Introduction

The natural world seems to be deteriorating around us largely as a result of our actions. Urban sprawl spreading along the highways of Texas (and elsewhere throughout the North; that is, the “developed” world) has made it harder and harder for us to get to a spot where we can enjoy nature not dominated by human artefacts. Increasing numbers of people driving along these highways are polluting the atmosphere, besides accelerating climate change. Texas is slowly but surely running dry, with less and less water reaching the ocean along its rivers: the current water use patterns cannot be sustained for more than a generation. In central Texas, two bird species, the Golden-cheeked Warbler (Dendroica chrysoparia) and the Black-capped Vireo (Vireo atricapilla), are legally designated as endangered (as defined by the United States Endangered Species Act (ESA)) because of loss of their breeding habitat to residential, industrial, and commercial development. A rapidly spreading invasive species, the imported red fire ant (Solenopsis invicta), which thrives on fragmented habitats (a result of human land use choices), is threatening many native species with extinction. For the same reason, Ashe juniper (Juniperus ashei) is aggressively spreading over the landscape, replacing much of the original plant communities. Tallgrass prairie, which originally covered a large part of the region, has almost entirely disappeared, typically replaced by monocultures of planted crops. In southeastern Texas, it has cost millions of dollars to rescue the Whooping Crane (Grus americana), the population of which had declined to perhaps 15
individuals in the late 1930s. In Texas, as elsewhere, cattle, poultry, and other animals are being bred to be killed and consumed, sometimes in appalling conditions in order to keep prices low. These are genuine environmental problems.

There are other problems that may or may not be about the environment (part of the project of environmental philosophy is to help determine whether these problems are environmental problems). Since the 1990s, the Sierra Club in the United States has periodically been torn apart by a minority of members trying to get it to adopt an official stance against immigration into the United States. According to this minority, these immigrants would increase the population of the United States and exacerbate already critical environmental problems. Moreover, they claim, immigrants from poorer countries such as México would adopt over-consumptive Northern lifestyles and would thus consume much more of Earth’s resources than they would if they remained mired in poverty at home. Whether members of this minority are genuinely motivated by concern for the environment, or whether they are simply paranoid nativists and racists hiding behind the banner of environmentalism, remains a hotly contested issue. There is much to argue over, for instance, whether immigrants from countries such as México would really end up having over-consumptive lifestyles (like those of many white US self-described environmentalists with their oil-guzzling sports utility vehicles) and whether, even if the immigrants were to opt for over-consumption, their descendants, because of cultural changes in their new home, would have sufficiently lower birth rates to vitiate any possible effect of over-consumption. However, there is little reason to doubt that over-consumption of resources is a problem and that it depends both on lifestyle choices and population sizes.

What Is Environmental Philosophy?

Few would deny that environmental problems must be faced, and that solving these problems is essential for humanity to continue to flourish on Earth. But what has philosophy got to do with this? The
answer is: a lot, and much more than you would initially expect. How do we distinguish between a genuine environmental problem and one that is not? It depends on how we define what the environment is and that, as we shall see, is a non-trivial philosophical problem (Chapter 2). Defining many other concepts used to discuss environmental issues is equally problematic: these include biodiversity (Chapter 5), ecological integrity (Chapter 6), and sustainability (Chapter 7). Conceptual analysis, as practiced within philosophy, is critical to their clarification. Without clarity and precision we may well make unwise decisions. For instance, if we define biodiversity incorrectly, we may end up wasting resources on biota that do not merit attention while ignoring those that do.

Moreover, should we be concerned only with the flourishing of humanity in the future? Or should we include other species? Ecosystems? What about mountains and rivers? When we choose what to eat or wear, should we worry about the harm to other species? Does it matter whether individuals of those species that we consume have the capacity to feel pain? How do we even know when an animal feels pain? Do we have responsibilities to future generations that will be affected by climate change? Within academic philosophy, environmental ethics has traditionally debated these issues (Chapter 3). The relevant questions are not purely academic. They affect how we frame policy—from what parts of nature we conserve to how we experiment with animals.

Who should be held to blame for our environmental problems? Only the proximate “offenders”; for instance, poor pastoralists in east Africa “encroaching” on a national park to gather fodder? Or should we follow the chain of explanation much further, wondering how such poverty came to be institutionalized in the first place? Is colonialism to blame? Are Northern descendants of colonialists responsible? Environmental philosophy also embraces questions such as these, which lie at the foundation of what is now often called “political ecology” (Chapter 8). Social and political philosophy have much to contribute to these issues.

Scientific questions about the environment are mostly studied within the field of ecology. How are the results of this science to be
What’s Special about Environmental Philosophy?

First, environmental ethics attempts to enlarge the domain of traditional (that is, human) ethics by extending our moral concern to non-human entities, to individual animals and plants, to entire non-human species, and sometimes even to inanimate objects. We will examine these issues in Chapter 3. Second, as noted earlier, worrying about the effects of the uncertainty of ecological predictions is part of epistemology and the philosophy of science. But the extent of the uncertainty takes us into new conceptual territory,
especially when it must be addressed in practical decision contexts. We discuss decision theory and other philosophical issues at the foundations of the environmental sciences in Chapter 4. Third, environmental philosophy embraces interdisciplinarity to an extent that is not matched by any other part of philosophy, not even by the philosophy of science (which is necessarily interdisciplinatory because of its contact with the sciences). The environmental sciences, as we shall see in several chapters of this book (especially Chapter 5, Chapter 6, and Chapter 7), are highly interdisciplinary. Environmental philosophy must not only accommodate all this interdisciplinarity but also add to them normative concerns from epistemology, ethics, and aesthetics.

The academic environmental disciplines, such as conservation biology and restoration ecology, are explicitly goal-oriented. For instance, the aim of conservation biology is to maintain biodiversity, the aims of restoration ecology are to achieve historical fidelity and ecological integrity, and a variety of resource management sciences aim to ensure sustainability. As we shall see in Chapter 5, Chapter 6, and Chapter 7, each of these goals—diversity, fidelity, integrity, and sustainability—is imbued with cultural norms. Now discussion of norms—indeed, of normativity in general—is inherently philosophical in the sense that philosophical arguments play the role of adjudicating between the values expressed by the norms. They help identify which values and norms we should embrace and to what extent. The task is not simple: goals may be incompatible. For instance, biodiversity and historical fidelity may be incompatible if a rare and vulnerable species has recently moved into a new habitat. In cases such as these, environmental philosophy is special because what is decided within it is so intimately related to the pursuit of the environmental sciences. Moreover, these sciences are equally intimately connected to practical policy. Environmental philosophy may make a difference to what happens in practice.

Finally, environmental problems raise important issues of equity and justice. Those who benefit most from the unbridled consumption of fossil fuels largely live in the North or in the affluent sections of the South (the poorer countries). (For brevity of exposition, “the North”
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will from now on be used in this book to include the affluent of the South.) Northern consumption of fossil fuels is a major cause of global climate change. Yet the brunt of the negative effects of climate change will be borne by the South. What does justice demand in this context? Does it require a massive transfer of resources from the North to the South? Moreover, denizens of the South may not share the values of the North; for instance, the protection of charismatic species, especially if such protection must come with the loss or diminution of already precarious livelihoods. Which values are more important? These are also issues in environmental philosophy, as will be discussed in Chapter 8, though they are equally issues in social and political philosophy without any specific concern for the environment.

Why Is Environmental Philosophy Important?

Philosophy has two important functions in almost all applied contexts:

(1) It helps clarify what we do: what we perceive as problems, what we set as goals, how we set those goals, and how and why we choose strategies to achieve those goals. For instance, when we argue that a habitat patch should be set aside for nature, are we doing so because of a concern for the species on it, independent of perceived human interests, or because it provides beautiful scenery that we appreciate? When we think about its protection, do we mean we want no human access, less human access, or even restoration of nature at that place? Suppose our focus is on the biota. Does protection mean we want the species to persist or do we care about the welfare of each individual? And why? When we think of strategy, do we want higher ticket prices, community ownership, state intervention, or some combination of all of these? And why?

(2) Philosophy helps put things in context. Environmental problems may be connected to socio-political problems. For in-
stance, deforestation may be a result of poverty. Moreover, many of the values we cherish (in nature as well as elsewhere) may be in conflict. (Box 1.1 discusses the wildlife conservation policies that were adopted in east Africa in the late 1980s, and what philosophy could have contributed to the process.)

Box 1.1 Preserving Wildlife: Wildlife Wars in East Africa in the 1980s

The 1980s saw serious declines in east Africa’s elephant populations even as black rhinoceros populations were on the brink of extinction. Concern for the survival of these species—and about other wildlife declines—prompted several international non-governmental organizations (NGOs) to make African wildlife conservation a major priority. Several African governments responded to this pressure by militarizing the enforcement of wildlife laws, in particular access to national parks. Northern NGOs and the media viewed these developments as a “war” for wildlife. In 1985 Zimbabwe began the paramilitary “Operation Stronghold” commanded by former Rhodesian Defense Force officers with a mandate to track down and kill black “poachers.” In 1988 Kenyan President Daniel Arap Moi issued a shoot-on-sight order to thousands of police sent into those national parks that were believed to be suffering the highest elephant losses. These losses were supposed to be due to the activities of foreign “poachers” from Somalia. In 1989, Tanzania launched “Operation Uhai” to remove “poachers,” using a military strike force (of army, police, and Wildlife Division personnel). Military equipment flowing into the region included automatic assault rifles, helicopters, and remote-controlled surveillance aircraft. Virtually all funding came from the North. The British Parliament debated sending British troops to Kenya, Mozambique, and Tanzania to help protect elephants. Millions of dollars came from the United States.
While the official policy of the World Wildlife Fund (WWF) at this time was not to provide funds for guns or ammunition, in practice it disbursed such funds in Tanzania in 1987 and funded the purchase of helicopters in Zimbabwe.

Shoot-on-sight orders to kill “poachers” and “bandits” were issued in the Central African Republic, Kenya, Malawi, Tanzania, and Zimbabwe. In the Central American Republic, Bruce Hayes, a co-founder of Earth First! in the United States, hired mercenaries to shoot at “poachers,” again supposedly from Somalia. These mercenaries were also given shoot-on-sight authority. Almost all these African countries declared a “war” on “poachers.” More than a hundred people were killed in each of Kenya and Zimbabwe. More than three hundred were killed in Malawi and an even larger number disappeared. Park rangers in Malawi were routinely accused of systematic rape. Between 20 and 50 people were killed in Tanzania, and between 20 and 96 in Botswana. Not one of those who were killed received a trial. Human rights activists have pointed out that many victims were reported by credible witnesses to have been unarmed and that many were local residents, some of whom had been evicted to create the national parks.

What would philosophy have contributed to this situation? The issue that immediately sticks out is whether there is any moral justification in killing humans to protect animals. But there is a deeper worry: should wildlife conservation ever be conceptualized as a “war”? As Roderick Neumann puts it: “how is the protection of biodiversity by means of militarized defense of wild animals made the moral equivalent of war? Stated differently, how can what are essentially battle orders—blanket shoot-to-kill/shoot-on-sight orders—be morally justified for the case of people found illegally inside protected areas?” Should concern for the environment ever lead to an endorsement of violence? Could this so-called war only have been declared because the enemy targeted to be shot at were black Africans? (Imagine declaring a war with a
Philosophy is also important because it encourages questioning of things that are often not questioned: philosophers are often (perhaps justly) parodied for their apparently irritating habit of making obvious claims seem problematic. Many environmental problems are presented by both self-proclaimed environmentalists and the media in such a way as to generate alarm—a type of inchoate apprehension that does not encourage careful deliberation when attitudes are formed and policies are framed (for an example, see Box 1.2). Philosophy attempts to reverse this practice by treating all such claims with caution and skepticism before accepting them. For instance, the philosopher Elliott Sober once questioned, to the horror of many shoot-to-kill policy against the white ranchers who protested conservation measures for the endangered Golden-cheeked Warbler, sometimes violently, in central Texas in the 1990s. 5

Is it that we are back to the colonial era, when black Africans were treated by the North as if they had a moral status no better than that of animals?

It does not even require a professional philosopher to note moral problems with extra-judicial killings without any trial—let alone a fair one. Given the evidence, it similarly takes little effort to be skeptical about whether those labeled as “poachers” were accurately so labeled. (The absence of fair trials for those killed prevents any confidence on this point.) Probing more deeply, there is room to worry that individuals and organizations from the North were imposing their values (wildlife preservation) on people from the South who may not share those values or may have different views about how wildlife should be preserved. In the 1980s, especially among Northern governments, transnational bodies, and NGOs, decisions about protecting nature were being made with no respect for any canon of distributive justice: there was no concern for the negative impact that national parks and wildlife conservation had on local livelihoods.
environmentalists, whether an individual with a starving family has any ethical responsibility not to hunt the last members of a critically endangered animal species. The question was worth asking. Environmental philosophers continue to disagree about the answer.

**Box 1.2  The Global 2000 Report to the President (of the United States)**

In 1980 the Council on Environmental Quality and the United States Department of State produced a report for President Jimmy Carter that was supposed to provide a basis for long-term planning. It appears to be a meticulous piece of scholarship based on endless graphs and computer simulations of future scenarios performed by more than 100 experts around the world over a period of three years. Its coverage was encyclopedic, including issues related to population, economic development, income, food, land, water, soil, forests, minerals, air and water pollution, species extinction, and energy.

In retrospect what is perhaps most striking is what the report had to say about species extinctions. It suggested that “between half a million and 2 million species—15 to 20 percent of all species on earth—could be extinguished by 2000, mainly because of the loss of wild habitat but also in part because of pollution.” This estimate was produced by Thomas Lovejoy of the WWF. The estimation process used projections of deforestation made by project experts. A variety of curves were drawn to represent the possible relationship between deforestation and extinction. These curves were not supposed to represent different scenarios; rather they were supposed to reflect the uncertainty about this relationship. Ultimately, the numbers reported came from assuming a linear relationship and by setting the expected species loss, if all forests were destroyed, at 95 percent.
It is not at all being suggested that the issues discussed above cannot be handled outside environmental philosophy. Given how little philosophical attention has been given to the environment (and the extent to which that attention has been narrowly restricted to environmental ethics), many of these questions have typically been most carefully explored in other contexts. What environmental philosophy does is to provide a forum for the systematic exploration of these questions, including their complicated relationships with each other.

Notes

2. Clarke (2001) reviews the dispute; see also Sarkar (2005), Chapter 1.
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3. This case study is from Neumann (2004); see Dowie (2009) for many other such examples.
8. See Meadows et al. (1972).
9. See Sober (1986), who distinguishes between environmental aesthetics and environmental ethics to explain the divergence of positions.