Preface

This book has been updated over 15 years in order to keep up with the rapid changes of the twenty-first century, and it will continue to be updated through an associated website, which also contains appendices to chapters, and worked examples. The coronavirus pandemic, the Black Lives Matter movement, exceptional fires and heatwaves exmplify the changes and the challenges of our times. A book on the science behind the biodiversity crisis has much to say about the pandemic and climate change. The SARS CoV-2 virus crossed into humans most likely from the hunting of bats for food. So, we might ask, what would happen if there were no bats in the world? The science is clear. Every time a species is lost, others become more common, making new disease transmission and virulence even more likely. We can see this in the rapid spread of coronavirus through the dense human population. We can also observe more directly effects of bat loss in North America, where white nose disease inadvertently introduced from Europe in 2006 has killed millions of bats, which in turn has been linked to increased insecticide use by farmers attempting to combat the insect pests the bats would otherwise have eaten. This book moves beyond specific examples and beyond disease. We want to quantify biodiversity loss and the consequences for human well-being as we go forward.

What about Black Lives Matter? As sports writer Barney Ronay put it: "so much unhappiness is created, so much talent is lost, so many people who should be doing things and have opportunities to do those things, don't receive those opportunities." (Complete citations are in the references section at the end of the book.) What can we say about connections between these injustices and conservation? Asymmetries and inequalities lie beyond race. They include gender, sexual orientation, disability, caste, religion, nationality, and wealth. Such inequalities are not only morally indefensible, but contribute to the crisis of nature. As a middle-class white male, my concern with the natural world comes from privilege and past experience. Others have not had this same fortune, and one feels that nothing but good could come out of more such opportunity.

In this book I focus on one important inequality: that of wealth. Aside from the other benefits of having money, many are not able to buy enough food, despite there being more than enough food now produced to feed everyone. Like other forms of inequality, poverty is not something I have personally had to deal with, but it is something I have witnessed firsthand, working in India. Wealth disparities impact conservation greatly, from the direct effects of being poor

(e.g., it leads people to hunt bats) to the more general lack of opportunity that is associated with all types of discrimination. Within countries, wealth inequality continues to increase, but the economic growth of Asian and South American countries has meant that across the world inequality has been decreasing, at least until the recent economic downturn. On average, people have been becoming richer and healthier, and we hope this trend will pick up again soon. Such welcome changes have huge implications for the conservation of biodiversity. These changes are covered in the book, and many of the consequences surely apply more generally to the mitigation of all social injustices.