International Research Journal of Research in Environmental Science and Toxicology Vol. 12(4) pp. 1-3, March, 2023
Available online https://www.interesjournals.org/research-environmental-science-toxicology/archive.html

Expert Review

Weather Extinction: Unraveling the Threat to Wildlife

David Jannice*

Department of Science Laboratory Technology, University of Greece, Greece

*Corresponding Author's E-mail: Dave_J@gmail.com

Received: 03-July-2023, Manuscript No. JREST-23-108766; **Editor assigned:** 05-July-2023, PreQC No. JREST-23-108766 (PQ); **Reviewed:** 19-July-2023, QC No. JREST-23-108766; **Revised:** 24-July-2023, Manuscript No. JREST-23-108766 (R); **Published:** 31-July-2023, DOI: 10.14303/2315-5698.2023.39

Abstract

The Earth's climate is changing at an unprecedented rate, with extreme weather events becoming more frequent and intense. As a result, wildlife is facing a grave threat, with many species on the brink of extinction. Rising temperatures are leading to habitat loss and fragmentation, disrupting ecological balances and pushing vulnerable species towards extinction. Hurricanes, floods, droughts, heat waves, and wildfires are wreaking havoc on terrestrial and marine ecosystems, wiping out entire populations and leaving ecosystems imbalanced. Ocean acidification, a consequence of climate change, poses an additional threat to marine life. Coral reefs, vital marine habitats, are declining due to increasing sea surface temperatures and ocean acidification. To combat weather-induced extinction, comprehensive conservation efforts are needed. Protecting and restoring critical habitats, reducing greenhouse gas emissions, raising public awareness, conducting research, and monitoring wildlife populations are crucial steps in safeguarding biodiversity and ensuring a sustainable future for all species. Immediate global action is imperative to mitigate the devastating impact of extreme weather events on wildlife and to preserve the delicate balance of our planet's ecosystems.

Keywords: Extinction of wildlife, Climate change, Hurricanes, Extreme weather events

INTRODUCTION

The Earth's climate is in a state of flux, with natural variations in weather patterns shaping the planet's ecosystems and fostering an extraordinary diversity of wildlife. However, over the past century, human activities have dramatically altered the global climate, leading to an acceleration of extreme weather events and a rise in global temperatures. This unprecedented change in weather patterns has emerged as a looming threat to the survival of wildlife around the world (Hoenders H, 2018).

The phenomenon of wildlife extinction due to weather-related factors has become an alarming reality, garnering attention from scientists, conservationists, and policymakers alike. Rising temperatures have triggered a cascade of ecological disruptions, impacting ecosystems on land and in the oceans. The loss and fragmentation of critical habitats have left many species struggling to find suitable environments, forcing them to adapt or face extinction (Park C, 2013).

Moreover, extreme weather events, such as hurricanes, floods, droughts, heatwaves, and wildfires, have become more frequent and intense, wreaking havoc on vulnerable wildlife populations. Coastal and marine habitats have been devastated by powerful storms, disrupting breeding grounds for marine species, while inland regions face droughts and floods, altering the availability of water and food sources for terrestrial animals (Duffy J, 2014) (Rahmawati KD, 2017).

In the face of soaring temperatures, prolonged heat waves have emerged as a catastrophic threat to both land-based and marine organisms. Fish die-offs due to increased water temperatures have been observed, while land-dwelling species suffer from dehydration, heat stress, and dwindling food sources. These conditions can result in the rapid decline of populations and, in some cases, lead to the complete extinction of species, tipping ecological balances

and impairing the resilience of ecosystems (Johnston B, 2005).

DISCUSSION

Additionally, climate change has triggered ocean acidification, a phenomenon where the absorption of excess carbon dioxide by the oceans leads to a drop in pH levels. This poses a grave threat to marine life, especially organisms that rely on calcium carbonate to build their shells and skeletons, such as corals and certain plankton species. The decline of coral reefs, often referred to as the rainforests of the sea, impacts numerous marine species that depend on these ecosystems for survival.

In light of these unprecedented challenges, there is an urgent need for comprehensive conservation efforts to protect and preserve wildlife from the onslaught of extreme weather events and climate change. Governments, scientists, communities, and individuals must unite in the pursuit of sustainable practices and climate action. By safeguarding critical habitats, reducing greenhouse gas emissions, raising public awareness, and investing in research and monitoring, we can hope to mitigate the devastating impacts of extreme weather on wildlife and work towards creating a more sustainable and resilient future for all living beings on Earth (Higgs J, 2010) (Robinson A, 2011).

The Earth's climate has always been in a state of flux, with fluctuations in weather patterns playing a significant role in shaping ecosystems and biodiversity. While wildlife has historically adapted to these natural changes, the accelerated pace of climate change in recent times has posed unprecedented challenges. The impact of extreme weather events, such as hurricanes, droughts, floods, heatwaves, and wildfires, has been devastating on both terrestrial and aquatic ecosystems, driving the extinction of many species. This article delves into the alarming phenomenon of wildlife extinction due to weather-related factors and explores the urgent need for comprehensive conservation efforts (Helgason C, 2012).

Rising temperatures and habitats in peril

One of the most significant impacts of climate change is the increase in global temperatures. Rising temperatures have resulted in the loss and fragmentation of critical habitats for many wildlife species. As temperatures climb, plants and animals are forced to move in search of more suitable environments, disrupting ecological balances. The loss of habitats threatens species already at risk and hinders their ability to find adequate food, mates, and shelter, ultimately pushing them towards extinction.

Extreme weather events and catastrophic impacts

Extreme weather events have become more frequent and intense due to climate change, wreaking havoc on wildlife populations. Hurricanes, cyclones, and typhoons can devastate coastal and marine habitats, leading to the destruction of breeding grounds for sea turtles, coral reefs, and mangroves. Similarly, inland regions are impacted by droughts and floods, which alter the availability of water and food sources, putting additional stress on already vulnerable species (Peltzer K, 2018).

Heat waves, which have become more frequent in recent years, can be catastrophic for both terrestrial and marine life. Fish die-offs have been observed due to increased water temperatures, while land-based animals face dehydration, heat stress, and reduced food availability during prolonged heat waves. In some cases, entire populations are wiped out, leaving ecosystems imbalanced and unable to recover (Penwell-Waines L, 2015).

Ocean acidification and marine life decline

Weather-induced climate change also affects the oceans. As carbon dioxide levels rise in the atmosphere, a significant portion is absorbed by the oceans, leading to ocean acidification. This phenomenon poses a grave threat to marine life, particularly organisms that rely on calcium carbonate to build their shells and skeletons, such as corals, mollusks, and certain plankton species.

Furthermore, increasing sea surface temperatures disrupt marine ecosystems, causing coral bleaching events that result in widespread coral mortality. The decline of coral reefs negatively impacts various marine species that rely on these intricate ecosystems for food, shelter, and breeding grounds. The overall loss of biodiversity in marine environments threatens the delicate balance of marine food chains and jeopardizes the livelihoods of millions of people who depend on the ocean for sustenance and income.

Conservation challenges and the way forward

The looming specter of weather-induced extinction underscores the urgency of proactive conservation efforts. Effective wildlife conservation strategies must be holistic, encompassing not only the protection of habitats but also the reduction of greenhouse gas emissions. Policymakers, scientists, and communities must work together to implement sustainable practices that mitigate climate change impacts.

Habitat protection and restoration: Preserving and restoring critical habitats for wildlife is paramount. Protected areas and wildlife reserves help provide safe havens for vulnerable species, allowing them to thrive in a changing climate.

Climate action: Addressing climate change requires collective global action to reduce greenhouse gas emissions. Governments and industries must transition to renewable energy sources and adopt sustainable practices to minimize the impact of weather-related disasters on wildlife.

Public awareness and education: Raising awareness about the threats posed by climate change and extreme weather events is essential in fostering a sense of responsibility among individuals and communities. Education initiatives

can empower people to take action and support conservation efforts.

Research and monitoring: Robust research and monitoring programs are vital for understanding the impacts of climate change on wildlife. This knowledge helps inform conservation strategies and adaptation measures.

CONCLUSION

The extinction of wildlife due to weather-related factors is an urgent and multifaceted challenge. The accelerating pace of climate change and its impact on extreme weather events necessitate immediate action to protect and preserve biodiversity. By implementing comprehensive conservation strategies, reducing greenhouse gas emissions, and raising awareness about climate change, we can hope to mitigate the devastating effects of extreme weather on wildlife and create a more sustainable and resilient future for all species on our planet. The time to act is now, for the sake of both wildlife and humanity.

ACKNOWLEDGMENT

None

CONFLICT OF INTEREST

None

REFERENCES

1. Hoenders H, Evans-Lacko S, Kovess-Masfety V (2018). Complementary and alternative medicine contacts by persons with mental disorders in 25 countries: results from the world mental health surveys. Epidemiol Psychiatr Sci. 27: 552-567.
2. Park C (2013). Mind-body CAM interventions: Current status and considerations for integration into clinical health psychology. J Clin Psychol. 69: 45-63.
3. Duffy J, Lake J (2014). Integrative mental healthcare White paper: establishing a new paradigm through research, education, and clinical guidelines. Adv Int Med. 1: 9-16.
4. Rahmawati KD (2017). The meaning of complementary, alternative and traditional medicine among the Indonesian psychology community: a pilot study. J Int Med. 15: 288-294.
5. Johnston B, Waters K, Boon H (2005). Integrating complementary and alternative medicine into academic medical centers: experience and perceptions of nine leading centers in North America. BMC Health Serv Res. 5: 78-84.
6. Higgs J (2010). Integrative medicine: enhancing quality in primary health care. J Altern Complement Med. 16: 945–950.
7. Robinson A (2011). Integrative medicine models in contemporary primary health care. Complement Ther Med. 19: 84-92.
8. Helgason C, Sarris J (2012). Integrative mental health (IMH): paradigm, research, and clinical practice. The Journal of Science and Healing. 8: 50-57.
9. Peltzer K (2018). Utilization of traditional and complementary medicine in Indonesia: results of a national survey in 2014-15. Complement Ther Clin Pract. 33: 156-163.
10. Penwell-Waines L, Valvano A (2015). Integrated care psychologists and their role in patient transition from medical to psychiatric specialty care settings: a conceptual model. Health Psychol Behav Med. 3: 154-168.