

## Education

- 2024– **PhD in Biophysical Oceanography**, *Columbia University/NASA GISS joint program*, Under supervision of Anastasia Romanou., Researching single and compound marine extremes and ecosystem responses.
- 2019–2023 **MSci Natural Sciences**, *University College London*, First Class Honours  
**Literature review** and **Research project** on sea ice melt ponds leading to combined publication. Received **Elena Bossy Prize** for making a “significant contribution to [my] degree programme and to the spirit of the Department.” See “Experience” for Master’s project details.

## Publications

- In preparation **How does dust modify marine heatwave-low chlorophyll compound extremes?**, A. Quigley et al.  
We investigated whether dust modifies the intensity, duration, and frequency of MHW-LChl compound extremes and whether those effects differ from single MHW and LChl extremes.
- In preparation **Species distribution modelling for predicting spatial patterns of plankton diversity in the Southeastern Pacific Ocean**, S. Yañes et al.  
We integrated databases with ecological and biogeochemical information and incorporated probabilistic analyses to assess biodiversity responses to inherent environmental variability in climate change. I created all of the figures and assisted with data analysis and writing.
- In preparation **A spatially-explicit South Pacific epipelagic ecosystem characterization to advance conservation policy**, S. Yañes et al.  
We used physical and biogeochemical environmental parameters to characterize and classify distinct biogeochemical regions in the South Pacific. I created one figure and assisted with data analysis and writing.

## Skills

- Computation Proficient in Python and R, with additional experience in  $\LaTeX$ , MATLAB and Java. Used both Python and R to undertake high-performance numerical research.
- Communication Created science a cappella parody of “Under the Sea” about thermohaline circulation, which was featured on the Earth Science department’s website. Worked as a tutor for three years. Fluent in English, conversant in Spanish and Italian, learning French.
- Management Operations Manager for Gigi’s Cupcakes, a small business in New Jersey. President of Greenough (UCL Earth Sciences) Society.
- Organization Created financial plan for Gigi’s Cupcakes. Arranged individual research project on melt ponds. Supervised research operations for Underwater Africa.

## Experience

### Academic

- 2025 **CTD Operator**, *GO-SHIP I09N*, Scripps Institution of Oceanography  
Spent 41 days at sea, monitored and maintained equipment to collect depth profile data, collected water samples.
- 2024 **Research Project Volunteer Supervisor**, *Underwater Africa*, Barra, Mozambique  
Organized underwater camera traps, supervised and aided in zooplankton identification, recorded elasmobranch and cetacean sightings, wrote scripts to compile and combine physical and biogeochemical variables to model humpback whales’ environmental preferences.

- 2023 **ClimEco8 Summer School**, *Integrated Marine Biosphere Research (IMBeR)*, Koper, Slovenia  
Studied interdisciplinary uses for natural and social sciences in improving marine resilience and sustainability.
- 2022–2023 **Master’s Project**, *Department of Earth Sciences*, UCL  
Investigating Ekman and geostrophic circulation in polar regions, using Python to model and create maps of surface currents and upwelling and downwelling. Under supervision of Dr. Michel Tsamados at the Centre for Polar Observation and Modelling.
- 2022 **Individually Designed Research Project**, *Department of Earth Sciences*, UCL  
Applied Random Forest machine learning to Sentinel-2 satellite images to identify melt ponds on sea ice and compare the algorithm’s efficacy on sea ice to land ice.
- 2021 **Summer Research Project**, *Department of Earth Sciences*, UCL  
Used Python to analyse CMIP6 data to investigate the potential effects of stratospheric aerosol geoengineering on climate variables including precipitation distribution.
- 2021 **Research Project**, *Department of Neuroscience*, UCL  
Analyzed correlation between oral microbiome composition and countries’ Parkinson’s Disease burden, used R to clean datasets and investigate metagenomics data.
- 2020 **Scientific Writing Project**, University of Chester  
Edited paper analyzing symbiotic interactions at cleaning stations, compared facultative and obligate cleaners’ foraging preferences on sharks’ bodies.
- 2019 **Divemaster and Research Project**, *Indo Ocean Project*, Nusa Penida, Indonesia  
Designed and implemented novel photographic coral mapping technique, conducted video and transect surveys to determine population density of commercially important fish species, briefed divers on boat safety and responsible marine life interactions.
- 2018 **Marine Science Internship**, *COREsea*, Koh Phangan, Thailand  
Conducted transect fish, benthic corallivore, and coral surveys, catalogued coral types and monitored bleaching, removed ghost nets and litter from reefs.
- 2017 **Marine Science Internship**, *Caye Caulker Fisheries Department*, Caye Caulker, Belize  
Conducted transect fish and coral surveys, compared size and abundance of commercially valuable fish in and around marine protected area, implemented manatee database, investigated efficacy of lobster fishing regulations.
- Volunteering**
- 2020–2023 **Various Roles**, *Greenough Society*  
Greenough Society is UCL’s Earth Sciences Society and aims to engage students with academic and careers talks, socials, and field trips.
- 2022–2023, President
  - 2021–2022, Treasurer
  - 2020–2021, Academic Secretary
- 2020–2022 **Treasurer**, *UCL SCUBA Club*  
SCUBA Club leads dive trips, organizes training courses, and teaches students about marine life.
- 2021–2023 **Social Secretary**, *UCL Women in Earth Sciences Society*  
WiES runs inclusive social and academic events geared toward women and non-binary people looking to enter or progress in Earth Science disciplines.

## Hobbies

- SCUBA Diving Certified PADI Divemaster (lowest level of dive professional) with over 200 dives. Saved a diver’s life when faced with a sudden down current on a deep dive.
- Rock Climbing Enthusiastic rock climber, both indoors and outdoors.
- Travel Visited over 60 countries, many of them solo – confident travelling anywhere and interacting with people of any culture.