



STUDENT INTERNSHIP APPLICATION FORM - SUMMER 2021

All information on this form must be typed.

Internship Information

Internship Host:	California Department of Fish and Wildlife Marine Region
Internship Title:	Northern California Marine Invertebrate Fisheries Management Internship
Internship Location:	Bodega Bay

Applicant Information

First Name:	Gabrielle	Last Name:	Yang
Student ID:		CSU Campus:	Pomona
Primary Email:		Major:	Environmental Biology
Phone:		Overall GPA:	
Status (Soph, Junior, Senior, Grad Student):	Senior	Anticipated Graduation (mm/yyyy):	06/2022
Date Spring Semester/Quarter Ends:	May 21st	Date Available to Start Internship:	May 22nd
Will you be enrolled at a CSU for Fall 2021? (Y/N)		Y	

Have you previously been employed by, interned with, or volunteered for the internship host?

Comments (If yes, please describe):

Relevant Experience

For each section below, provide the information requested that complements the areas of knowledge listed in the Preferred Experience and Capabilities and/or Eligibility/Requirements sections of the internship you have selected. The boxes below will expand as you type; please feel free to use as much space as you need.

List academic coursework (e.g., marine ecology or biology, fishes of California, statistics, etc.):

Animal Biology, Basic Microbiology, Basic Soil Science, Biological Effects of Climate Change (graduate level course), Biostatistics (R), Ecology, Ecotoxicology, Evolution, Geographic Information Systems (GIS), General Chemistry, General Epidemiology, Genetics, Global Regenerative Systems, Integrated Pest Management, Interpretation of Science (Service Learning), Introduction to Arthropods, Marine Botany, Organic Chemistry, Physics, Principles of Geology, Public Administration, Undergraduate Research

List computer programs in which you are proficient (e.g., Microsoft Word, Excel, Access, R, Matlab, ArcGIS, minitab, Solidworks, etc.):

Microsoft Word, Microsoft Excel, Microsoft PowerPoint, ArcGIS, R, SeaGIS EventMeasure

Describe your field and/or laboratory experience (include experience gained through coursework as well as independent study):

Undergraduate research assistant in Dr. Jeremy Claisse's Marine Ecology Laboratory. Currently completing an independent project analyzing stereo-video data to compare the density and size structure of *Zebrasoma flavescens* in MPAs and open fishing areas off the Kona Coast of Hawaii. Assisted Dr. Claisse's master's students in their projects. I developed proficiency in laboratory methods and processed samples for gonad histology, gut contents, and stereo-video analysis of *Hypsypops rubicundus*. Assisted in lab website development (claisselab.com). Completed the Motorboat Operator Training Course (MOTC) at the Southern California Marine Institute and cleared as a boat tender for fieldwork. PADI Open Water and Advanced Open Water certifications.

Aided Dr. Jayson R. Smith with his Long-Term Monitoring Project on the Southern California rocky intertidal. Recorded data of common invertebrates and did density counts on limpets.

Volunteered for NOAA completing marine debris monitoring. Transects were laid out on specific sites and debris particles were recorded, then categorized, onto a sheet to be inputted on Microsoft Excel.

Learned ArcGIS through my Geographic Information Systems course by completing a project determining what environmental factors or climate zones affect wildfire spread.

Interpretation of Science Course is a senior/graduate capstone course that I took my first summer at Cal Poly Pomona. Taught K-12 students about the sciences in terms of animal biology, ethnobotany, and Native American culture. Attained my Certified Interpretive Guide certification through the National Association for Interpretation from this course.

Marine Botany, by Dr. Jayson Smith, had fieldtrips where proper ID of algae was taught.

Interest and Qualifications

Please complete the sections below. The boxes below will expand as you type; please feel free to use as much space as you need.

Please describe why you are interested in a summer internship in general. What do you hope to gain, learn and experience?

As someone who has always been interested in the sciences ever since I was little, I am always looking for new opportunities to gain more knowledge. Although my undergraduate career is starting to come to its end, I have yet to complete a summer internship. My summer has been occupied with attending courses at a community college, due to affordability, or only helping my graduate students when they needed assistance in the lab. I want to experience a different type of project, new techniques, presenting to new audiences, and just how to adapt to another environment. Finding new ways to complete similar procedures in a laboratory setting opens my perspective and allows me to extend that knowledge to others for a more streamlined process. I also want to properly present something either at a meeting, symposium, forum or even to the general public. Communication is such an important aspect in any career setting and these internships will give me plenty of opportunities to talk to others and gain connections. The information I will learn from the internship will be valuable when I return to my research lab at Cal Poly Pomona. What I find the most exciting is gaining new information and being able to apply it to other situations. That's when I know I have successfully taken the most out of my summer internship experience.

How do you feel the internship you have selected will complement your educational experience at the CSU?

COAST has been a large factor in doing marine research at Cal Poly Pomona. The organization has offered plenty of opportunities to fund my research, help me attend forums, and provide internships through the CSU system. This is my last year to apply for summer internships and the Northern California Marine Invertebrate Fisheries Management Internship is one that specifically caught my eye. The internship contains two factors of science that I am particularly interested in: research and management. Although I have taken a plethora of science-related courses that revolve around my major, what I found the most interesting were the courses I had to take for my Environmental Health Specialist minor. I find the courses related to policy and public administration are a different perspective I have not considered to be a part of my curriculum. I have learned in my courses is that to change our society's mindset to create a more sustainable, environmentally compatible future, a large step is through policy and advocacy. I enjoy doing research and using that data to help decide how to manage important factors in our natural resources. I have done lab and fieldwork on my campus; I would like to expand my opportunities and connections by experiencing completing a project through a different organization.

What are your educational and career goals?

As I am nearing the end of my undergraduate career, I realized that attending Cal Poly Pomona has been one of the best decisions I have made. The faculty and staff are helpful, compassionate, and have given me opportunities I never believed I could achieve. I am a strong believer in the phrase “college is what you make of it,” and I continue to live by those same ideals. An educational goal of mine is taking courses relating to my major, but also taking advantage of all the opportunities they give me. The Interpretation Science course I took my first summer is supposed to be restricted for seniors and graduate students, however, I thought I could keep up with the content as well as benefit from the curriculum because I have experience as a tidepool docent, interpreting environmental information to the general public. I was accepted into the course after emailing the instructors and demonstrating my capabilities. The Biological Effects of Climate Change is also a graduate-level course taught by Dr. Jayson Smith, and because I passed previous classes and aided him in fieldwork, I was allowed to take this course. I attend every lecture, participate in all the field trips, and stay after class because of my insatiable desire to learn more. After I finish my undergraduate degree, I am planning on attending graduate school. I will pursue a master's in ocean science, environmental conservation, or resource management. I would eventually seek to work in a city or state government department of natural resources, or the like, specifically focusing on marine and coastal management. Through my connections during my undergraduate and graduate career, I know I will be able to attain my career goals with the dedication I have for my major.

Please describe your interest in the internship you have selected.

- **What interests you most?**
- **Why do you feel you are uniquely qualified for this opportunity? Please be sure to include your specific skills and qualifications and address the Preferred Experience and Capabilities section of the internship description.**

Please be as detailed as possible. This section is extremely critical in evaluating your application. The box below will expand as you type; please feel free to use as much space as you need.

When I was a little girl, my mother would drive me along the Southern California coast to see the various beaches and visit aquariums. I have always had an appreciation for the ocean, but I never knew how far it could influence my future. My spark of interest in science stems from my high school experiences with the City of Newport Beach and Back Bay Science Center. I began volunteering as a tidepool docent, doing marine husbandry, and water quality testing. Soon after I took an internship position focusing on Marine Protected Areas. There I met one of my mentors and future professors, Dr. Jayson Smith, at a workshop that helped fuel my attraction to the sciences. During the first two years at Cal Poly Pomona, I continued having that drive to be involved with research because I wanted to attend graduate school but lacked the knowledge to get there. It was not until I was paired with a mentor for the Achieve Scholars Program (ASP) that I was able to gain the knowledge and confidence to attempt undergraduate research. I became involved with Dr. Jeremy Claisse's research lab and with his guidance, I was accepted into the Scholars Program in Research, Education, and Science (SPIRES) and the next year the Louis Stokes Alliances for Minority Participation (LSAMP) fellowship. I felt honored to be in these programs because of the workshops, advisor assistance, and funding. As someone who comes from a low-income household and relies heavily on financial aid, being paid to do what I love helps me focus on achieving my goals.

My first experience in undergraduate research consisted of histology work on *Hypsypops rubicundus* using paraffin embedding and staining techniques under the supervision of one of the graduate students. Soon after I began helping a graduate student in his gut analysis of *H. rubicundus* and started an independent project on *Zebrosoma flavescens* on the Kona Coast of Hawaii. I am grateful for SPIRES, LSAMP, and the California State University Council on Ocean Affairs, Science and Technology (COAST) Undergraduate Research Funding Award for allowing me to pursue what I have always wanted to do. In previous years, I would take up a part-time job to pay for my education. Trying to balance education, research, extracurriculars, and work was difficult, and I could see the effect it had on my academics. After being accepted into a fellowship that paid for the research I completed, I could relive at least one of my duties which motivated me to put more effort into my work.

The Northern California Marine Invertebrate Fisheries Management Internship caught my interest because of the new opportunities the program will provide that will further my career in research and management in the sciences. I am passionate about learning how anthropogenic effects, such as climate change, have affected our marine and coastal environment and how we can work together to fix it. The internship program will allow me to widen my experience through combining science and policy with research, data analysis, and interviewing fishers. The ability to interpret and communicate science is a powerful tool I wish to improve on. I know I am qualified for this internship because I have experience in science communication and have the insatiable passion to experience more lab and fieldwork. In my research lab, we attended the Offshore Oil Platform Decommissioning Forum at the Aquarium of the Pacific where Dr. Claisse spoke about his research on oil platforms as manmade reef habitats. Large companies, such as Chevron, attended and I was able to speak to many high officials from oil companies. Although I am not AAUS certified, I have the PADI open water and advanced open water certification, so I am familiar with common scuba gestures, operations, and procedures. I have also completed the Motorboat Operator Training Course through the Southern California Marine Institute and am cleared as a boat tender for my research lab's fieldwork. The skills I already have can only be built upon with this internship. I am a passionate individual that continues to find new opportunities in the sciences, and I am unafraid to reach out to create new opportunities for myself.