



Northbrae
Books

941 The Alameda, Suite 6
Berkeley, CA 94707
t (510) 524-2709
info@northbrae-publishers.com

TABLE OF CONTENTS

Foreword Benjamin D. Santer	xiii
Preface John J. Berger	xv
Introduction Paul R. Ehrlich and Anne H. Ehrlich	xxi
Chapter 1. Global Climate, 2100 AD	1
<i>Our new hotter climate will manifest in dangerous and ominous ways from North America to Africa, Asia, and Oceania.</i>	
Chapter 2. Current Climate Impacts	23
<i>Far-ranging, irrefutable evidence of several major climate changes that are already profoundly affecting the Earth, its ecosystems, and ourselves.</i>	
Chapter 3. Natural Climate Change	37
<i>Normal climate and what happens to it when heat-trapping gases from human activities disturb it.</i>	
Chapter 4. Unnatural Climate Change	51
<i>Humans have now taken control of the climate.</i>	
Chapter 5. The United States in Peril	71
<i>Multitrillion-dollar losses to the US economy are on the horizon as rising seas lap at major coastal cities and droughts, floods, fires, heat waves, and crop failures strike home.</i>	
Chapter 6. “Tipping Point” Perils	89
<i>We are raising the risk of rapid, uncontrollable climate change.</i>	
Chapter 7. Economic Perils	119
<i>Abrupt climate change’s unacceptable costs, and the benefits that a global climate rescue plan would have.</i>	
Chapter 8. Health Perils	151
<i>Millions of people have already suffered and died unnecessarily from the early effects of climate change, including malnutrition, starvation, heat waves, and other extreme weather events. The climate casualties will soar as the mercury rises.</i>	

Chapter 9. Extreme Weather Perils	165
<i>As the world has heated up and the climate has become more abnormal, heat waves, droughts, fires, hurricanes, cyclones, and floods have all become more frequent, severe, and costly. Expect more of the same, only worse.</i>	
Chapter 10. Extinction Perils	183
<i>Heating the world by just a few degrees will cause a planetary extinction spasm on a par with the largest five extinctions recorded on Earth in the past 500 million years. This will create more hunger and poverty emergencies than the world is prepared to handle.</i>	
Chapter 11. Oceanic Perils	207
<i>Troubling and dramatic changes are quietly occurring in ocean chemistry, surface ice, sea level, sea ice, oxygenation, and in the abundance of tiny floating plants at the base of the marine food chain that produce 40 percent of the world's oxygen. If we ignore this, we will regret it.</i>	
Conclusions	223
<i>A climate emergency has begun and a massive global response is necessary to save human civilization as we know it.</i>	
Appendixes	235
Appendix to Chapter 1: <i>Ecological Effects of Ice Loss and Temperature Increases on the Arctic</i> , 237	
Appendixes to Chapter 4:	
<i>A—The Role of Water Vapor and Other Noncarbon Heat-trapping Gases in Climate Change</i> , 239	
<i>B—Restoring the Atmosphere</i> , 241	
<i>C—A Brief Note on the Displacement of Ecosystems</i> , 243	
Appendix to Chapter 8: <i>Economic Optimism</i> , 244	
Appendix to Chapter 10: <i>Extinctions</i> , 247	
Appendix to Chapter 11: <i>Oceanic Carbon Storage and Other Processes</i> , 252	
Endnotes	267
Glossary	297
Resources for further climate information	308
Acknowledgments	315
About the author and contributors	317
Index	320