and consider submitting at least one week early to give committees and advisors time to complete the approval process.
https://gradprograms.humboldt.edu/thesisprojectsubmission

25LIVE

Keep track of what's going on with 25Live: HSU's room scheduling software used for viewing campus events and spaces, scheduling campus events, and assigning rooms to them (including academic classes).
Every Humboldt State student, staff, and faculty member can access 25Live with their HSU user name and password.
Click here to learn about 25Live
Click here to visit 25Live

CSU STUDENT RESEARCH COMPETITION

HSU Deadline: Mon., Jan. 31, 2022
Award Cycle: Academic Year 2021-2022

The Student Research Competition is held to promote excellence in undergraduate and graduate research, scholarly, and creative activity by recognizing outstanding student accomplishments throughout the twenty-three campuses of the California State University. Each campus may select up to 10 entries to send to the final round, which will be held at San Francisco State University on April 29 and 30, 2022.

Undergraduate or graduate students currently enrolled at HSU as well as alumni/alumnae who received their degrees from HSU in Spring, Summer, or Fall 2021 are eligible. A small team of students making a single presentation counts as a single entry.

To be considered at the HSU level, a student will need to submit a written summary of their presentation. The rules governing the written summary are as follows:

- The summary must include the name(s) of the student(s) and title of the presentation.
- The narrative may not exceed five double-spaced pages.
- Appendices (bibliography, graphs, photographs, or other supplementary materials) may not exceed three pages.
- Research that has human or animal subjects involvement must have appropriate institutional review. The approval letter must be included.

Each written Summary submitted to HSU will be judged on the following:
(1) Clarity of purpose (2) Appropriateness of methodology (3) Interpretation of results (4) Value of the research or creative activity (5) Organization of the material presented

Proposals must be submitted through InfoReady. See the HSU Competition Guidelines and Scoring Rubric with more information about the Competition.

For even more information please contact Susan Brater, Administrative Analyst, HSU Sponsored Programs Foundation, at (707) 845-8933. View Competition Info

Presentations from all disciplines are invited. The ten categories are:

- Behavioral and Social Sciences
- Biological and Agricultural Sciences
- Business, Economics, and Public Administration
- Creative Arts and Design (creative projects: see "Competition Guidelines")
- Education
- Engineering and Computer Science
- Health, Nutrition, and Clinical Sciences
- Humanities and Letters
- Physical and Mathematical Sciences
- Interdisciplinary

Student Spotlight

Sophia Lemmo

Natural Resources:
Forestry, Watershed & Wildland Sciences

1. What do you do for work/research?

As a forestry graduate student, I am researching forest demographic patterns in Northern California with Dr. Lucy Kerhoulas and Dr. Rosemary Sherriff as my co-advisors. My thesis project examines tree mortality and natural regeneration patterns across competitive and geographic gradients, especially in relation to the 2012-2016 drought. While the impacts of this record-setting drought have been closely examined in the central and southern Sierra Nevada, there is comparatively less empirical research in Northern California, a heavily timbered and diverse region. My project fills this gap by researching the drivers of regional forest perpetuation, with plots spanning three geological provinces and elevational, longitudinal, and latitudinal climatic gradients. To collect data, undergraduate research assistants and I spent the past two summers visiting 54, .25 ha plots that ranged from the Oregon border to Fort Bragg going North to South, and from the coast to Lassen National Park moving West to East, all centered on the Klamath Mountains. I am now in my third semester and am wrapping up data processing and starting statistical analyses. It is my hope that these data will improve silvicultural prescriptions to enhance drought resistance and resilience and support sustainable timber yields in the face of climate change. Additionally, these data will help build more accurate and finer-scale forest models for this region.

2. What led you here?

Prior to returning to graduate school, I worked as a consulting Registered Professional Forester in Northern California. Managing a forest is an intricate process. Helping landowners and the public understand the complexities and efforts involved with managing sustainable forests to support rural economies and cultures is important. Through my work designing and implementing silvicultural prescriptions targeted at enhancing forest resilience, while generating economic revenue, I became increasingly interested in the mechanisms behind sustainable forest perpetuation. Thus, I decided to return to school to research some of these questions, with the desire to improve my management decisions and ability to communicate these forestry concepts to clients and the public.

3. Could you share the impact of your work?

One of the objectives of my thesis is to widely disseminate research findings. One research goal is to provide results that will inform management decisions to help maintain biological diversity and health in Northern California forests. My study also aims to enhance community understanding and appreciation for the work involved with effective forest stewardship. Already, as a graduate student, I have engaged in several speaking events including giving professional talks at the California Forest Pest Council's Annual Meeting (2020), the Ecological Society of America Conference (2021), and the California Legislature (2021). Additionally, I have been a guest lecturer in an HSU geography course and co-taught courses for the Siskiyou Field Institute and for the Osher Lifelong Learning Institute. Through these talks, I strive to inspire others to enter the professional field of forestry and natural resources. To this end, I organized a Women in Natural Resources Career Panel on behalf of California Women in Timber for college students, and I am teaching a course on careers in forestry and natural resources at College of the Redwoods. Lastly, I have also hired and mentored four undergraduate students in field and lab work.

Student Spotlight

Brittany Bussell

School Psychology

1. What do you do for work/research?

I am a proud mother of one (with another currently on the way), a member of the Hoopa Valley Tribe, and a third-year graduate student in the School Psychology program at HSU. I am currently completing my field-based internship at the Klamath-Trinity Joint Unified School District (KTJUSD). The KTJUSD is comprised of six schools: 1 in Willow Creek CA, 3 on the Hoopa Reservation, and 2 of which are on the Yurok and Karuk Reservations. I received my undergraduate degree in Psychology and a minor in Native American Studies with an emphasis in Culture and Community in 2016. I served as the President of the School Psychology Club (2020-2021), a Representative for the Associated Students Diversity, Equity, and Inclusion Committee (2020-2021), and a Member of the Indian Tribal and Educational Personnel Program (2014-Present). I actively promote Native cultural revitalization to ensure the transmission of our culture for future generations. I attend and assist in weekly Hupa language classes with my father. Throughout my life, I have walked a clear line between contemporary versus traditional worlds. My contemporary life consists of receiving a higher education/credentials and having a lucrative career. My traditional side is staying true to my Native roots, maintaining my cultural morals and values, and preserving traditional ways. I balance my culture and academics by prioritizing both in different aspects of my life.

2. What led you here?

My sole purpose of aspiring to receive a degree in School Psychology is to bring back my knowledge to my community and my children. The Hupa people reap the effects of intergenerational trauma and internalized oppression. The lives that children endure on the reservation consist of trauma exposure to substance abuse, domestic violence, rape, suicide, poverty, poor health etc. Studies have shown that if we raise the literacy level of a community, other levels of positive things will also raise. For example, if we increase our brain power, we can reduce poverty. Therefore, I wanted to start with improving academics with the overarching goal of enhancing the wellbeing of Native adults. In addition, I believe it is necessary to shed light on the beauty and richness in Native people. I noticed during my undergraduate experience that there are few psychological studies that utilized Native samples. Therefore, the Native population were not being represented and continued to be misunderstood. I acted as an accessible source that my program peers could openly utilize to increase their own cultural competence with the Native populations, which directly impacts the students that they may serve in the future.

3. Could you share the impact of your work?

I will use my education acquired through the School Psychology graduate program by becoming certified and knowledgeable in a field that can greatly affect the overall vibe and cohesiveness of my Tribal community. I will change the narrative of what the future could look like for many Native children by setting a more positive example. I want to show Native children that we can use contemporary education as a vehicle to strengthen our traditional roots. School Psychologists are practitioners who use various domains of human psychology in order to meet a specific child's learning needs in a collaborative manner that helps them become academically, socially, emotionally, and behaviorally successful. With that said, most of these practitioners that practice on reservations with Native students are non-Native; they do not understand the cultural basis that is foundational in the identity of Native people. I will be a Native American School Psychologist that can address all angles of a Native student and can openly and competently utilize their culture as a strength-based approach for them to attach meaning to any academic curriculum.

Student Spotlight

Amada Lang

Social Science:
Environment & Community

Grad student Amada Lang is a Karuk tribal member who envisions giving back to her community through her graduate program. She seeks to address the scarcity or non-existence of mental health, wellness, and family services in Native communities.

Amada thought of ways she could help out Native youth during the pandemic and arrived at creating the Bike Wednesday Bike Club. This club asks the Humboldt community for bike donations to gift to Native youth and allows people to safely come together and interact with the outside environment. In September of 2020, she started the bike club at Two Feathers Native American Family Services (NAFS). Two Feathers NAFS is a social services organization whose mission is to inspire healthy and balanced Native American communities in Humboldt County. Her goal was to facilitate donations of bikes and bike equipment to local indigenous communities and, before long, over 24 Native youth had received a new bike. On top of that, 8 youth received a bike helmet and 8 received u-bike locks.

"With help of Native youth, Karuk Language teacher and cultural leader my great uncle Julian Lang, and a local Native business, we created Karuk Language water bottles that has a QR code with the design on the water bottle that can be scanned to hear Karuk Language being spoken by a Native youth."

As of November 2021, the Bike Wednesday Club continues with great success. Amada remarks “I have given out a total of 64 bikes to Native youth in Humboldt and plan to start new bike clubs in Native communities upriver soon. There have also been 3 sibling groups we have provided bikes to with 3 or more youth in their family to ride.” This project has also been propelled forward by fundraising efforts and donations from friends, family, and local organizations. Amada herself was able to raise $1,370 over 6 months for the bike club by gathering recyclable material from the local community. Funds from this went to purchasing two new rental bikes and a tandem bike to make bike Wednesdays inclusive to those who don’t have bikes.

Not only are resources being redistributed to those who could greatly benefit, but a recurring exercise program is established as well. Amada measures the therapeutic effects of this inclusive outdoor cultural program as part her thesis research under the environment and community program. The bike club directly addresses sustainability and creates mentor-mentee relationships that she documents. She is also committed to and documents the progress of Karuk language youth programs which aid decolonization efforts through cultural revitalization. She aims to make this a long-term project and ensures so through collaboration and sustainability.

HONORABLE ALUMNI

Roxanne Robertson

M.S. in
Fisheries Biology 2021

What do you do for work/research?

I have worked for the past several years as the lead technician for the Trinidad Head Line (THL) Ocean Observing Program. We conduct monthly cruises onboard the R/V Coral Sea to collect zooplankton and hydrographic data. These data provide information on coastal water properties, such as temperature and oxygen, and phyto- and zooplankton—the base of the food chain. A few years into this work, I became curious about the patterns I was observing with changes in the size of an important krill species, Euphausia pacifica, and with my then-supervisor developed an analysis showing that E. pacifica size distributions are related to temperature, and to a lesser extent, prey concentration. Warm-water events, such as El Niño, and especially the marine heatwave in 2014-16 resulted in a strong shift to smaller adult E. pacifica—including several mature individuals smaller than previously reported in the literature—and the disappearance of large individuals. These shifts are of interest because E. pacifica are a crucial component of the nearshore ecosystem; they are important prey for numerous ecologically and economically valuable organisms including salmonids, rockfishes, seabirds, and whales. Changes in individual size and biomass have the potential to impact higher trophic levels. As such, the krill size data we collect have been incorporated into NOAA's California Current Integrated Ecosystem Assessment as an indicator of ocean-ecosystem health.

These patterns motivated my decision to enter graduate school. I am building on this research to develop an individual-based model (IBM) capable of resolving realistic variability in E. pacifica growth and size dynamics. Existing IBMs do not account for the temperature-related patterns we observed and therefore do a poor job predicting the response of krill to environmental variability. The enhanced model I developed will improve our understanding of E. pacifica dynamics and their role in the California Current Ecosystem. My thesis research has also revealed gaps in our understanding of E. pacifica energetics. These gaps provide a framework for future experiments, some of which will be investigated at the HSU Marine Lab using a recently acquired multi-stressor experimental system.

How have you used the opportunities offered to you to advance?

My path to working in the marine science field began as an undergraduate in the HSU Biology department. I believe the hands-on component of the courses I took was crucial to my success in the field. As an undergraduate, I participated in oceanographic research onboard the R/V Coral Sea and gained important experience in the field, processing samples in the lab, and presenting my research at a scientific conference. I also minored in Scientific Diving. The certification and skills I obtained during my scuba training at HSU helped me compete for internships and a great marine technician job shortly after I graduated.

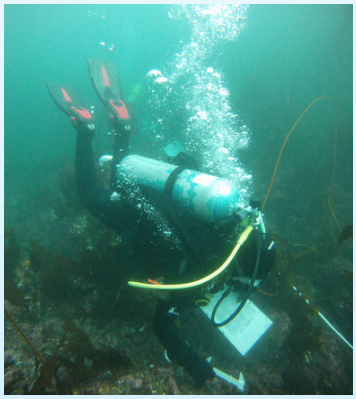
Students in Oceanography, Marine Biology and Fisheries Biology have opportunities to use the R/V Coral Sea.

After working for the THL for several years, I decided to return to school for a graduate degree because I wanted to deepen my understanding of marine processes and ecosystems and develop skills that would improve my ability to facilitate, perform, and communicate research. I was ready for a challenge and knew it would likely lead to a more fulfilling career in science.

My graduate experience in Fisheries Biology has exceeded my expectations. The quantitative skills I gained in statistics courses enabled me to contribute more to THL research, including a recent manuscript. A fisheries management course I took helped me better understand how science is used to guide policy. I found this course particularly interesting given our role in providing information on the base of the food chain to fisheries managers. My graduate experience expanded my knowledge and abilities and has helped me develop a well-rounded and fulfilling career in science.

Advice for grad students?

My advice for future graduate students is pretty simple, enjoy learning! Scientific inquiry is endless, there is always more to ask and more to learn. I tried to find ways to make each part of my graduate experience enjoyable. Rather than look at the items on my to-do list as tasks to complete, I tried to look at them as opportunities to learn. I found this to be much more enjoyable and I think it helped me get more from my degree.



A HSU student diver doing scientific surveys off the coast. Credit: Rich Alvarez (Diving Safety Officer at HSU)

HONORABLE ALUMNI

Dr. Kristin Brzeski

M.S. in
Wildlife Biology 2010

< Dr. Kristin Brzeski in the field with her son Lawrence, March 2021. Photo credit: Karen Saucedo

What do you do for work/research?

I am an Assistant Professor in the College of Forest Resources and Environmental Science at Michigan Technological University, where my research focuses on wildlife genetics, conservation, and management. My students and I manage a diversity of projects spanning from using environmental DNA technologies to explore biodiversity in Central Africa to informing science-based black bear harvests in the Upper Peninsula of Michigan. The work I am most passionate about is my research with the endangered red wolf. I am currently leading efforts along the Gulf Coast of Louisiana and Texas to determine the extent that red wolf genetics persist in regional coyotes. While red wolves were previously thought to be extinct from this region, myself and colleagues are discovering coyotes that contain high amounts of red wolf genetic material. I am striving to understand the genetic ancestry and ecology of these unique Gulf Coast canids and develop novel genetic tools to harness lost genetics that could help the living endangered red wolf population. Importantly, I am working with local partners to develop regional pride and interest in Gulf Coast canids to promote carnivore co-existence. Please see the Gulf Coast Canine project for more details.

A red wolf (*Canis rufus*).
Credit: CC 2.0
Magnus Manske

How have you used the opportunities offered to you to advance?

I would not be in my current position if it wasn't for my time in the HSU Wildlife Program. I had an interdisciplinary environmental science background before graduate school and really did not know what 'wildlife science' fully entailed. But luckily, Dr. Micaela Szykman Gunther took me on as a MSc student and I thrived in the HSU environment. The program was based in the outdoors and focused on sound conservation science. I found my professional footing, future career goals, and husband (!) while at HSU. My master's research set me up for my PhD, which rolled into a Postdoctoral fellowship, and eventually a faculty job, all utilizing the molecular genetics and research skills I developed at HSU.

Advice for grad students?

I know it sounds cliché, but in my experience, people are not successful or satisfied in their chosen profession unless they are pursuing passions. It is not easy to work field jobs, desk jobs, or whatever job without having the drive and desire to do the work you do. So, pursue what you find intriguing or a field of study that you love, because that is what gets you through the long days and weekends of hard work that is required to be a successful graduate student.