Introduction

The way to hunt is for as long as you live against as long as there is such and such an animal.

—Ernest Hemingway, Green Hills of Africa

THIS IS a short book with a straightforward premise. I argue that the major animal-protection treaties of the early twentieth century are best understood as international hunting treaties rather than as conservation treaties. By and large, prominent hunters and ex-hunters (“penitent butchers,” in the words of their critics) were the guiding force behind the treaties, and these hunters were often far more concerned with the protection of specific hunting grounds and prized prey than with the safeguarding of entire habitats, ecosystems, or bioregions. Over time, wildlife managers and conservationists tried to tweak these treaties into full-fledged animal-protection agreements. They discovered, however, that the hunting ethos embedded in the treaty texts hampered their efforts, and after 1946, they began to push for new approaches based on new premises. The strengths and weaknesses of these early treaties and the impact they had (often inadvertently) on subsequent animal-protection accords comprise the main subject matter of this book.

Wildlife conservationists owe a large debt to Aldo Leopold’s pioneering Game Management (1933), for it was this book more than any other that first
articulated the parallels between sustainable agriculture and sustainable hunting. “Game management,” he wrote, “is the art of making land produce sustained annual crops of wild game for recreational purposes.” A professional forester, an avid hunter, and an innovative ecologist, Leopold took a practical approach to wildlife conservation in the United States: game animals should be cultivated, like wheat and corn, their numbers augmented for human consumption. “There are still those who shy at this prospect of a man-made game crop as at something artificial and therefore repugnant,” he noted. “This attitude shows great taste but poor insight. Every head of wild life still alive in this country is already artificialized, in that its existence is conditioned by economic forces.”

Farmers had long ago developed a variety of techniques—seeding, weeding, irrigating, fertilizing, fallowing, and the like—to maximize their annual yields. “Game cropping,” by contrast, was still in its infancy and the tools of the trade largely still experimental and in flux. “History shows that game management nearly always has its beginnings in the control of the hunting factor,” Leopold observed in the staccato-like prose for which he was famous: “Other controls are added later. The sequence seems to be about as follows: 1. Restriction of hunting. 2. Predator control. 3. Reservation of game lands (as parks, forests, refuges, etc.). 4. Artificial replenishment (restocking and game farming). 5. Environmental controls (control of food, cover, special factors, and disease).”

More than seventy years after it first appeared, Game Management is still widely read by wardens and foresters—and with good reason, for it is both a practical guide for preserving game animals and an early history of wildlife administration. Like many game managers before and since, however, Leopold largely overlooked one of the key tools of animal conservation: international treaties. Few game species reside solely within the borders of a single country. Most are mobile creatures that crisscross national frontiers according to their needs, living at certain times of the year in colder and more temperate regions and other times in warmer and equatorial ones. Hunting laws, predator control, forest reserves, game farming, and habitat manipulation are all indispensable tools of conservation, but they often have little practical value if neighboring countries do not take similar measures. Effective game management depends on interregional links, transnational cooperation, and international agreements.

Governments worldwide have signed nearly fifteen hundred environmental treaties and agreements over the past century, fully half of which address the question of wildlife protection directly or indirectly. Many are simple bilateral fishing agreements designed to protect a shared river or
a common delta. Others entail complex multinational initiatives that attempt to protect individual species or animal groups across many contiguous and noncontiguous countries. Still others handle habitat protection across thousands of miles, sometimes affecting regions far removed from human settlements. Big or small, comprehensive or limited, bilateral or multilateral, each treaty testifies to the importance of transnational cooperation in the effort to protect the world’s wildlife. Animals recognize no political borders: they feed and breed wherever they find suitable niches, and they move about the earth according to the dictates of habitat and climate, not human whim.3

This book analyzes several key animal-protection treaties that were signed in the first half of the twentieth century. Each was designed to protect one or more of the world’s most commercially valuable migratory species. Each exerted a powerful influence on other treaties in other parts of the world. And each had a lasting impact on nature protection worldwide. First, I analyze the two treaties that led to the creation of Africa’s nature parks: the Convention for the Preservation of Wild Animals, Birds, and Fish in Africa (1900) and the Convention Relative to the Preservation of Flora and Fauna in Their Natural State (1933). Then, I examine the two treaties that brought a halt to the slaughter of game birds in North America: the Convention for the Protection of Migratory Birds (1916), signed between the United States and Canada, and the Convention between the United States of America and the United States of Mexico for the Protection of Migratory Birds and Game Mammals (1936). Finally, I look at the three failed attempts to protect the world’s whale stocks: the Convention for the Regulation of Whaling (1931), the International Agreement for the Regulation of Whaling (1937), and the International Convention for the Regulation of Whaling (1946). That many of the world’s species today enjoy a modicum of protection from overhunting (or “overharvesting,” as Leopold would prefer) is largely due to the collective impact of these treaties. That many species still hover on the brink of extinction is also largely a consequence of the collective limitations of these treaties.4

The first half of the twentieth century marked the heyday of species-protection treaties, at least as measured by the sheer number of such treaties that were negotiated, signed, and ratified. But these treaties are only explicable within the context of the scientific-technological revolution (or “second industrial revolution”) that began in Europe and North America during the latter half of the nineteenth century. The ever-increasing demand for coal, petroleum, lead, copper, tin, ivory, rubber, coffee, bananas, tropical oils, and hundreds of other natural resources spawned a great
amount of competition among the European powers, pushing them in the direction of global imperialism. So did the construction of railroads and canals, the development of steel-hulled ships, and the invention of nitroglycerin. The result was a “scramble for Africa” that brought the sub-Saharan regions almost completely under European domination, a land rush that turned much of the western United States and Canada into cities and irrigated farmland, and a mad dash to Antarctica by the largest whaling companies. New killing techniques played a major role as well. One thinks here especially of the breech-loading and magazine rifles that Europeans took with them to Africa, the double-barreled shotguns that U.S. citizens pointed toward the skies of North America, and the grenade-tipped harpoon gun that Norwegian whalers used with such devastating effect on the high seas. Collectively, these forces initiated what can aptly be described as a war of extermination against the world’s wildlife.

No doubt, subsistence and recreational hunters had a modest impact on the world’s wildlife stocks in the early twentieth century, but it was market hunters who caused the bulk of the devastation. Market hunting was (and, on the high seas, remains to this day) essentially an extractive industry. Market hunters depleted species the way miners depleted ore seams, moving to new sites after exhausting the old ones, thinking only of today’s profit and not tomorrow’s patrimony. Behind the killing frenzy in Africa was the enormously lucrative trade in ivory, skins, and feathers, with ivory commerce alone accounting for most of the profit. Behind the avian slaughter in North America were the millineries and meatpacking industries, which turned millions of birds each year into hats and meat. Behind the boom in whale hunting was the demand for edible fats, with millions of pounds of blubber ending up as lard and margarine in the kitchens of Europe. The wastage was phenomenal. Elephant hunters took only the tusks, leaving the carcasses to the buzzards. Bird hunters would sometimes wipe out entire rookeries and flocks in a single day, with little thought to future migrations. And whalers could lose as much as one-fourth of their catch to the treacherous waters of the Antarctic. What made Leopold’s *Game Management* so important was that it called for a more sensible model of wildlife conservation, one that replaced the mining mentality of the market hunter with the more sustainable model of farming. The goal of farmers is not depletion but maximum yield.

Today, it is relatively easy to distinguish a market hunter from a sport hunter or a subsistence hunter, but a hundred years ago, the lines were still a bit blurry. Sport attracted thousands of Europeans and Americans to Africa on safari (Arabic and Swahili for “journey” or “caravan”) each year,
but few of these hunters showed any qualms about recouping part or all of their travel costs by selling tusks and other animal products on the open market. Similarly, a western settler in the United States or Canada might kill one bird species for subsistence, another for sport, and a third for the market—sometimes all on the same day. Whaling was more recognizably divided into market and subsistence hunting (sport hunting was all but nonexistent), but even here, there were crossovers: subsistence hunters often sold or traded what they did not consume, either to nearby communities or to faraway markets. By helping to establish different regulations for market, sport, and subsistence hunting, the treaties discussed in this book played a modest role in the creation of more distinct lines. And by promoting recreational over market and subsistence endeavors, they also helped create a hunting hierarchy.

Three words in the title of this book require clarification: game, conservation, and migratory. The term game derives etymologically from gaman, Old High German for “amusement,” a connotation that it still carries today. Any activity engaged in for pleasure or diversion—from professional soccer to church bingo—can be considered a game so long as the players adhere to an agreed-upon set of rules. Games are almost always associated with a certain amount of levity and frivolity, even if the players take their pursuit with utter seriousness. Only later did the word game become associated with hunting. No doubt this newer usage evolved from the amusement that European aristocrats derived from sport hunting, but game nowadays refers to any animal that humans hunt on a regular basis, whether for pleasure or for subsistence.

One of the chief purposes of any hunting law or treaty is to spell out the “rules of the game” in order to ensure that the prey remain plentiful for future generations of chasers. Fowl-hunting regulations in North America offered a success story in that regard. In other cases, however, laws and treaties turned out to be “games” in a different sense: they were diplomatic “diversions” that provided a legal framework behind which the carnage continued. Elephant and rhino hunting in Africa is one prominent example, and pelagic whaling in the Antarctic another, for no international agreement has ever successfully curtailed the hunt for ivory tusks, rhino horns, blubber, and whale meat. The game metaphor can certainly be carried too far, but surely it is worth noting that up to the mid-twentieth century, a large portion of ivory tusks were turned into billiard balls (and what is more frivolous than a game of pool?); that one of the principal motives for killing birds all over the world was to obtain their plumage
(and what is more frivolous than fashion?); and that whalers often jokingly referred to their annual sojourn to the Antarctic krill grounds as the “whaling Olympics” (and what is more frivolous than to declare the enterprise that massacred the most whales in the shortest period of time as the winner?).

Game is a highly problematic term, for there has never been universal agreement as to which animals should be targets and which should not. Most hunters and conservationists would probably agree that antelopes and ducks are game, but what about robins? New England bird-watchers always tended to see them as beautiful songbirds, but in the impoverished southern United States, they were once considered the main ingredient in “robin soup.” Captains of industry could readily defend the use of elephant tusks and whale baleen in a wide variety of commodities before the invention of plastics, but what about afterward? The demand for ivory and baleen continued long after there were readily available substitutes. Similarly, what genuine economic justification was there for the enormously expensive annual expeditions to the Antarctic, when many common plants—including palm, coconut, and flax (linseed)—produced edible oils that were all but identical to blubber oil? Did whales have to face near extermination so that there would be one more oil source on the world market? The answers to these questions are more political than ecological: the powerful decided what was “fair game”; the powerless did not.

Game also has a problematic antonym—vermin—defined as any animal that deserves eradication because it competes in some way with the spread of human settlements or agricultural growth. This term has some elasticity (elephants are game when hunted for their tusks but vermin when they trample crops), but there was always a good deal of consensus about which animals were meant: predators, such as crocodiles, lions, bears, wolves, and coyotes, that competed with humans for the same game animals or fed on domestic herds. If game and vermin have come to have an old-fashioned ring today, this is largely because the term wildlife (originally wild life) gradually supplanted them. But in the early decades of the twentieth century, game and vermin were more commonly invoked in everyday speech and diplomatic discourse than was wildlife; moreover, there was a much greater tendency to see animals as good or bad based on their behavior rather than in terms of their contribution to a stable ecosystem. (Who today divides feathered species into “game birds,” “birds useful to agriculture,” and “crop pests”?)

The term game law also has an antithesis—lawlessness, better known as poaching and (for whaling) pirating. Latin law, upon which both the
European and U.S. legal systems were based, viewed a wild animal as res nullius, an entity that belonged to no one until it was captured or killed. When European and U.S. governments later decided to regulate free-roaming animals, they were in effect asserting some level of proprietary rights over these animals while they were within their territory, much in the same way that property owners typically think of animals on their land as theirs. Enforcement, however, is no easy matter, so the effectiveness of game laws depends in large part on the willingness of most citizens or subjects to obey them, as well as on the willingness of authorities to implement them with force. When there is widespread resentment to a law—or an easy way to evade it—it will prove ineffective. The battle between enforcers (“wardens”) and resisters (“poachers”) is a longstanding one, and it is a battle laden with class and ethnic conflict. The introduction of game laws in early modern Europe pitted peasants against aristocrats, subsistence hunters against sport hunters, and local officials against government regulators. When game laws were introduced in North America, many settlers resented the fact that their everyday activities, such as hunting to put meat on one’s table, had suddenly become criminal acts. When Europeans later foisted game laws on their African colonies, the locals responded much as European peasants and American settlers had before them: they ignored and evaded the laws as best they could. “Every African is a poacher,” Kenya’s chief game warden, William Hale, would summarily pronounce in 1953, without a hint of irony or self-reflection.6

Environment and ecology are the buzzwords of wildlife protection today, but a century ago, the terms preservation and conservation reigned supreme, especially in the Anglo-American world. Preservation is typically associated with any effort to protect a specific species or a specific landscape from economic development or exploitation. This is often seen as a “hands-off” attitude to wilderness, but in practice, it was more of a “light-touch” approach, since most preservationists fully expected people to visit the protected sites and to use them for hiking, recreation, leisure, and touring. Conservation, by contrast, implies a commitment to the use of natural resources—animals, trees, water, land, minerals, and so forth—in a sustainable (typically dubbed “wise”) manner. Preservation was the term of choice in the nineteenth century, but conservation began to supplant it in the United States and elsewhere during the presidency of Theodore Roosevelt (1901–9).

Whether a change in terminology brought with it a genuine transformation in attitudes from “hands-off” to “wise-use” is not all that clear even in the United States, where the terms were in widespread use. It is
The Game of Conservation

even less clear at the international level. The 1900 London Convention, for instance, was cast in the language of species preservation, but its chief purpose was to create a sustainable basis for the trade in ivory tusks, animal skins, and bird feathers, an idea more associated with conservationism. The 1933 London Convention, by contrast, was couched mostly in conservationist terminology, but its most lasting impact was to promote the establishment of nature parks and game reserves, one of the chief goals of the preservationists. Similarly, the bird treaties of 1916 and 1936 were long on species preservation and short on habitat protection—despite the wise-use rhetoric that dominated the thinking of U.S. legislators at the time. The whaling agreements of 1931, 1937, and 1946 also belie the notion that conservationist rhetoric always translates into wise use: these treaties offered no protection to individual species until they had already become “commercially extinct” (that is, too rare to hunt profitably), while at the same time sanctioning the overexploitation of still-plentiful whale species under the guise of sustainability. In this book, the terms preservationist and conservationist will largely be used interchangeably, much as they were in international discourse during the first half of the twentieth century.

All animals move about in search of food and shelter, but not all are considered migratory. Biologists reserve that term to describe species that move with the seasons in search of suitable habitat and sustenance. Africa’s wet and dry seasons largely dictate the movement of elephants, zebras, wildebeests, and other game mammals, most famously on the savannas of East Africa (modern-day Kenya, Uganda, and Tanzania). In North America, heat and cold dictate the movement of swans, ducks, geese, and hundreds of other avian species. They “summer” in the northern latitudes of the United States and Canada and then “winter” (a well-entrenched misnomer, since they actually move southward to continue their summer) in the more equatorial latitudes of the southern United States, Mexico, Central America, and South America. This summer-winter pattern is also present on the high seas: whales typically feed in the Arctic and Antarctic regions when it is warmest there (July in the Arctic, January in Antarctica) and then head toward equatorial waters to breed when the poles become too cold.

Diplomats use a more restrictive definition of migration than do biologists: only those species that regularly cross national borders in their seasonal movements come under their purview, whereas those that stay within the confines of a single state remain dependent on domestic (or colonial) legislation for protection. This restrictive distinction is often inconsequential. Zebras, for instance, inhabit Tanzania’s Serengeti National Park
during the wet season (November to May) and then move to Kenya’s Masai Mara National Reserve during the dry season (June to October). Similarly, the Canada goose oscillates between its namesake nation and Mexico each year, and the American golden plover cycles between northern Alaska and the tip of South America. The gray whale, meanwhile, travels nearly ten thousand miles between its feeding grounds in the Bering and Chukchi seas and its breeding grounds in Baja California, the longest known migration of any mammal in the world. Animals that migrate thousands of miles typically cross many borders on their journey, making them the legitimate subject matter of treaty making. Occasionally, however, the term migratory has given rise to diplomatic ambiguities and legal challenges. In *United States v. Lumpkin* (1921), for example, a federal judge in Georgia had to decide whether mourning doves were migratory and therefore subject to the terms of the 1916 U.S.-Canadian bird treaty or whether they were nonmigratory because some flocks never flew far enough north to reach Canada during the summer months. (The judge took a pragmatic position, ruling that mourning doves were migratory because the treaty said so!)

The treaties analyzed in this book cover a wide variety of species over a diverse range of animal habitat—on land, on sea, and in the air. The African treaties were quintessential colonial accords: they were written by European administrators, not African leaders, and they reflected the priorities of colonial officials, not the indigenous populations. On the positive side, these treaties attempted to rein in the export trade in animal products and to establish protected sites for females and their young. On the negative side, they turned black Africans into poachers and permitted the removal of the Masai and other groups from territories designated as nature parks. The North American bird treaties were written mostly by U.S. conservationists and ornithologists, and they reflected the needs of U.S. hunters more than Canadian and Mexican ones. On the positive side, they helped bring an end to the commercial market in food and feathers, which was wreaking havoc on avian species worldwide at the beginning of the twentieth century. On the negative side, they did little to preserve habitat along North America’s four great migration routes (known as the Atlantic, Mississippi, Central, and Pacific flyways), and as a result, many protected birds today have trouble finding adequate places to feed and rest on their journeys. The whaling treaties were conceived and written by the major whaling nations, and they were designed to protect the business of whaling. On the positive side, they offered protection to those species that had
gone commercially extinct, thereby saving remnant populations of rights, bowheads, and grays from complete extermination. On the negative side, the International Whaling Commission (IWC)—the regulatory agency established in 1946 to protect the stocks for future generations—sat idly by as the major whaling companies brought many other whale species (blues, fins, and humpbacks, among others) to the brink of commercial extinction. A treaty that protects a species only after it has been decimated is hardly one that can be held up as a positive achievement.

Despite differences in scope and substance, the African, North American, and Antarctic treaties all had much in common. Each began as a national endeavor and then evolved into an international agreement. Germany (and later Great Britain) was the driving force behind the African treaties, the United States behind the bird treaties, and Norway behind the whaling treaties. Each treaty also originated as a piece of domestic (or colonial) legislation and then grew into something transnational. The German East African Game Ordinance of 1896—designed to regulate the trade in ivory, skins, and feathers in modern-day Tanzania—jump-started the establishment of Africa’s nature parks and game reserves. U.S. legislation, most notably the Lacey Act of 1900 and the Weeks-McLean Law of 1913, provided the backdrop for the North American bird treaties. And the Norwegian Whaling Acts of 1929 and 1935 provided almost all of the verbiage for the 1931 and 1937 whaling agreements.

Each treaty also began as a purely utilitarian effort to maximize game stocks for the benefit of future generations of hunters and then evolved (for better or for worse) into a more all-encompassing conservationist treaty. Few diplomats would have predicted, in 1900, that nature parks and game reserves would one day become the backbone of African conservatism, let alone that these protected areas would attract millions of camera-toting tourists each year in search of Eden. Even fewer thought, in 1916, that the U.S.-Canadian bird treaty would set the tone for avian protection in North America for the rest of the century and even act as a spur for similar bilateral treaties between the United States and Japan (1972) and the United States and the Soviet Union (1976). And no one foresaw, in 1946, that the IWC—the lapdog of the major whaling nations—would one day be transformed into an antiwhaling institution, though in fact that is what happened in 1982.

As the earliest industrial nation and the largest colonial power, Great Britain played a central role in formulating most animal-protection treaties in the first half of the twentieth century. The British Colonial Office hosted both the 1900 and 1933 African conventions, and British conserva-
tionists took the lead in establishing many of Africa’s most famous nature parks and reserves. The British Foreign Office represented the Dominion of Canada (which was still a semicolonony) in the negotiations with the United States over the 1916 bird treaty. British diplomats also exerted an immense influence over the terms of the whaling treaties, in part because Britain was a major whaling power (second only to Norway) and in part because a British-based consortium, Unilever, enjoyed a virtual monopoly over the global whale-oil trade. The U.S. presence deserves to be highlighted as well. President Theodore Roosevelt was actively engaged in the movement for African conservation, even if his safari excesses were a matter of international consternation. The United States played the lead role in the 1916 and 1936 bird treaties, and it hosted the 1946 whaling conference.

The strong presence of British and U.S. diplomats in the treaty-making process meant that Anglo-American notions of animal preservation and conservation tended to emerge victorious. It also meant that Anglo-American nongovernmental organizations were able to influence the terms of the treaty to a large degree. In Africa, the principal organization was the Society for the Preservation of the Wild Fauna of the Empire (also known as the Fauna Society), created in 1903 to lobby for the creation of larger game reserves and stricter game laws. It was nominally independent, but virtually all of its founding members were prominent statesmen and colonial administrators (not to mention big-game hunters) who maintained close ties to the British Foreign and Colonial offices. In North America, there were a variety of organizations—including the American Ornithologists’ Union, the National Association of Audubon Societies, and the American Game Protective and Propagation Association—pushing for greater international cooperation to protect birds. These organizations too were dominated by avid hunters and ex-hunters who were now trying to save the animals they had shot with such gusto a few years earlier. The first successful international organization—the International Union for the Conservation of Nature and Natural Resources (IUCN)—also had a strong British and U.S. presence; it was active in whaling issues in the 1950s and 1960s, though it became active too late to help formulate the treaties themselves.

The lobbying effort of these “penitent butchers” helps explain why so many countries around the globe were willing to sign and implement these treaties. But the prominence of hunters in the negotiating process also helps explain some of the treaties’ inherent weaknesses. They were largely designed to establish uniform game regulations across national borders so as to provide a level playing field for hunters and to reduce the
illegal transport of products across borders (via fencing and smuggling). They tended to focus almost exclusively on game animals to the neglect of other species. And all too often they paid inadequate attention to habitat protection. Africa’s earliest nature parks and game reserves were placed in areas that were considered to be economically useless, with little or no thought given to the migration routes; as a result, they often provided only part-time protection to game animals. Similarly, North American game hunters and legislators often showed more interest in setting aside land as public and private shooting grounds than as bird preserves, an obviously self-defeating policy in the long haul. The whaling nations, meanwhile, were quite open about the fact that they were willing to accept almost any restriction on hunting except the two that made the most sense from the perspective of conservation: a species-by-species annual quota based on stock size and reproduction rates, and large sanctuaries in key feeding and breeding grounds.

The economic liberalism and political decentralism of the Anglo-American tradition further limited the efficacy of the treaties. As an example, the British government focused almost entirely on the export market, and it put its funds into game wardens and customs officials in Africa. It largely ignored the import trade, even though the London commodities market (where a large portion of the world’s tusks, skins, and feathers were auctioned) was headquartered in the same city as the Foreign Office and Parliament. Similarly, states’ rights advocates in the United States did everything they could to thwart the bird treaties on the grounds that they would augment the power of the federal government at the expense of the states; they had a misplaced faith in the willingness of the individual states to create a sufficient number of reserves on their own. Though states’ righters were ultimately defeated, they did manage to thwart the establishment of the National Wildlife Refuge System for many decades. And by that time, farmers had drained many of North America’s premier wetlands, the very sites that migratory birds depended upon for their sustenance. The U.S. government repeated this mistake at the international level: it balked at the prospect of putting real regulatory teeth into the 1946 whaling treaty, relying instead on the so-called free market (which was actually a sheltered market) and on the goodwill of the major whaling nations and whaling companies—a mistake that proved nearly fatal to animal conservation in the Antarctic.

Issues of sovereignty also played a key role in determining the relative efficacy of these treaties. The European colonial powers were willing and able to work out agreements with each other, but they had trouble convincing
the Swahili Arabs who still controlled some of the trade routes that the 1900 and 1933 African treaties were worth paying attention to; further, they failed to bring Africa’s two independent regions, Liberia and Abyssinia (until 1935), on board. Many corrupt traders and colonial officials (including game wardens) were therefore able to circumvent the treaty restrictions by utilizing Swahili Arab middlemen to smuggle ivory, skins, and feathers. Similarly, Canada, the United States, and Mexico were able to work out an amicable arrangement for protecting birds in North America, but they were never able to bring the Caribbean, Central American, or South American states into the fold. Bird species with migratory routes that included the Southern Hemisphere were therefore only protected during certain times of the year. The whaling treaties were even more problematic. Enforcement would have been much easier if one country had controlled all of Antarctica or if the waters around that continent were under the jurisdiction of the League of Nations or the United Nations. But Antarctica was a continent without a people or a government, and the oceans around it belonged to no one, so it was child’s play for whaling enterprises (legitimate and pirate ones alike) to circumvent the restrictions.

Given the hurdles, perhaps the most remarkable aspect of these treaties is that they came into being at all and that they managed to place some restrictions on hunting, even if (as was the case with whales) they could not bring a complete halt to the slaughter. “To keep every cog and wheel,” Aldo Leopold wrote in *Round River*, “is the first precaution of intelligent tinkering.” Judged by this standard, all of the treaties—even the whaling ones—can be judged modestly successful: no African land mammals, North American bird species, or Antarctic whales have gone extinct on their watch.