

# JOHN AMIEL FLORES

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## EDUCATION

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- PhD Ecology and Evolutionary Biology** Sept. 2021 – Present  
University of California, Los Angeles  
Advisor: Dr. Paul Barber  
GPA: 4.0
- BS Evo. Eco. & Biodiv. with Honors** Sept. 2017 – June 2021  
University of California, Davis  
Mentors: Dr. Rachael Bay, Dr. Anne Todgham  
GPA: 3.86

## RESEARCH EXPERIENCE

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- Barber Lab**, University of California, Los Angeles Sept. 2021 – Present  
Advisor: Dr. Paul Barber
- Utilizing metabarcoding and metagenomics to describe the epibiont communities on burgeoning *Turbinaria* rafts in the South Pacific and understanding their potential as vectors of dispersal for toxic dinoflagellates, coral pathogens, and other microorganisms.
- The Diversity Project**, University of California, Los Angeles June 2021 – Aug. 2021  
Advisors: Dr. Paul Barber and Dr. Peggy Fong
- Collaborated with other researchers explore the effects of simulated storm disturbance of differing magnitude on the short term ‘transient’ dynamics of the herbivore fish community.
  - Conducted field experiments via SCUBA and snorkeling, processed fish behavior videos collected from the field, and analyzed data for presentation.
  - Earned American Academy of Underwater Sciences (AAUS) Scientific Diver Certifications.
  - Achieved Master SCUBA Diver Certifications National Association of Underwater Instructors (NAUI).
  - Presented findings at conferences, symposiums, and as a guest speaker for several UCLA courses.
- Bay Lab**, University of California, Davis Nov. 2019 – June 2021  
Advisor: Dr. Rachael Bay
- Reviewed and analyzed peer reviewed scientific articles relating to coral biology.
  - Gathered and analyzed data from available published data for a meta-analysis project identifying genomic diversity in *Acropora* and *Porites* species.

- Worked in collaboration with other lab members to identify different factors that may contribute to coral genomic diversity.
- Gathered environmental data that may potentially be shaping genetic diversity in species of *Acropora* and *Porites*.
- Presented findings at conferences and symposiums.

**Todgham Lab**, University of California, Davis

Oct. 2018– June 2021

Advisor: Dr. Anne Todgham

- Conducted environmental change experiments on western mosquitofish (*Gambusia affinis*).
- Helped in the initial exploration and organization of a mosquitofish project for a graduate student in the lab.
- Helped investigate the effects of temperature and oxygen levels on the early life stages of Chinook salmon (*Oncorhynchus tshawytscha*)
- Created a temperature ramping apparatus for Critical Thermal Maxima Tests.
- Designed, conducted, and presented results from my independent research experiment at symposiums.

## **TEACHING AND MENTORSHIP EXPERIENCE**

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### **Graduate Teaching Assistant – Communicating Science about Health Disparities and the Environment (EE BIOL c179 at UCLA)**

April. 2022 – June 2023

### **Graduate Teaching Assistant – Researching Health & Pollution Exposure (EE BIOL 187 at UCLA)**

Jan. 2023 – March 2023

### **Graduate Teaching Assistant – Intro to Marine Science (EE BIOL 109 at UCLA)**

Sept. 2022 – December 2022

### **Near Peer Mentor – UCLA The Diversity Project**

June 2022 – Aug 2022

Aided trainees through scientific diving training. Mentored trainees through the scientific process and provided connections and resources in marine sciences.

### **Tutor – UC Davis Academic Assistance and Tutoring Center**

Sept. 2020– June 2021

Courses Tutored

- Structure & Function of Biomolecules (BIS 102)
- Organic Chemistry: Brief Course (CHE 8 Series)

### **Co-Instructor – The BUSP Mindset: First Year Aggie Connection (BIS 98 at UCD)**

Sept. 2020 – December 2020

### **Head Tutor – UC Davis Leaders of Achievement in Biological Sciences**

Sept. 2019 – June 2021

Lead problem solving workshops for second year BUSP UC Davis students enrolled in Introductory Biology (BIS 2 series). Organize and attended study sessions for BUSP students. Evaluated and mentored tutors through their problem-solving workshops.

Courses Tutored:

- Introduction to Biology (BIS 2 Series)
  - Essentials of Life on Earth (BIS 2A)
  - Principles of Ecology & Evolution (BIS 2B)
  - Biodiversity & the Tree of Life (BIS 2C)

### **Peer Mentor – UC Davis Biology Undergraduate Scholars Program**

Sept. 2018 – June 2021

Mentor and aided UC Davis BUSP underclassmen on transitioning into university life.

Guided students through the introductory chemistry (CHE 2) and calculus (MAT 17) series.

Courses Tutored:

- General Chemistry (CHE 2 Series)
- Calculus for Biology & Medicine (MAT 17 Series)

## **HONORS AND AWARDS**

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<b>Southeast Asia Foreign Language and Area Studies Fellowship</b> (\$8,000) UCLA Center for Southeast Asian Studies	2023
<b>NSF Graduate Research Fellowship Program</b> (\$49,000 per year over 3 years) National Science Foundation	2023
<b>Pauley Fellowship</b> (\$30,000) University of California, Los Angeles	2021
<b>Competitive Edge Fellowship</b> (\$6,000) University of California, Los Angeles	2021
<b>Departmental Citation in Evo., Eco., and Biodiv.</b> UC Davis Department of Evolution and Ecology	2021
<b>Distinguished Scholar Award</b> UC Davis College of Biological Sciences	2021
<b>Barry Goldwater Scholarship Nomination from UC Davis</b>	2020
<b>BUSP Honors Summer Research Fellowship</b> (\$3,240) UC Davis Biology Undergraduate Scholars Program (BUSP)	2019
<b>BUSP Most Outstanding 2nd Year</b> UC Davis Biology Undergraduate Scholars Program	2019

<b>BUSP Most Outstanding 2nd Year</b> UC Davis Biology Undergraduate Scholars Program	2021
<b>UC Davis Dean's Honors List</b>	2017 – 2021
<b>Joannie Mukai Scholarship (\$500)</b>	2021

## **PUBLICATIONS**

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**Flores, J.A.**, Hayes, H., Williams, L., Fong, C.R., Holbrook, S.J., Schmitt, R.J., Barber, P.H., Fong, P. Physical Disturbance to Foundational Macroalgal Communities on Coral Reefs Causes Rapid Changes in Use by Herbivorous Fish Communities. In prep.

## **PRESENTATIONS, INVITED LECTURES, AND CONFERENCES**

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**Flores, J.A.**, Hayes, H., Williams, L., Fong, C.R., Holbrook, S.J., Schmitt, R.J., Barber, P.H., Fong, P. Physical Disturbance to Foundational Macroalgal Communities on Coral Reefs Causes Rapid Changes in Use by Herbivorous Fish Communities. Western Society of Naturalists Conference, November 10-13, 2022. Poster Presentation.

**Flores, J.A.**, Hayes, H., Williams, L., Fong, C.R., Holbrook, S.J., Schmitt, R.J., Barber, P.H., Fong, P. Physical Disturbance to Foundational Macroalgal Communities on Coral Reefs Causes Rapid Changes in Use by Herbivorous Fish Communities. New Horizons in Conservation Conference, March 29- 31, 2022. Virtual Oral Presentation.

**Flores, J.A.**, Hayes, H., Williams, L., Fong, C.R., Holbrook, S.J., Schmitt, R.J., Barber, P.H., Fong, P. Physical Disturbance to Foundational Macroalgal Communities on Coral Reefs Causes Rapid Changes in Use by Herbivorous Fish Communities. Ocean Sciences Meeting, February 24-March 4, 2022. Virtual Oral Presentation.

**Flores, J.A.**, Hayes, H., Williams, L., Fong, C.R., Holbrook, S.J., Schmitt, R.J., Barber, P.H., Fong, P. Physical Disturbance to Foundational Macroalgal Communities on Coral Reefs Causes Rapid Changes in Use by Herbivorous Fish Communities. Guest Lecture for UCLA Spring Marine Biology Quarter, April 4, 2022. Virtual Oral Presentation.

**Flores, J.A.**, Hayes, H., Williams, L., Fong, C.R., Holbrook, S.J., Schmitt, R.J., Barber, P.H., Fong, P. Physical Disturbance to Foundational Macroalgal Communities on Coral Reefs Causes Rapid Changes in Use by Herbivorous Fish Communities. Guest Lecture for UCLA Winter Marine Biology Quarter, January 6, 2022. Virtual Oral Presentation.

Dellinger, R., **Flores, J.A.**, Rumberger, C., Armstrong, M., Benson, B.E., Bay, R. Assessing the Drivers of Genetic Diversity on Coral Reefs. UC Davis Undergraduate Research Conference, April 28-May 1, 2021. Virtual Oral Presentation.

**Flores, J.A.**, Nelson, F., and Todgham, A.E. Thermal Tolerance and Heat Hardening Ability Between Sexes in *Gambusia affinis*. Western Society of Naturalists Conference, November 5-8, 2020. Virtual Poster Presentation.

**Flores, J.A.**, Nelson, F., and Todgham, A.E. Thermal Tolerance and Heat Hardening Ability Between Sexes in *Gambusia affinis*. UC Davis Undergraduate Research Conference, April 28-May 1, 2020. Virtual Poster Presentation.

**Flores, J.A.**, Nelson, F., and Todgham, A.E. Thermal Tolerance and Heat Hardening Ability Between Sexes in *Gambusia affinis*. UC Davis Educational Enrichment & Outreach Programs (EEOP) Annual Poster Symposium, Davis, CA, August 29, 2019. Poster Presentation.

## **AFFILIATIONS**

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<b>Center for Diverse Leadership in Science (CDLS)</b>	2021 – Present
<b>Association for the Sci. of Limn. and Ocea. (ASLO)</b>	2021 – Present
<b>Soc. for Adv. of Chic./Hisp. &amp; Native Am. in Sci. (SACNAS)</b>	2021 – Present
<b>Western Society of Naturalists (WSN)</b>	2020 – Present
<b>Leaders of Achievement in Biological Sciences (LABS)</b>	2019 – 2021
<b>Bio. Undergraduate Scholars Program Honors Research (BUSP-HR)</b>	2019 – 2021
<b>Bio. Undergraduate Scholars Program (BUSP)</b>	2017 – 2019

## **SCIENCE OUTREACH**

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### **K-12 Outreach Group – UCLA Center for Diverse Leadership in Science**

Sept. 2021 – Present

Organize and participated in science enrichment activities with schools in the local Los Angeles area. Presented a webinar on the topic of food chain and food webs to students at El Dorado Elementary School.

### **Math & Sciences Academy – UC Early Academic Outreach Program**

May 2022; May 2023

Organized volunteers to help facilitate the activities for the Marine Biology Module of the program. Designed presentation and hands on activities on shark physiology and technology used in marine sciences tailored to high school students in the LA County Area.

### **Pen Pal – Letters to a Pre-scientist**

Sept. 2022 – Present

Exchange letters with a middle school pen pal who shared similar science interests. I share my journey and experiences as a scientist and student in college and raise awareness of what a scientist and a career in science looks like.

### **Student and PostDoc Experience Roundtable – California Ocean Science Trust**

Jan. 2022

Participated in a series of roundtable discussions with students and faculty on obstacles and solutions to institutional change to cultivate a more inclusive, equitable and diverse academic culture.

**Student Panelist – UC Davis Student Learning Outcomes Symposium**

Sept. 2020

Invited to speak at the UC Davis Student Learning Outcomes Symposium to share my thoughts, experiences, and suggestions to UC DAVIS faculty on student learning in virtual classes and effects of COVID-19 on student learning.

**Pen Pal – BUSP and Lee Middle School**

Sept. 2018 – June 2021

Shared my experiences as a scientist and student in college through exchanging letters with students from Lee Middle School in Woodland, CA through a pen pal program through BUSP. Lead a campus tour for students from Lee Middle School.

**CERTIFICATIONS**

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American Academy of Underwater Sciences (AAUS) Scientific Diver  
National Association of Underwater Instructors (NAUI) Master SCUBA Diver  
NAUI Advanced Rescue Diver  
CPR and First Aid

**SKILLS**

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**Computer Skills**

Proficiency with Microsoft Office (Word, Excel, and PowerPoint), ImageJ, and R. Website design through Wix.

**Laboratory Skills**

DNA extractions	Anti-predator response test
Polymerase Chain Reactions (PCR)	Fish husbandry
Gel Electrophoresis	Fish dissections
Critical Thermal Maximum Methodology	Bacterial transformations
Hypoxia tolerance test	Bacterial inoculation via solid and liquid cultures
Anxiety behavior test	

**Field Skills**

Identifying invertebrates of the major invertebrate phyla using comparative morphology, natural history, ecology, and behavior of living invertebrates.  
Identifying Pacific reef fishes using morphology, natural history, ecology, and behavior.  
Handling organisms from freshwater and marine environments.