Declan Butler

Skrobacki

December 3, 2019

UNIV 150

Melting Ice

Since day zero of planet Earth, climate change has been an ever occurring issue, affecting every living organism. In *fingerprints of global warming on wild animals and plants,* researchers meta-analysis of 143 studies and found, global warming, specifically rising temperatures, were taking tolls on plant and animal traits. The researchers focused on plant and animal species that lived in higher altitudes since lower altitudes are more protected from temperature fluctuations (Root Et Al. 2002). Dramatic temperature fluctuations drove a change in many factors: the ratio of evolving species, the rate of seasonal change, and the overall rate of future climate change.

The rate of evolving species in the higher altitudes has been increasing over the past one-hundred years. Through measuring the density, phenology, morphology, and genetic mutations of plant and animal species and comparing each year's results; The change of plant and animal species in the coming years is expected to expand approximately 81 percent to 90 percent with about 79 percent to 80 percent confidence level (Root Et Al. 2002). Those percentages prove that the increasing temperatures play an immense role in stress plant and animal species have to go through to survive. Through those growing numbers, some species would not be able to evolve quickly enough and be the cause of their extinction.

Every year plant and animal species go through seasonal changes to survive the differing conditions. Over the past fifty years, some species have been recorded to go through their seasonal changes earlier than prior decades. For example, a species of penguin began going through their seasonal changes nearly a whole month before the previous decade (Root Et Al. 2002). The changing environment caused the penguin to adapt to the new climate much more quickly, and those that could not adjust heartbreakingly died. If the seasons were to change at a constant rate compared to the ever-increasing trend, then all species would be able to adapt to the conditions over generations. To allow plant and animal species time to acclimate to rising temperatures, the communities prevail stable.

The rapid increase in changing environments is an immense concern for plant and animal species. In current ecosystems, every plant and animal relies on one another for fundamental necessities, such as food and shelter. The balance of an ecosystem would be shattered if a community of plant and animal species was to lose just one species (Root Et Al. 2002). The necessity to keep all plant and animal species alive and well is required if the human population wants to keep the Earth the way it is.

The change in the ratio of evolving species, the rate of seasonal change, and the overall rate of future climate change is primarily due to the increase in temperature. Designating more money into research to figure out how to slow global warming would allow evolution to occur; thus, keeping the communities in a harmonious balance between plant and animal species. With plant and animal species coexisting, planet Earth will always be a place the human population luckily gets to call home.

Works Cited

Root, T., Price, J., Hall, K. *et al.* Fingerprints of global warming on wild animals and plants.

*Nature* 421, 57–60 (2003) doi:10.1038/nature01333