

A HISTORY OF CONSERVATION

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Summary

In this Chapter conservation is defined as action to safeguard species and ecosystems, in their own right and as resources essential to humanity. It has ancient roots in many cultures. But the modern “conservation movement” is very much the creation of “northern” and especially European and North American societies. Conservation began with national efforts, stimulated especially by romantic literature, scientific discoveries and revulsion at the cruel and destructive exploitation of wild species, especially birds. Many national societies, and national laws carried it forward; National Parks, Game Refuges, Nature Reserves and National Forests were among its instruments. International action began in the first half of the twentieth century, culminating in 1948 in the creation of the International Union for the Protection of Nature, now IUCN—The World Conservation Union. The first non-governmental efforts to stimulate the public conscience and raise money for conservation followed with the formation of the World Wildlife Fund, WWF (now World Wide Fund for Nature) in 1962.

In the second half of the twentieth century a much wider and more activist “environmental movement” emerged, especially in North America. Governments responded by creating national Ministries for the Environment, passing new environmental laws, and (following the United Nations Conference on the Human Environment, held at Stockholm in 1972) by creating the United Nations Environment Programme. This new movement had a broad agenda of which traditional conservation was but one component.

UNEP and IUCN worked in close partnership, and one product of that alliance (which also embraced WWF) was the World Conservation Strategy of 1980—the most influential conservation document of the century. It proclaimed the indissoluble interlink age of conservation and development and the need for sustainable resource

use, and made conservation much more meaningful in the developing world. Many National Conservation Strategies followed, and the concept of sustainable development gained universal credence following the United Nations Conference on Environment and Development at Rio de Janeiro in 1992.

Today conservation is being carried forward through an increasingly close alliance between governmental and non-governmental agencies, at both international and national levels. The volume of national and international laws and agreements have multiplied greatly. The United Nations (and especially UNEP) remains the focus for global intergovernmental effort, while the World Conservation Union links most non-governmental bodies and is now decentralized with most of its staff and effort in the developing world.

1. The Origins of Conservation

1.1 Conservation and Development

Human history has been a process of what we call *development*—of transforming nature and making it subservient to human needs and purposes. That process has been the key to human achievement, and remains imperative in many regions.

Development has involved the progressive human take-over of the flows of energy within natural systems, with immense impact on the natural world. Early hunters altered ecosystems by fire, and by their extermination of many of the largest and slowest-breeding animals. But agriculture—the taking of selected plants and animals into human ownership—had a more profound influence because it established the dichotomy between “domesticated” and “wild” and began the familiar struggle between the two. Pastoralists slaughtered the wolves or lions that preyed on their flocks and herds, and killed the deer and antelopes that competed with their beasts for pasture. Agriculturalists attacked the “weeds” they could not eat and guarded their crops against wild herbivores as best they could. Urbanization and industrialization allowed people to live in robust shelters, and once agriculture secured the food supply people had time to perfect crafts and technologies that further enhanced human dominance.

Over much of human history, and in most human societies today, development is seen as wholly admirable. Today’s “conservation movement” is, in a sense, counter-cultural because it argues that the transformation of nature has gone too far and that nature needs protection *against* human society. That thought was born in the urbanized and industrialized world, where humanity has become both dominant and affluent—and has rediscovered the importance of the natural world to human welfare, human enjoyment, and even human survival. But by treating people and nature as if they were separate, and by seeming at times to place wild creatures above humans, this “northern” protectionist thinking stepped out of line with the values of many parts of the world.

The years since 1960 have seen a convergence in thinking and action. The International Biological Program of 1964–1974 explored the scientific basis of biological productivity, and its importance for human welfare. The UNESCO “Biosphere Conference” of 1968 led on to UNESCO’s Man and the Biosphere Programme, which

focused on the interrelationship between people and their environmental life-support systems. The UN Conference on the Human Environment of 1972, the World Conservation Strategy of 1980, the World Commission on Environment and Development which reported in 1987, the UN Conference on Environment and Development of 1992 and a host of other international and national activities have brought global acceptance that the human future depends on the conservation of the biological diversity of the planet and the sustainable use of its biological resources. Conservation and development have grown together.

1.2 The Roots of Conservation

Reverence for nature is ancient and almost universal. Early people sensed the presence of deities and spirits in the wilderness, and many legends and histories reach back to that period when the world of nature was at the heart of the world of humanity, and the two could not be separated. This ancient reverence led to special status for sacred mountains, springs, rivers and forests. Modern religions still emphasize the unity of the creation, of which humanity is but one part.

But conservation's roots had a practical element. Many hunting societies developed rules that demand respect for the quarry and operate to prevent destructive "overkill." Such rules may well have arisen through harsh experience, for there is good evidence that early human societies played a significant part in the extermination of many large mammals in the post-glacial period, in regions as far apart as northern Eurasia, North America, Patagonia, and Australia. Hunting controls persisted in much of medieval Europe, where rulers established "forests" where they and their servants had sole rights to the game. Several of today's famous Asian National Parks, including Royal Chitwan in Nepal, and Ujung Kulon in Java, were first established as hunting reserves. "Game reserves" have been a feature of East and Southern Africa for almost a century. Hunting societies that are also dedicated to the conservation of their quarries have played a major part in the modern conservation movement in the United States. The importance of hunting controls is indicated by the fact that a high proportion of the world's Governments have departments with responsibility for "game" management.

There is less evidence that early societies took action against resource depletion and pollution, although there are signs that environmental degradation caused by poor irrigation, deforestation, and over-population was a factor in the collapse of ancient Sumerian, Khmer, and Mayan civilizations. In classical Greek and Roman times, soil erosion and crop losses were recorded as consequences of deforestation and bad husbandry. Pollution by water borne sewage was a problem in imperial Rome, while air pollution from wood-, and especially coal smoke was a nuisance in cities such as London and Edinburgh in medieval times. Some laws were enacted to deal with these latter problems but effective ones did not appear until the late nineteenth century.

1.3 The Birth of Conservation

Despite the universality of concern for nature and the environment, the modern conservation movement is very much the creature of western European culture, exported in the era of European dominance to many distant lands. The "conservation

movement' in nineteenth century Europe and North America seems to have sprung from three sources: the rediscovery of the romantic in nature, the scientific exploration of the natural world, and revulsion at the cruel destruction of some wild species, especially birds.

Philosophers and naturalists were linked to the romantics. Gilbert White's celebrated *Natural History of Selborne* "advocated simplicity and humility in order to restore man to peaceful co-existence with nature." Jean Jacques Rousseau emphasized that nature was *good* and that the closer people were to nature the freer, happier and more honest they became. In North America Ralph Waldo Emerson wrote of nature as the first in time and in importance of all the influences on the human mind. The influence of romantic poets like William Wordsworth was also profound, and Wordsworth's *Guide to the Lakes*, published in 1810, proposes the treatment of the Lake District as a kind of National Park: "a sort of national property, in which every man has a right and interest who has an eye to perceive and a heart to enjoy." The writer W. H. Hudson argued that nature protection must be a part of any true culture, while Henry David Thoreau, who has been described as "the spiritual founder of the modern crusade to preserve what is left of our wilderness", argued that, "in wildness is the preservation of the world."

These literary contributions were flanked and stimulated by the reports of naturalists like Sir Joseph Banks (who accompanied Captain James Cook in the Pacific), Joseph Hooker, who accompanied Sir James Clark Ross in 1839–1843 and Charles Darwin, whose *Voyage of the Beagle* had an immense impact. Science nurtured new insights. The Swedish naturalist, Carl von Linné (Linnaeus) devised the first concise and universally applicable system of classification of plants and animals, and gave a great boost to interest in natural history. Darwin's *Origin of Species*, published in 1858, transformed the educated person's view of humanity's place in the world. The German geographer, Alexander von Humboldt, promoted the idea of nature protection alongside other ideas about what we would now call ecological inter-relationships. In North America, George Perkins Marsh wrote the world's first major treatise on humanity's destructive impact on the natural world.

In 1866 the German scientist Ernst Haeckel first used the term "ecology," to describe the web that linked organisms and their surrounding environment. The ideas he promoted were developed in two ways. Scientific ecologists examined the nature of the interlinkages between different kinds of living organism, evolving concepts like that of the ecosystem as an assembly of interacting plants and animals, together with their physical and chemical environment. "Political" ecologists, meanwhile, considered how people should inter-relate with nature, providing the ground rules for various back-to-the-land movements which gained popularity in Europe in the 1920s and were in some ways fore-runners of the post-World War II "green" movement.

The third major stimulus to conservation in Europe and North America was revulsion against the destructive exploitation of wild species. In the 1860s the shooting of seabirds off the British coast for "sport" inspired the Seabirds Act of 1869, followed by three other laws to protect wild birds. Around the late 1860s, a group of German farmers and foresters who were worried about the ravages of insect pests following the destruction of their natural predators formed a bird protection organization. A little later, the

massacre of egrets, gulls and other species to provide wings, plumes and feathers for women's fashions provoked a campaign in which women figured prominently. The massacre of elephants and other "game" animals in southern Africa, and the devastation of bison and extinction of the once abundant passenger pigeon in the United States fuelled further demands for action.

2. The Rise of Conservation

2.1 The Creation of National Parks and Nature Reserves

Action for conservation began at the local, and then at the national level. While hunting preserves established by rulers or powerful magnates were ancient, nature reserves from which hunting was excluded were rarer. One of the first was established in 1569 by the Swiss Canton of Glarus, which prohibited hunting on a mountain named the Karpfstock. In 1576 the Wood of the Hague was set aside by the then Prince of Orange and the State of Holland; in 1826 Walton Park in England was made a bird sanctuary by its owner, Charles Waterton; in 1838 the first Czech Protected Area was created; and in 1858 Napoleon III protected part of the forest of Fontainebleau as the first nature reserve in France.

Even if Wordsworth was their first advocate, the modern National Parks movement is unquestionably an American creation. In 1864 the Congress granted the Yosemite Valley to the State of California, to be held inalienably "for public use, resort and recreation." Congress established the world's first National Park —Yellowstone— in 1872. The trickle soon became a flood, spreading from North America to Europe and to the many parts of the world colonized by Europeans. Australia established its first Royal National Park in 1879, Banff in Canada followed in 1885, and Tongariro in New Zealand in 1894 (although the mountain at its heart had been sacred to the Maori people for generations before). Europe was led by Sweden, which established six Parks in 1909. Nature Reserves, as smaller areas managed to protect flora and fauna, were established in parallel: in the United States over 50 such reserves were declared before 1909.

The American National Parks were envisaged as large tracts of wild land without human inhabitants—a vision associated especially with John Muir, who founded the Sierra Club in 1892. The approach clearly only worked where empty space abounded or could be created, so that in Europe such parks were rarer and much smaller (even the Swiss National Park, established in 1914, extends to only 16 887 hectares compared with the 899 139 of Yellowstone or the stupendous 3 382 014 ha of the Wrangell–St Elias Park in Alaska). In the United Kingdom, control of development under Town and Country Planning laws was seen as a means of preserving the natural beauty of a peopled countryside. The steady outward sprawl of suburbia into a countryside suffering from agricultural depression made landscape protection the dominant conservation concern in Britain in the 1920s and 1930s. After 1945, the process culminated in the establishment of so-called national parks where development was controlled by strict planning regimes. One consequence was semantic confusion and long argument over what a "real" National Park should look like.

From an early stage, there were arguments over whether conservation was about keeping human hands off nature or regulating the use of natural resources so that they were not dissipated for short-term individual gain. In the United States, John Muir was the champion of the unspoiled wilderness, while Gifford Pinchot, Chief Forester under President Theodore Roosevelt, was the pioneer of what would now be called “sustainable development.” Pinchot argued that while natural resources should be developed, waste must be prevented and the many rather than the few should benefit. His ideas had worldwide influence, and were reflected in forest management in India, Australia, South and East Africa, and New Zealand.

2.2 The Foundation of National Societies

Interest in natural history led to the foundation of several hundred local societies and clubs in Britain by the 1880s, but these were not primarily concerned with conservation. The Society for the Protection of Animals (later the Royal Society for the Prevention of Cruelty to Animals) was, however, established in 1824 and by the 1870s was campaigning against “cruel sports.” Elsewhere in Europe, Dr Edward Baldamus proposed the protection of animals, and especially birds, to the first assembly of the German Ornithological Society in 1845. The Societe Nationale de Protection de la Nature et d’Acclimatation de France was founded in 1854. The German Bird Protection Society appeared in 1875 and what later became the British Royal Society for the Protection of Birds in 1889. In the United States, the American Ornithologists Union dates from 1883, while in 1886 George Blake Grinnell, who grew up on the Audubon estate, led the action to protect birds against plumage hunters: the eventual result was the National Audubon Society. In 1886 Grinnell was also co-founder, with Theodore Roosevelt, of the Boone and Crockett Club whose members had to be hunters, but whose mission was to conserve their quarry.

Other Societies were concerned with landscape and habitats. In Britain, the National Trust was born in 1895 from a movement to safeguard Wordsworth’s Lake District, and progressively acquired areas of outstanding scenery as well as historic buildings. Other voluntary bodies like the Council for the Preservation of Rural England (with counterparts in Wales and Scotland) encouraged this process. A French Society for the Protection of Rural Areas appeared in 1901. In Britain, the Society for the Promotion of Nature Reserves was created in 1912 by N. Charles Rothschild, who organized a survey of the remaining outstanding wildlife habitats in Great Britain and Ireland and identified 273 key sites, some of which were purchased and established as reserves. In Switzerland, Paul and Fritz Sarasin founded the Swiss League for the Protection of Nature in 1909, and this promoted both national parks and nature reserves.

2.3 American Conservation under Roosevelt

President Theodore Roosevelt was the first leader of a major nation to put conservation on a national agenda. John Muir, who was probably the driving force behind the creation of 53 wildlife reserves, 16 national monuments and 5 new national parks in the Roosevelt era, influenced him. But Gifford Pinchot was the President's right hand on conservation issues. Together they preached that conservation was “an issue of democracy. The resources of the public domain were to be used for the benefit of all the

people, not just the powerful.” In 1909, as his period of office came to an end, Roosevelt created a National Conservation Commission which made the first survey of natural resources throughout the United States, and convened a North American Conservation Congress.

There was a great burgeoning of American conservation societies in the early part of the twentieth century. The Izaak Walton League, founded to safeguard wetlands, rivers and fishing waters, the National Wildlife Federation, the More Game Birds Foundation (later Ducks Unlimited) and the Wilderness Society all sprang up between 1920 and 1936, and by 1927 the first of these alone had more than 100 000 members in 43 States. The scientific contribution to conservation developed especially through the pioneering research and stimulating writings of Aldo Leopold - yet another hunter-conservationist, and a founder of the Wilderness Society. American conservationists began to work in Asia and Africa as well as the Western Hemisphere. In 1919 two of them—John C. Merriam and Fairfield Osborn—together with Victor Van Straelen of Belgium, influenced the creation of National Parks in the then Belgian Congo. Harold (Hal) Coolidge, later to be one of the leaders of world conservation, was stimulated by field experience in West Africa and Indo-China to become a co-founder of the American Committee for International Wildlife Protection, composed of representatives of the most important American institutions interested in zoology and the preservation of wildlife.

Political influence returned when President Franklin Delano Roosevelt was elected to office. He appointed an active, campaigning conservationist, J. N. “Ding” Darling as head of the US Bureau of Biological Survey (later US Fish and Wildlife Service), and at Darling’s prompting, convened a North American Wildlife Conference in February 1936. One result was the creation of what became in 1938 the National Wildlife Federation, initially started by hunters to protect waterfowl breeding and feeding grounds: a second consequence was the first National Wildlife Week, proclaimed by President Roosevelt in 1938. The proclamation called on all citizens to give thought to the need for conservation, stressing that “only through the full cooperation of all can wildlife be restored for the present generation and perpetuated for posterity.”

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