

Personal Statement
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An ultimate goal of mine is to help maximize the value of natural resources for all people. To achieve that goal, I want to improve the relevance of science in developing policies regarding the environment and our use of natural resources. Thus far, my education and employment opportunities have taught me how everything fits together within our global ecosystem, and more importantly, how we derive benefits from a healthy environment. Only recently, through my master's, did I gain exposure to decision analysis, which has expanded my interest beyond fisheries, and opened my mind to otherwise overlooked relationships between and among data. Looking forward, I want to further my experience in addressing conservation and management problems through a structured approach, an aspect of science which relatively few projects grapple with.

I first learned about the discipline of natural resources through fishing. Out of fishing came concerns about sustainability, and wanting to know if my dad and I were keeping too many fish. I became curious about population dynamics when I saw its use in managing striped bass in the Chesapeake Bay. Inspired by the value of science in protecting a fishery I grew up with, I spent a lot of my undergraduate career focusing on population ecology, and exploring its foundational concepts. During my master's, as I gained more expertise in quantifying ecological processes, and programming computers, I started to understand the vast potential of these skillsets.

While advances in computational power can enable many to achieve optimization with the structured-decision-making process, this technology can also improve the way we communicate science. Though a lot of progress has been made in applying science to making decisions, complexities still hinder the communication of powerful concepts, which threatens the value of science altogether. To maximize my ability to effectively communicate science, I need to formalize complexities, and improve the transparency of concepts as they are utilized in making decisions regarding our natural resources. I see the integration of math modeling and computer application development as a crucial step for conveying science, and improving the public-science interface.

Aside from my academic and employment credentials, I spend a considerable amount of my free time engaged in outdoor activities, including fishing, SCUBA diving, gardening, hiking, and camping. Each one of these activities allows me to observe and interact with aquatic and terrestrial life, and I derive an enormous amount of my understanding of the natural world from these experiences. My time outside is very important to me, both as a learning tool, and a source of enjoyment. While the value of these experiences is difficult to quantify, I cannot think of a more powerful driver of my motivation and dedication to my career goals in natural resources.