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Each of these resources encouraged me to reflect deeply about the integral role biodiversity plays in maintaining balanced ecosystems. From a diversity of species, to genetic diversity within a species, to a diversity of ecosystems themselves, these various types of biodiversity are each the product of years of evolution-driven "improvement" -- I found it fascinating to learn how species and ecosystems have evolved to operate more smoothly and to coexist more seamlessly over the years simply because time has allowed for evolution to take place. This slow, careful evolution stands in sharp contrast to the rapid and arguably reckless rate at which human industrialization and urbanization is currently taking place. From destroying ecosystems that thousands of species call home, to using toxic pesticides (that organisms have not yet had time to adapt to), to causing the planet to warm and thus jeopardizing temperature-reliant ecosystems such as the coral reefs, this human action has had catastrophic consequences for our planet's biodiversity.

In learning about the value of biodiversity, I came across one concept that I found fascinating: the idea of biomimicry. As *The Biomimicry Institute* explains, "Biomimicry is an approach to innovation that seeks sustainable solutions to human challenges by emulating nature's time-tested patterns and strategies." Essentially, biomimicry involves drawing inspiration from nature's "genius" (ex. the anatomy of a certain kind of bird's wings or the echolocation dolphins rely on to communicate) in order to create novel, eco-friendly solutions of our own (new agricultural techniques, sustainable architecture model, renewable energy sources etc). Learning about biomimicry served as yet another reminder of why biodiversity must be both celebrated and protected.

I also learned that the topic of biodiversity has been featured frequently in the news over the past few months as Congress has been debating whether or not to make changes to the Endangered Species Act, a wildlife and biodiversity protection act adopted in 1973 (the act has protected the bald eagle, along with countless other wildlife species). I have included a screenshot of something I posted on Instagram to educate others about this very important act.



Also, two summers ago, as a recipient of a student fellowship with the Earthwatch Institute, I had the opportunity to travel to Acadia National Park to assist with research on the effects of climate change on the biodiversity in the park. While in Acadia, I had the opportunity to participate in a bioblitz, which is essentially a 2-4 hour long, biodiversity data collecting event. Volunteers and scientists alike work side by side, observing, photographing, and then cataloguing all the biodiversity in a given area over the course of a few hours. The classifications are then uploaded to a website called iNaturalist and, after being verified by professional scientists, each classification contributes to a "map" of biodiversity worldwide.

I had included the link to a blog article I wrote about my experience participating in the bioblitz. (*BENEATH THE HEADING DAY #5: <https://sophiasearthwatchexpedition.wordpress.com>)

I found the exercise to be incredibly inspiring -- all the volunteers got to appreciate for ourselves all of the beautiful diversity that abounds along the coastline of Acadia, and we also had the opportunity to learn about how human activities have affected this biodiversity over the years.

All of the included resources, along with 2 additional resources I found, have convinced me of the essential importance of biodiversity. I found it particularly shocking to learn that a loss of biodiversity poses perhaps an even greater threat than climate change. This challenge has definitely inspired me to continue to spread the word about the importance of biodiversity and to take action to protect the biodiversity in my own community.

New Resources:

1. <https://www.nationalgeographic.org/projects/bioblitz/>
2. <https://www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/angered-species-act.html>