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American Meteorological Society

45 Beacon Street

Boston, MA 02108-3693

Dear AMS,

In the years leading up to my doctoral studies at Berkeley, I've explored change-making through a number of roles—with a field-based research internship at Archbold Biological Station, an interdisciplinary stint at Rochester Institute of Technology’s wetland ecology NSF-REU doing research at the intersection of policy, science, and philosophy, and I’ve even spent some time on popular science writing with my blog *Only the Wild Ones*. As a first-year PhD student in Environmental Science, Policy, and Management, I’ve continued to embrace the messiness of my discipline, and I’m eager to continue actively learning about effecting positive change from different angles. Ultimately, I hope attending the AMS Science Policy Colloquium will yield more insight into what it takes to effect change from the governmental side, how scientists can get involved, as well as to let me consider what it may look like to serve as a government scientist or policy maker once I’ve concluded my PhD.

Science doesn’t operate in a vacuum: this was made abundantly clear to me during my REU, where each week featured lectures from scholars across environmental disciplines. My primary project that summer was meant to be a philosophy of science paper on the tacit values that might enter into our consideration when we restore landscapes, but I quickly found that approach alone was deeply ineffectual when existing bodies of federal, state, and local legislation already shapes land-use patterns: to a great extent, I realized, this is where the meaningful conversation occurs. Shortly after concluding my time in Rochester I got to travel to Tucson, Arizona, where I was awarded a 2022 Udall Scholarship. The Udall Scholars Conference showed me that policy could be a potent tool for hashing out disagreements and bringing stakeholders to the table: I collaborated with peers from environmental engineering, indigenous studies, and a range of other fields on case studies meant to show us the practical challenges of tackling complex environmental issues like water distribution in the Colorado River Basin and overfishing in tribal lakes. My senior environmental capstone, for which I earned the Earle Bates Award for overall academic achievement, therefore included not only a strong ecological modeling component, but also a consideration of how policy in the Pantanal region of Brazil defines and treats invaders.

After graduation, I traveled to Archbold Biological Station, continuing to search for research opportunities that would put me at the intersection of policy and environmental science. The project I developed there – for which the manuscript is presently being prepared for submission to *Applied Vegetation Science* – examined the efficacy of the USDA Wetland Reserve Easement Program on plant communities. Tentatively, we found that while the WRE program promotes more diverse assemblies, further interventions are likely needed to approximate reference conditions. Now in the Gherardi Lab at Berkeley, I plan to continue leveraging our resources to research land management, carbon sequestration, and how good policy can incorporate them both. Participating in the AMS Colloquium in DC this December aligns perfectly with my goal of becoming not merely an academic scientist but a changemaker.

Thank you for considering my application.

Sincerely,

Tyler Bernard