

Abstract

Between 2012 and 2017, the health and resilience of the third largest barrier reef in the world, lining Florida's coastline, has deteriorated significantly. The Ocean Health Index (OHI) and the National Oceanic and Atmospheric Association (NOAA) have observed and communicated these trends. The United States OHI value for the previous six years has averaged 68 out of 100, ranking 109 of the 221 countries analyzed. Additionally, NOAA climate data suggests three sub-factors directly relating to oceans (temperature, ocean heat, and sea level) have been steadily rising each of the preceding six years. In order to capture how Florida residents perceive these threats to the reef, I traveled to southeastern Florida to interview community members on their experience with the reefs and what changes they have noticed in recent reef health. I chose to interview individuals with scuba diving backgrounds, as they have direct access to the ocean's environments and are familiar with regular fluctuations in populations, coral cover, and recreational behaviors. Interview results suggest in the context of recreation, while oceanic activities are valuable economically, uninformed participants can exercise behaviors that have a negative impact on marine life. Alternatively, in the context of climate change, interview results suggested that beyond bleaching events, natural disaster intensity has a detrimental effect on corals even if it stirs up lower temperatures in the water. To combat these challenges, stewards of Florida's reefs suggest to further educate the community and visitors on reef impacts of recreational activities and to participate in restoration efforts following a storm or bleaching event. To actively participate in this conversation, I invested in one of the efforts, community and visitor education, by developing a website where the results of my preliminary research and interviews surrounding Florida's reef health are outlined in a user-friendly interface.

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