

My academic goals include completing a PhD in Environmental Studies, furthering understanding of the dynamic land-sea margin in the fields of estuarine ecological processes, human contributions to environmental change, and the integration of local and scientific knowledge. My dissertation centers on potential interactions between sea-level rise and nitrogen pollution on salt marsh and mudflat habitats in Elkhorn Slough, California. I measure plant community response, plant physiological response to changes in inundation and nutrients, and denitrification, the transformation of sediment nitrate into gaseous forms of nitrogen. I expect to further basic research in ecology and contribute to conservation planning for threatened salt marsh habitats.

I grew up outside of London, England, and in West Marin, California, in a family of naturalists, birders and backpackers. Since completing a Bachelor and Master of Science in Earth Systems at Stanford University, I have worked for over five years in environmental science, including energy efficiency research and writing, biological research, communicating science to students and the public, and structuring and teaching interdisciplinary science undergraduate and graduate programs. I have a passion for teaching about the environment, and for bridging cultures and communities by connecting scientific knowledge with local knowledge.

My dissertation research calls on the foundation of my studies in estuarine and marine biology. My comparison of nitrogen transformations in runoff waters across salt marsh and mudflats has clear implications for coastal managers' concerns about nutrient pollution, in particular from agriculture and development, and my study of sea-level rise addresses concerns about erosion of estuarine sediments or inundation of salt marshes and the bigger picture of planning for climate change.