PAIGE HOEL

Nothing great was ever achieved without enthusiasm

EDUCATION

University of California, Los Angeles   2019 - present
Ph.D. Candidate, Oceanography, Advisor Daniele Bianchi

> Working with the ocean biogeochemistry and ecosystem group led by P.I. Daniele Bianchi. Focusing on analysis of the coupled physical and biogeochemical modeling of the Southern California Bight.
> **Expected graduation: June 2024**

University of California, Los Angeles   2019-2022
MSc. Atmospheric and Oceanic Science

> **Conferred: March 18, 2022**

University of California, Santa Barbara   2014-2018
BSc. Earth Science (climate emphasis), BSc. Physical Geography

RESEARCH INTERESTS

My research interests include coastal oceanography, biogeochemical modeling, kelp and macroalgae, ocean acidification, harmful algal blooms, Southern California Bight, GIS, coastal management, and scientific communication.

RESEARCH EXPERIENCE

NOAA Office of Ocean Exploration and Research   2022
Explorer in Training

> Conducted mapping operations aboard the RV Okeanos Explorer for a month cruising in the US EEZ of Puerto Rico. As an Explorer-in-Training I assisted with hydrographic data gathering, cleaning, and exploration. In addition I contributed figures and analysis in the cruise report as well as creating an interactive GIS dashboard summary of the cruise.

GO SHIP A-20 Cruise   2021
CTD watch-stander

> Worked aboard the RV Thomas Thompson for a month cruising on the repeat hydro-graphic survey line A20. As a CTD watch-stander I assisted with all CTD rosette operations, in addition to taking samples of salinity and nitrate isotopes.

National Center for Atmospheric Research   2018-2019
Scientific visitor

> Worked on GIS related tasks and information for the National Security Applications Program in the Research Applications Lab. In this position, I produced maps necessary for NCAR scientists in addition to conducting research under specific grants. I worked in ArcGIS Pro, ArcGIS online, and created GIS based Storymaps for projects with collaborators in academia, government, and private industry.

Coast Lab at UCSB   2017-2018
Undergraduate research fellow

> Aid to the Coast lab in their ecosystem metabolism metadata search. Worked through 60 years of previous ecosystem analysis to extract the source of data, the method of data sampling, and potential environmental factors that would cause outliers or extreme results.

UCSB Earth Science Department   2017-2018
Senior Thesis

> Completed a senior honors thesis titled "Modeling threat of runoff to coastal ocean environments" This work was done in collaboration with Benjamin Halpern and Alexa Freedston at the Bren School of Environmental Science and Management.

TEACHING EXPERIENCE

Teaching Associate   2020-Present
UCLA Atmospheric and Oceanic Science Department

I have been a teaching assistant for AOS 1-Climate Change: from puzzles to policy (Spring 2020, Fall 2020, Spring 2021, Fall 2021, Winter 2022, Fall 2022), a large (100+ students) general education course in addition to AOS M105-Chemical Oceanography (Winter 2023). I hold weekly discussion sections, office hours, and grade homework and exams.

Climate Change for Cool Kids `2020-Present`
Creator

Created a two month long informal lecture series aimed at presenting climate science in a fun, casual, and digestible manner to non-scientists. The lectures led to the creation of a monthly climate newsletter (ongoing), aimed at informing the same non-scientific audience of exciting developments in the world of climate science.

Lead Instructor `2021`
GIS for Community Health Workshop

Served as one of two primary instructors for a community engagement partnership with the Esparanza community and UCLA's Center for Diverse Leadership in Science. The instruction gave participants an introductory knowledge on how to use GIS, how to acquire spatial data, and spatial data analysis. Duties included development of the entire workshop, leading lectures, communicating with community leaders, holding office hours, developing tutorials, and providing individual feedback for participants.

Private tutor `2015-Present`
Fiat Lux Tutoring

I have over 8,000 hours of experience as a private math and science tutor. I serve primarily high school and college students in the Los Angeles area in person as well as remotely tutoring students. I have experience in all age ranges, and specialize in calculus, chemistry, and test prep.

SELECTED PUBLICATIONS AND PRESENTATIONS

- Hoel, P. The human-kelp connection: are we impacting the spatial patterns of kelp in Southern California? Oral presentation (invited), UC GIS Week Conference, November 17, 2022

- Hoy, S., Peliks, M., Freitas, D., Gillespie, T., Wilkins, C., Hoel, P., ... Egan, K. (2022). Mapping Data Acquisition and Processing Summary Report: EX-22-03, Puerto Rico Mapping and Deep-Sea Camera Demonstration (Mapping and Tech Demonstration).

- Hoel, P., Fredston, A., Halpern, B.S., 2022. An Evaluation Framework for Risk of Coastal Marine Ecological Diversity Loss From Land-Based Impacts. Front. Mar. Sci. 9, 796050. https://doi.org/10.3389/fmars.2022.796050

- Hoel, P. Buoyancy and biomass! Exploring the relationships of biogeochemistry plume dynamics from deep ocean outfalls in Los Angeles and Orange County. Poster Presentation, SoCal BOOM, Los Angeles, CA, March 26, 2022

- Hoel, P. Comparing influence of physical dynamics and nutrient additions of Southern California waste water outflows. Oral Presentation, Coastal Estuarine Research Federation (CERF) 2021 Virtual conference, November 3, 2021.

- Hoel, P.*, Bianchi, D., Anderson, C., Kudela, RM., Kessouri, F., Sulta, M., Deutsch, C., Smith, J., and Moreno, A.. Integrated Modeling of Harmful Algal Genus Pseudo- Nitzschia to Support Ecosystem Prediction and Environmental Management in the Southern California Current System. Poster presentation, AGU Ocean Sciences, San Diego, CA, February 16, 2020

- Boehnert, J., Dobson, G., and Hoel, P. 2020. GIS Tutorial for Atmospheric Sciences. UCAR and UNC-Asheville, Online at: https://gis.ucar.edu/

- O'Lenick CR, Baniassadi A, Michael R, Monaghan A, Boehnert J, Yu X, Hayden MH, Wiedinmyer C, Zhang K, Crank PJ, Heusinger J, Hoel P, Sailor DJ, Wilhelmi OV. A Case-Crossover Analysis of Indoor Heat Exposure on Mortality and Hospitalizations among the Elderly in Houston, Texas. Environ Health Perspect. 2020 Dec;128(12):127007. doi: 10.1289/EHP6340. Epub 2020 Dec 10. PMID: 33300819; PMCID: PMC7727721.

- Hoel, P., What risks do coastal oceans face? Storymap presentation, ESRI User Conference, San Diego, CA, July 6, 2019

- Hoel, P., Risk of change to Coastal Ecosystems: adapting a runoff analysis framework to GIS, Oral Presentation, Association of American Geographers Annual Meeting, Washington DC, April 4, 2019.

AWARDS AND HONORS

2021	Morris Neiburger Award, UCLA ($1,000)
2020 - 2023	Early Career Fellow, Center for Diverse Leadership in Science, UCLA ($1,000)
2020	Morris Neiburger Award, honorable mention, UCLA
2019	Best Spatial Analysis Storymap, ESRI User Conference
2018	Graduation with high honors distinction, UCSB

SELECTED LEADERSHIP AND SERVICE

EDGE Youth Leadership   2022-present
Emcee and Program Team

UCLA Chi Epsilon Pi (XEP)   2020-2022
President, Recruitment chair, Social Media chair

UCLA Atmospheric and Oceanic Science Department   2021-2022
Student Representative, Admissions Committee

UCLA Environmental Justice Working Group   2020-2022
Member

EDGE Youth Leadership   2018-2021
Mentor and Team Lead

PROFESSIONAL REFERENCES

Daniele Bianchi- Assistant Professor, UCLA Atmospheric and Oceanic Science Department
    CONTACT: dbianchi@atmos.ucla.edu (Academic)
Nick Nidzieko- Assistant Professor, UCSB Geography Department
    CONTACT: nnidzieko@ucsb.edu (Academic)
Olga Wilhelmi- Project Scientist, National Center for Atmospheric Research
    CONTACT: olgaw@ucar.edu (Character)
Allison Moreno- Post-Doc Researcher, UCLA Atmospheric and Oceanic Science Department
    CONTACT: allimoreno@atmos.ucla.edu (Character)

CONTACT INFORMATION

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