

# Adapting Ecosystems: Assessing Climate Change's Influence on Biodiversity Dynamics

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**Abstract:** *The impact of climate change on biodiversity is a complex and multifaceted issue. As global temperatures rise and weather patterns become more erratic, ecosystems and the species that inhabit them face numerous challenges. This abstract summarizes key aspects of this impact. Climate change disrupts natural habitats, leading to species loss, affects the timing of critical events like migration and breeding, and alters food availability, all of which threaten various forms of life. Furthermore, ocean acidification and sea-level rise harm marine biodiversity and coastal ecosystems. In this context, understanding and addressing the consequences of climate change on biodiversity are crucial for preserving the delicate balance of ecosystems and preventing the decline of many species.*

**Keywords:** Climate, change, Biodiversity, Habitat, loss, Species, distribution, Extinction, risk