First Draft

I'm interested in using methods in evolutionary biology and genetics to understand organismal adaptations and applying that understanding to ecological problems. In particular, I want to understand the role that developmental plasticity and genetics play in adaptations, and how they can be used to predict the response of organisms/communities to global environmental change. The poles are of particular interest as not only the epicenter for global climate change, but as they have emerged relatively recently, adaptations to these ecosystems are newer and potentially more resilient to change. Understanding the adaptations of organisms and predicting their response to climate change will allow for intelligent methods for conservation and policy recommendations.

Second Draft

I'm interested in using methods in evolutionary biology and genetics to understand organismal adaptations and applying that understanding to ecological problems. In particular,

I want to understand the role that developmental plasticity and genetics play in adaptations, and how they can be used to predict the response of organisms/communities to global environmental change. The poles are of particular interest as not only the epicenter for global climate change; but also, having emerged relatively recently, adaptations to these ecosystems are newer and potentially more resilient to change. However, the lack of diversity in polar ecosystems could hinder such adaptation to GCC. Understanding these contrasting forces of polar organisms/communities and predicting their response to GCC will allow for intelligent conservation of ecosystem services.