

Prompt: Describe a topic, idea, or concept you find so engaging that it makes you lose track of time. Why does it captivate you? What or who do you turn to when you want to learn more? (Common Application; 250-650 words)

Word Count: 649

Essay: A tomb and a birthplace, a barrier and a living home, mangroves serve diverse and unexpected purposes, making them much more than the only trees that grow in saltwater.

Like many people, I first experienced the mangroves from the surface by trail, boat, kayak, or paddleboard: peculiar plants with strange roots climbing out of the saltwater. Not until I swam underneath did I learn to genuinely appreciate these ancient organisms and desire to protect them.

When I was little my parents would wake me at dawn to kayak through the mangroves and experience the oranges, blues, and pinks the sunrise painted. When I got older I woke myself, restless to see dolphins, nurse sharks, and manatees in the morning's perfect light. One day I looked through the clear waters and noticed an abundance of fish. It was summer, and I felt adventurous.

The next morning, I grabbed my snorkel mask, and paddled out with a mission to venture underneath the mangroves, ignoring my fear of crocodiles and stingrays. I tied a rope from the paddleboard to my ankle, checked the water below, and plunged into a state of awe. Time stopped and my mind cleared. Schools of snapper, angel fish, parrot fish, snook, and barracuda swam together through a labyrinth of root systems. I never knew that most mangrove roots floated above the muck, creating sheltering caverns for hundreds of fish. A variety of purple and orange corals clung to these roots like air plants, and nurse sharks rested in their crevices. The sun's surreal light seeping through the mangrove branches moved me to memorize every scale, pattern, fish, coral, and root. I knew my return to the distractions and bustle of everyday life would divide me from the quieting peace that nature like this brings.

At home, I drew every fish, coral, root, and animal I had seen. I researched the Cassiopeia upside down jellyfish lining the mangrove bottom, and learned that the algae growing on them takes in carbon dioxide, and outputs dissolved oxygen, creating healthier water; that nurse sharks have a muscle in their gills that acts as a water pump, making them the only shark that doesn't have to constantly stay in motion; the symbiosis between the barracuda and cleaner wrasse fish; how the soft bottom is so functionally and compositionally different from regular sand; and that there are many

secrets to the abundance of life here. For life to thrive it must eventually drift back to the mangroves, decompose, and give back to the place from where it came. A nursery and a cemetery. Dead fish, fallen roots with algae growing from every piece of bark, and layers of silky muck that everything grows from. Surrounded by vibrant schools of fish, birds, predators, fish eggs. Life next to death at every corner.

But the mangroves are not untouchable. In the roots I find pieces of plastic, soda and beer cans, toilets, and even a large jet ski battery which can leak harmful chemicals that trickle up the food chain to be eaten by predators like us. I've witnessed overfishing, reckless boaters and jet skiers, litter, and wildlife endangerment. The Florida Keys continue to attract more people, who build larger homes, recreate in the water, and utilize local resources, adding to the urgency of the mangroves' health.

Like I used to, most people see the mangroves from the surface, and none of the complexities underneath. Mangroves are the only plant that naturally performs desalinization, protects houses against hurricane-force winds, prevents erosion, supports local fisheries, filters water, and even has medicinal properties. I want to keep losing track of time by researching and understanding ecosystems like the mangroves that provide vital scientific resources to endlessly learn from, which is why I want to study environmental science and sustainable development. We must learn to live within and protect these fragile environments to ensure their survival and ours.