

DECLARATION

I hereby declare that the thesis titled **Living on the Edge: (Re)thinking Extinction in Select 21st Century Climate Change Fictions** has been prepared by me under the supervision of Dr. Pradipta Shyam Chowdhury, Assistant Professor, Department of English, University of North Bengal. No part of the thesis has formed the basis for the award of any degree or fellowship previously. All the primary and secondary sources used in the thesis have adequately been cited and annotated.

I do make the above declaration in good health and spirit, and I am responsible for the declaration made.

Somasree Sarkar

Somasree Sarkar

Department of English

University of North Bengal

Darjeeling- 734013

Date: 20.03.2023

UNIVERSITY OF NORTH BENGAL

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DEPARTMENT OF ENGLISH



সমগ্রো মনঃ সখিতিঃ সঙ্গলী

P.O. NORTH BENGAL UNIVERSITY,
Raja Rammohunpur, Dist. Darjeeling,
West Bengal, India, PIN - 734013
Phone: (0353) 2580 996

Ref. No.....

Date.....

CERTIFICATE

I hereby certify that Somasree Sarkar has prepared the thesis, titled **Living on the Edge: (Re)thinking Extinction in Select 21st Century Climate Change Fictions**, for the award of Ph.D. degree of the University of North Bengal, under my supervision. I also certify that the thesis has not formed the basis for the award of any other degree, diploma, fellowship, or other such title. This thesis represents an independent and original research work on the part of the candidate.

Place: University of North Bengal

Date: 20.03.2023

Dr. Pradipta Shyam Chowdhury

Assistant Prof.
Department of English
North Bengal University

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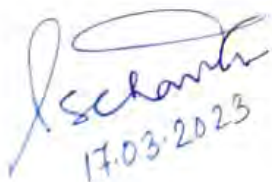
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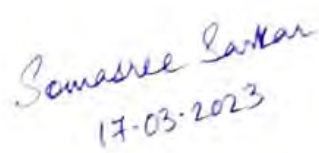
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Living on the Edge: (Re)thinking Extinction in Select 21st Century Climate Change Fictions A Thesis Submitted to the University of North Bengal for the Award of Doctor of Philosophy in English by Somasree Sarkar Supervisor: Dr. Pradipta Shyam Chowdhury Assistant Professor Department of English University of North Bengal Department of English University of North Bengal March, 2023

Sarkar 1 Chapter I Introduction: Anthropocene Thinking and Surviving Extinction 1.1 Extinction: A Background Research shows that the Earth's biodiversity is shrinking significantly, and consequently, a possible mass extinction threatens our planet currently. A considerable number of species are losing their habitat and are said to move towards extinction. The word "extinction" instantly puts forth images of imminent catastrophe and the annihilation of species on a large scale. However, the extinction of species is not a phenomenon of recent times; instead, it was first discovered in the eighteenth century "to account for the discovery of fossils that had no living correlates" (Grusin VIII). Extinction is now viewed as a natural cycle of creation and annihilation, thanks to the discovery of fossils of extinct creatures and Darwin's theory of natural selection. The processes of speciation and extinction are correlated, as scientists claim that about 99 percent of species that evolved over billions of years are already extinct, making way for the evolution of many more. Biologists say that extinction occurs rarely, more rarely than speciation, and it takes place at a "background extinction rate" (Kolbert 15). The calculation of the "background extinction rate" roughly states that one species disappears "every seven hundred years" (Kolbert 15). Mass extinction occurs when the rate of extinction is greater than the rate of speciation, causing a crash and a drastic decline in species and leading to a massive loss of biodiversity. Scientists concede to the fact that the planet is in the midst of the sixth mass extinction after experiencing five mass extinctions that have marked the end of geological epochs. The latest event of mass extinction happened 65 million years ago, marking the end of the Cretaceous-Jurassic age and claiming the lives of all the dinosaurs. It is assumed


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PREFACE

I was writing my M.Phil. dissertation on multispecies interrelationship, when the terms “Anthropocene,” “Anthropocentric,” and “Anthropocentrism” were first introduced to me. Eventually, I wrote a dissertation contesting the idea of anthropocentrism. This inspired me to consider other species in parallel to *Homo sapiens* and to develop a concept I called “Postplantism,” which is akin to the idea of “Posthumanism.” Later, as I read more about the topic, I came across innumerable predictions about the future of humanity. The relevance of the discussions about the future of human species stems from the idea of the “Anthropocene,” which is the new geological epoch of human dominance. Scientists Paul J. Crutzen and Eugene F. Stoermer in 2000 named the current geological epoch as “Anthropocene” to affirm that human beings are the major geophysical factors affecting the stratigraphy of the Earth.

For the first time in Earth’s history, a living being is said to have huge impact on the stratigraphy, which is a revelation for humanity. The word “Anthropocene” is used to assess *Homo sapiens*, the most significant species in Earth’s history, in interdisciplinary academic discourses right away. The influence of the human species is so great that it is relentlessly altering the geophysical features of the Earth, ultimately harming the Earth system. According to the 1992 Rio Earth Summit, climate change is recognised mainly as anthropogenic, which has an impact on the planetary system. Since then, the concern over climate change has consistently referred to human activities as the root causes of ecological degradation. Such cries are amplified by worries about the future of humans who are changing the Earth in unprecedented ways, making their own species and other species vulnerable. Concern for humanity’s future is also linked to our society’s sustainable growth in order to give our future generations access to resources. Youth insurgency in the form of Climate Strike in 2019 was

sparked by the realisation that the current generation is leaving a damaged planet for future generations.

When Greta Thunberg, a 16-year-old Swedish girl who spoke at the United Nations Climate Action Summit in 2019, captured the attention of the world, I was already engaged in my reading on the Anthropocene and climate change. Here is a quote from the section of the address that caught my attention:

You have stolen my dreams and my childhood with your empty words. And yet I'm one of the lucky ones. People are suffering. People are dying. Entire ecosystems are collapsing. We are in the beginning of a mass extinction, and all you can talk about is money and fairy tales of eternal economic growth. How dare you!

The teenager's haplessness is palpable, and she is furious that world leaders are ignoring the climate catastrophe and terrified of the impending extinction, which will likely pose a threat to future generations' survival. Thunberg is angered that the current generation is leaving a ruined planet for the next generation, who would pay for the mistakes of the adults prior to them. I somewhat comprehend Thunberg's emotional outburst in front of the world leaders at the summit because she is so desperate to survive the climate catastrophe. She calls into question their fantasy of economic growth and implores them to take prompt action to stop climate change and avert the eventual mass extinction.

The idea of a mass extinction is concerning because, according to scientists, the Earth is currently going through its sixth mass extinction after enduring five such occurrences. It is believed that a dramatic decline in human species will result from the radical decline in biodiversity and the ensuing disruption in the eco-balance. Humans are uneasy about such

predictions because they continually worry about their extinction and are aware of the slim chances of their surviving. My readings on and around the subject of climate change have inevitably brought me to predictions about a wounded and damaged Earth that is in danger of going extinct. Images of melting polar ice caps, rising sea levels, inundated coastal cities, destroyed island ecologies, cleared rain forests, sudden droughts, flash floods, hurricanes, and other disasters all suggest the impending mass extinction. Climate conjectures are accompanied by warnings to humankind that if they continue to behave irresponsibly, they must bear the expenses of their own actions. The climate stories infuse radical scenarios of climate crisis, while trying to procrastinate about the future of the living planet. Most of the theories tend to have an undercurrent of inevitability because it is thought that humanity is about to come to an end. As a result, too many speculations are made on climate change and extinction, and on the probable forms the Earth may morph into. Conjectures on the complex topic of climate change and mass extinction have been further stimulated by predictions about the timescales in which a climate catastrophe may occur. Additionally, several climate change fictions have created fantastical pictures to convey the paranoia and anxiety that have lately accompanied the climate crisis. A climate of fear regarding an incomprehensible timescale has been created as a result of the abundance of books, newspaper articles, social media posts, and films on climate change that hint at a catastrophic moment in the future.

This makes me wonder “why are there so many overt assumptions made about extinction and climate change”; “why is there so much speculation about extinction?”; “why is there so much fear and anxiety about extinction when it is already known to be a natural process?”; “why do we think so much about a non-existent and undefined tomorrow?” All these questions linger in my thoughts. I assume, based on the interrogations, that the answers to these

issues may lie in the innate human desire to survive. Greta Thunberg passionately expresses her desire for survival at the Climate Action Summit, and this urge for survival perhaps motivates humans' speculations on an indefinite future. Humanity is alarmed by the feeling of finality associated with extinction, and their worries about an inhabitable Earth feed into these fears. However, such fear of the potential end prompts humans to devise strategies for surviving the severe climatic conditions. There remains a paucity in understanding extinction beyond its meaning as an eventful end and as a radical, catastrophic, and depressing event. So, I will contend that extinction can be seen as a dynamic idea that is forever evolving, resisting its negative connotation of finality. Therefore, this thesis is my humble attempt to analyse the concept of extinction as one that carries the seeds of survival along with it, beyond its distressing and depressing implications.

Somasree Sarkar

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Last, but hardly the least, I dedicate the thesis to my parents, whom I owe everything. This is too short a space to acknowledge their contributions in my life. All I can say, what I am today, I am because of my Maa and Baba.