

# Climate change and its effect on animals in the chesapeake bay

[Linguistics](#), [English](#)



Topic: Presentation: Introduction Human activities have contributed significantly to the phenomenon of climate change. Large amounts of carbon released to the atmosphere from industries and heavy machinery as well as depletion of natural resources such as forests through legal and illegal logging, has contributed to global warming as a result of depletion of the protective Ozone layer. This is the layer that protects the earth against the adversity of sun's heat. Following is an assessment of climate change and its effect on animals in the Chesapeake Bay.

### Impact of Climate Change in Chesapeake Bay

Climate change has influenced the ecosystem balance of Chesapeake Bay. Drastic weather patterns have led to rising of sea level causing submergence of wetlands in the estuary. This affects the wetland organisms that are not used to submerged ecosystems. The unpredictable weather patterns are likely to destabilize wetland habitat leading to extinction of some animal species. High variations in salinity as a result of increased rainfall, long periods of draught and unpredictable storm is also a factor that is likely to contribute to degradation of the ecosystem and extinction of animal species (Abel, 26).

Increased precipitation as a result of climate change has led to high sediment deposits in the bay, which bring in high quantities of nitrogen and phosphorous that are the limiting nutrients for the growth of algae and other aquatic organisms. Further more, overland flow from neighboring farms and towns leads to deposition of chemical contaminants in the water that leads to the death of aquatic organisms. High sedimentation has raised the water bed leading increased submergence of the land surrounding the bay (Cerco

et al. 632).

Climate change has also led to temperature fluctuations and increased carbon dioxide in the atmosphere creating conditions that are necessary for the growth of dinoflagellates, which are algae that are harmful to zooplankton and fish. Some of the fish feed directly on the algae while others ingest the harmful algae through feeding on the zooplankton that are higher on the food chain. Moreover, temperature fluctuations increase the possibility of hypoxia. This is a situation whereby dissolved oxygen levels fall below the minimum that is necessary to support animal life. Increased temperatures in the bay have favored warm water species thereby making it hard for the cold water species to survive (Boesch et al. 112).

Increased temperatures in the bay water have led to the decline of eelgrass which is a significant hideout of blue crabs in their post larval and molting stage. This limits their growth and capacity to avoid predators. There are many aquatic animals that feed on eelgrass during winter and hence its absence limits their growth. Reproduction of waterfowls has been affected by the drying up of their breeding grounds on the Prairies Pothole region as a result of climate change. Warming of winter temperatures has also affected the migratory habits of waterfowls; hence they do not complete their migratory route through Chesapeake Bay (Coles, 128).

### Conclusion

Climate change is a phenomenon that needs to be checked due to its impact on animals in Chesapeake. Most of the species may become extinct if the impact of climate change continues to escalate. It has caused unpredictable weather patterns, increased precipitation and high temperatures that have

affected the ecosystem balance. Submergence of the wetland in the estuary as a result of rising sea level has interfered with the wetland habitat that is home for many animal species. Pollution as a result of increased precipitation and overland flow to the bay has led to the deposition of nutrients and toxic substances that have adversely affected aquatic life. Migratory habits of waterfowls have been affected and the number that comes to Chesapeake during winter has decreased.

#### References

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