

## THE IMPACT OF CLIMATE CHANGE ON ABALONE: WHAT CAN WE DO?

Session: A, Breakout Room #14

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Abalone are integral to the biodiversity of their ecosystems and to the culture and fishing industry of California however, climate change threatens the already dwindling abalone populations that were severely reduced in the 1900s. To better understand the role that climate change played and how to best conserve abalone species, I gathered data through interviews and literature reviews. My internship at NOAA Fisheries also focused on assessing the change in status of pink and green abalone in Southern California, USA and Baja California, Mexico. This involved compiling and comparing qualitative survey response data and abalone size frequency data. I found that rising temperatures threatened the reproductive health and immune response of abalone and contributed to the loss of kelp forests and habitat. This subsequent loss of food quantity poses a major risk to both green and red abalone however, red abalone are much more vulnerable than green abalone to rising temperatures. Ocean acidification and the increasing frequency and duration of hypoxia events can also harm abalone however, it is difficult to track the extent to which climate change factors impact the status of Californian abalone. Identifying the root of the problem enables us to take preventive and corrective measures in the form of education, climate change action and preserving abalone populations.