

The Columbia Guide to Environmental History, Carol Merchant
Part III Chronology: An Environmental History Timeline (p. 249-267)

13,000 B.P.–A.D. 1500: Settlement of North America

The Bering Land Bridge allowed people to cross from Eurasia to North America. Humans arrived in present-day Alaska at least by 13,000 B.P., and in the present-day lower United States by 11,500 B.P.

1492–1580: European exploration of North America

In 1492, following Viking voyages, Columbus began the exploration of the New World. He was followed by John and Sebastian Cabot's voyage from England to the present-day Canadian coast in 1497, the French explorer Jacques Cartier in 1534–45, and by Giovanni da Verrazano's 1524 exploration of the Atlantic coast of the present-day United States. Between 1540 and 1542, Francisco Vasquez de Coronado explored the American Southwest, and from 1539 to 1542 Hernando DeSoto explored the Southeast. Sir Francis Drake sailed up the West Coast of North America between 1577 and 1580.

1580: Spanish settlement of Southwest

Between 1598 and 1605, Don Juan de Oñate explored New Mexico, with the desire to Christianize and “civilize” the Pueblo Indians. The Mission system and its Franciscan priests/friars attempted to establish Christianity as the Native Americans' new religion; they substituted the Virgin Mary for the Pueblos' Corn Mother.

1585–90: John White's depictions of Roanoke/Indians

John White was a member of the 1585–86 failed attempt to settle Roanoke Island (off the coast of North Carolina). He served as leader of the 1587 “Lost Colony” of Roanoke. He went to England to get more supplies for the colonists, only to find they had deserted the settlement, saying they had gone to “Croatoan” (area on south end of island), but the colonists were never found. White's drawings of Native American life were published in 1590.

1607: English settlement of Chesapeake Bay area

In 1607, Jamestown, Virginia was settled by John Smith and others. By 1614, tobacco was found to grow well in Maryland and Virginia, giving the settlers an important crop to trade with Europe.

1620–30: English settlement of Massachusetts Bay area

The Pilgrims came to the New World on the *Mayflower*, founding Plymouth Colony for religious and economic reasons. In 1630, the Puritans under John Winthrop settled the Massachusetts Bay Colony.

1691–1729: Broad Arrow Policy

This English policy reserved the white pines of the New England forest that were more than two feet in diameter (at one foot off the ground) for the King (for masts for the Royal Navy).

1705: Robert Beverley's *History and Present State of Virginia*

Robert Beverley cataloged the natural resources and peoples of Virginia, describing the tobacco South as a garden that could make the colonists lazy and cause them to fall into a naïve harmony with nature.

1760–1820: Soil conservation experiments in Virginia

Gentleman farmers and agricultural improvers in Virginia—such as Washington, Jefferson, Madison, John Taylor, and others—experimented with soil improvement. They used contour and deep plowing, soil rotations, animal and vegetable manures, legumes and grasses, and chemicals such as lime, marl, and gypsum to neutralize acid soils.

1773: Phillis Wheatley's poems about nature

Phillis Wheatley was born in 1753 on the west coast of Africa, enslaved, and educated in the Wheatley's Boston home by the mother and daughter. She was certified as an authentic poet, well versed in classical and biblical literature, by members of Boston's upper class. Her book was the first published book of poetry by an African American, and the first published book of literature by a female African American. Her poems indicated to the culture of the times that African Americans could be educated and think creatively.

1775–83: American Revolution

The American Revolution began with Paul Revere's ride to Lexington to warn Samuel Adams and John Hancock of an imminent attack by the British and ended with the surrender of Lord Cornwallis at Yorktown, Virginia in October 1781. The Treaty of Paris that officially ended the war in 1783 created boundaries for the new republic that extended from the Atlantic coast westward as far as the Mississippi River.

1776: Declaration of Independence

The Declaration of Independence drew on the concepts of nature and reason that prevailed during the eighteenth-century Enlightenment, asserting that it had become “necessary” in the “Course of human events” for the American people “to assume among the Powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them.” The Declaration stated: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness.”

1785: General (Land) Ordinance of 1785

The land ordinance that went into effect two years after the American Revolution established the rectangular survey system of 6-mile square townships divided into 36 sections of 640 acres each. The system became the basis for settlement and land entry patterns such as the 160-acre, or quarter section homestead.

1787: Thomas Jefferson's *Notes of the State of Virginia*; agrarian ideal

Jefferson's *Notes on the State of Virginia* described nature and farming practices in Virginia, arguing that wheat was better for the soil than tobacco and that independent farmers were the chosen people of God.

1803: Louisiana Purchase

The Louisiana Territory, which had been transferred from Spain to France in 1800, was purchased by the United States in 1803, doubling the size of the nation and extending its boundaries westward of the Mississippi along the concourses of the Arkansas, Platte, and Missouri Rivers to the Continental Divide.

1804–6: Lewis and Clark Expedition

Under Thomas Jefferson's urging, Congress appropriated funds in 1803 for an expedition to explore the upper reaches of the Missouri River and the Oregon Territory. Merriwether Lewis and William Clark led the expedition to study the flora, fauna, and minerals of the region and to map its latitude and longitude. The expedition left St. Louis in the spring of 1804, spent the winter of 1805–1806 at the mouth of the Columbia River on the Pacific Ocean, and returned to St. Louis in September of 1806.

1808–34: John James Audubon's depictions of birds and life in the United States

Audubon's *Delineations of American Scenery and Character* (published 1926) depicted nature and life in America, the depletion of forests, the transformation of the land through settlement, and America's vanishing wildlife. In an age before binoculars, Audubon shot birds in order to paint them. His paintings often portrayed the bird as the subject, in a stylized background.

1812–15: War of 1812

The War of 1812 with the British over free maritime trade ended in 1815 with the Treaty of Ghent, with U.S. territory intact. Trade resumed between the United States and Europe, opening an extended period of economic expansion called the market revolution. New lands for settlement opened up westward of the Mississippi, and the concurrent transportation revolution facilitated the development of a dynamic internal market economy.

1836: Ralph Waldo Emerson's *Nature*

In 1836, Emerson published *Nature* and helped to found the Transcendental Club, both of which promoted the philosophy of Transcendentalism, which looked to nature for manifestations of ideal, spiritual truths from which to gain insights into the divine One.

1836–49: Hudson River school of painters

The Hudson River painters made nature the subject of their paintings (as opposed to human portraits). The paintings often portrayed the dualism of light versus dark, and wild versus civilized. Humans were small in size and often depicted as intruders in nature, rather than as the main subjects of the paintings.

1844: George Catlin's paintings of American Indians and nature in the Great Plains

George Catlin's work draws a parallel between the disappearing American wilderness and the disappearing Native Americans. He showed European Americans the everyday lives of the “noble savages.” Catlin proposed a national park for both Indians and nature on the Great Plains.

1846: Thomas Hart Benton's “Manifest Destiny”

Missouri Senator Benton urged settlement of the newly acquired Oregon, based on what he perceived as the superiority of the “white” race over the “red, yellow, black, and brown” races.

1849: California Gold Rush

The mining that ensued after James Marshall's 1848 discovery was detrimental to California's environment: mining camps polluted air and water, hydraulic mining clogged rivers with debris (affecting farmers downstream and the aquatic life in the rivers); mercury used in the mining process killed wildlife in the areas surrounding the infected streams.

1854: Henry David Thoreau's *Walden*

Thoreau lived in a cabin at Walden Pond, near Concord and Boston, Massachusetts between the years 1845 and 1848. He went to Walden to try to understand the world and to live simply on the land. He believed that nature was alive, and said that “In Wildness is the preservation of the World.” He was one of the most famous members of the Transcendentalist school of thought.

1861–65: Civil War

The Civil War over the freedom of African Americans from bodily bondage was fueled by the northern states' abolitionism, political power, population growth, economic expansion, and their failure to enforce the Fugitive Slave Law resulting from the Compromise of 1850, over freedom versus slavery, in the new western territories ceded by Mexico. After the Civil War, the South entered a period of reconstruction, in which plantation owners resorted to sharecropping contracts with free blacks to obtain labor for recovering cotton production.

1862: Homestead Act

This act authorized any head of a household (male or female) who was a citizen (or declared their intention to become one) to gain title to 160 acres of unappropriated land after five years of settlement. It was often abused by speculators illegally in order to gain title to large amounts of land.

1862: Morrill Land Grant Act

This act granted each state a minimum of 30,000 acres of public land to sell, to create a fund for the establishment of a college of agriculture and mechanic arts. Its purpose was to increase technology for developing resources.

1863: Frances Anne Kemble's *Journal of a Residence on a Georgian Plantation in 1838–1839*.

Kemble was an English actress before marrying an American plantation heir. Her journal and letters to friends contrast her disgust with the slave system and her love of the natural beauty of the American South.

1872: Yellowstone Park Act

The Yellowstone Park Act set aside “a tract of land lying near the headwaters of the Yellowstone River as a public park,” creating the nation's first national park.

1873: Isabella Bird's *A Lady's Life in the Rockies*

Bird's letters describing her appreciation for female-personified nature contrast with more modern ideas of nature as a commodity for resources and profit. Women, like Bird, were especially important in the preservationist movement.

1873: Timber Culture Act

In an effort to create more wooded vegetation and moisture on the Great Plains, the federal government authorized the donation of 160 acres of land to individuals who would plant 40 acres of it in trees and maintain them over ten years.

1876: Appalachian Mountain Club founded

The club was founded as a hiking and conservation club in order to preserve the balance of nature while maintaining ways for people to enjoy the wilderness.

1878: Free Timber Act

This act promoted settlement by giving residents of nine western states the privilege of cutting timber on public mineral lands.

1878: Timber and Stone Act

In an effort to encourage settlement of the western United States, the government allowed the sale of 160 acres of land in Washington, Oregon, California, and Nevada unfit for agriculture, but useful for tree harvesting and stone extraction.

1878: John Wesley Powell's Report on the Arid Lands of the United States

Powell served as head of the Bureau of Ethnology, and also as the director of the U.S. Geological Survey. He declared that the land west of the 100th meridian—the 20-inch rainfall line, where rainfall was consistently not more than 20 inches per year—was arid. He believed that 2,560 acres were necessary for western farms, if the land was not to be irrigated, whereas 80 acres was sufficient for irrigated farms.

1885: Adirondack Forest Preservation Act

The Adirondack Forest Preserve, created by the New York State legislature, was one of the nation's earliest efforts to preserve forests and watersheds and create recreational areas for the public.

1886: Creation of the Division of Forestry

The Division of Forestry was created in 1886 to administer the country's forest reserves. Under pressure from forester Gifford Pinchot, the reserves were transferred into the

Department of Agriculture in 1905 on the grounds that trees were crops that could be planted and harvested.

1887: Dawes Act

Passed as the General Allotment Act, the Dawes Act was an effort to induce Indians to become farmers by allotting communally held tribal lands in 160-acre parcels to tribal members.

1887: Desert Lands Act

To encourage the settlement of arid lands in the western United States, the federal government authorized the sale of 640 acres (one section) of land to anyone who irrigated it within three years.

1887: Hatch Act

The Hatch Act established agricultural experiment stations to do research on the production of food, fiber, and nutrition and disseminate the results to the public.

1892: Founding of the Sierra Club

Under the leadership of John Muir, the Sierra Club promoted protection of the environment and facilitated outdoor enjoyment of the mountains of California and the West.

1892: Ellen Swallow introduces the term *oekology* to America

Swallow's term *oekology* soon became *ecology*. She intended it to be the study of the "earth's household," the environment in its role as the home of all people.

1893: Frederick Jackson Turner's "Significance of the Frontier in American History"

The 1890 census declared the American frontier non-existent. Turner argued that the frontier produced rugged individualism and democracy, and thus this environment determined the character of American people and institutions.

1897: Forest Management (Organic) Act

To promote development of the West, the act authorized the Secretary of the Interior (the department that administered the forests at the time) to permit timber harvesting, mining, and water use on the forest reservations by settlers, miners, residents, and prospectors.

1897: Louis Hughes's *Thirty Years a Slave*

In his 1897 autobiography, ex-slave Louis Hughes described life on a southern cotton plantation, including the techniques of cotton planting, pest control, harvesting, and ginning.

1900: Lacey Act

In response to the decimation of birds used for their feathers in the millinery trade, Congress passed the Lacey Act, authored by Iowa Congressman John Fletcher Lacey, prohibiting the interstate and international trade in illegally taken wildlife.

1900–13: Progressive Conservation Movement

“Conservation” was defined as the wise use of natural resources to benefit the greatest number of people for the longest time. The term conservation was introduced in 1907 by Gifford Pinchot and WJ McGee to embrace the collective use and preservation of forests, waters, soils, and minerals.

1901: Right of Way Act

In 1901, Congress allowed the Secretary of the Interior to permit rights of way through public lands, national forests, and national parks.

1901: Booker T. Washington's *Up from Slavery*

Washington's autobiography describes his life as a slave in Virginia and his rise to the head of Tuskegee Institute in Alabama, where he promoted the use of agricultural improvement through courses, conferences, and county fairs.

1902: Reclamation Act

The Reclamation Act financed federal irrigation projects in the arid West by selling public lands. It also established the Bureau of Reclamation to oversee the administration of western water and irrigation works.

1902: Bernhard Fernow's *Economics of Forestry*

Fernow served as first chief of the Division of Forestry. He viewed the individualism established on the frontier as detrimental to the conservation of natural resources, because it assaulted the rights of the many in favor of the rights of the few. He believed that forests should be managed to save them for future generations.

1906: American Antiquities Act

In 1906, Congress passed an act that authorized the President to create national monuments by preserving federal lands that contained historic landmarks and prehistoric structures.

1908: Winters Doctrine

In 1908, in response to complaints by western Indian tribes, the United States Supreme Court affirmed the water rights of Indian tribes in the western states.

1908: Theodore Roosevelt's Conference of Governors

Roosevelt's speech at the Conference of Governors launched the conservationist movement as a national cause.

1909–13: National Conservation Congresses

Five National Conservation Congresses were held between the years of 1909 and 1913, in order to bring public attention to the need to conserve natural resources. Many groups participated, including women's organizations. The resulting contributions to the conservationist cause were immensely significant.

1910: Jane Addams's *Twenty Years at Hull-House*

As founder of the Hull House refuge for the poor, Addams encouraged women in their efforts to control garbage and other pollution in the tenement-house districts of Chicago.

1913: Hetch Hetchy Dam (Raker Act)

Passage of the Raker Act—authorizing construction of a dam in Hetch Hetchy Valley in Yosemite National Park, to supply water and power to the city of San Francisco—was the culmination of several years of national controversy between preservationist John Muir and forester Gifford Pinchot over the damming of a river in a national park.

1914: Extinction of the passenger pigeon

On September 1, 1914, after decades of shooting for sport and market profits, Martha, the last passenger pigeon, died in the Cincinnati Zoo.

1914–18: World War I

During World War I, the United States eventually joined the Western Allies in Europe in the fight against the Central Powers of Germany, Austria-Hungary, Turkey, and Bulgaria. During the war and its aftermath, natural resource conservation was superseded by resource and agricultural development, which led ultimately to environmental decline, economic depression, and the disastrous Dust Bowl of the 1930s.

1916: National Park Service Act

Congress passed the National Parks Act, creating the National Park Service to administer the thirteen existing national parks and future parks and monuments set aside for their scenery and aesthetic beauty.

1916: Frederic Clements's *Plant Succession*

Clements believed that plant communities' development is similar to that of a complex organism (a human, for example) and that the plant community grows in such a way as to reach a climax state.

1918: Migratory Bird Treaty Act

The act protected migratory birds from excessive hunting, selling, and shipping between the United States, Canada, and, later, Mexico.

1929–38: The Great Depression and the New Deal

Franklin Delano Roosevelt's New Deal to overcome economic depression is closely linked with conservation and preservation. The New Deal established and promoted numerous agencies involved with the environment.

1933: Tennessee Valley Authority (TVA) created

The Tennessee Valley Authority (TVA) was created to develop the resources of the Tennessee River Valley to achieve flood control, navigation, electrical power generation, and reforestation; and to improve the economic wellbeing of the people of the valley bringing electricity to rural households and providing employment during the Depression.

1933: Robert Marshall's *The People's Forests*

Under the conservationism of the New Deal, Marshall's ideas for a program to turn over private forests to government were well received. Although he came from a wealthy family, he promoted access to the outdoors for people of all classes.

1933–45: New Deal Conservation

New Deal conservationist programs included TVA, or the Tennessee Valley Authority, which was chartered to “develop” resources in the valley; the construction of many dam projects in the western U.S.; the CCC, or Civilian Conservation Corps, which enlisted young men to develop parks and wilderness areas; and the SCS, or Soil Conservation Service, which advocated the creation of soil banks and the prevention of soil erosion.

1933: Founding of the Civilian Conservation Corps (CCC)

The Civilian Conservation Corps (CCC) was a New Deal program to relieve unemployment by allowing young, unmarried men to receive food, housing, and a small salary in exchange for working on federal projects to conserve soils and other natural resources. It was abolished in 1942.

1934: Taylor Grazing Act

The Taylor Grazing Act was passed to establish grazing districts, manage livestock grazing, and to retain unreserved public domain lands.

1935: Soil Conservation Act

In response to the devastations of the Dust Bowl during the 1930s, Congress passed the Soil Conservation Act, establishing a permanent Soil Conservation Service in the United States Department of Agriculture.

1935: Founding of the Wilderness Society

Founded by Bob Marshall and others in 1935. The Wilderness Society proposed the Bob Marshall Wilderness (one million acres in northwest Montana) in 1940 to commemorate Marshall's 1939 death.

1936: National Wildlife Federation founded

The National Wildlife Federation was founded to conserve fish, wildlife, and other natural resources and to lobby for legislation to conserve wildlife.

1937: Pittman-Robertson Wildlife Restoration Act

In 1937, Congress passed the Pittman-Robertson Act in order to provide federal aid to the states to restore and manage wildlife and acquire wildlife habitat.

1941–45: World War II

Environmentally, World War II served as the dividing line between New Deal responses to the environment and the modern environmental movement. Technological advances invented or brought into wide use during the war (atomic bomb/energy, DDT) posed threats to the safety of the environment and humans. Before the war, efficient

management of resources dominated environmental thought; after the war, people began to emphasize environmental quality and human and ecological health.

1946: Creation of Bureau of Land Management (BLM)

As part of the Department of the Interior, the BLM, created by merging the General Land Office and Grazing Service, is responsible for the administration and management of federal lands, deserts, and minerals.

1948: Water Pollution Control Act

As the first federal law to deal officially with water pollution, the Water Pollution Control Act authorized funding for state and local governments to identify and improve polluted waters.

1949: Aldo Leopold's *A Sand County Almanac*

In his book *A Sand County Almanac*, Leopold put forward the land ethic: “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.” He also proposed the “A-B Cleavage”: land as a resource/commodity to be used versus land as biota, a place where organisms should be left to flourish. The book provided the basis for the modern environmental revolution.

1951: Nature Conservancy founded

The Nature Conservancy was founded as a citizen's environmental organization dedicated to purchasing and protecting the habitats of plants, animals, and natural communities that represent the diversity of life on earth.

1962: Rachel Carson's *Silent Spring*

Carson was a well-respected author and scientist, and her book was both an environmental and a popular success. The book identified and discussed the environmental impact of pesticides (especially DDT), including their concentration as they move up the food chain and insects' development of genetic immunity (requiring still stronger pesticides).

1963: Clean Air Act

The Clean Air Act of 1963 modified the 1955 Air Pollution Control Act by allocating permanent funding for the work of state pollution control agencies.

1964: Wilderness Act

Congress designated certain federal lands as wilderness areas, “where the earth and its community of life are untrammelled by man, and where man himself is a visitor who does not remain.”

1965: Land and Water Conservation Fund Act

The Land and Water Conservation Fund Act was passed in order to preserve, develop, and assure accessibility to outdoor recreation resources.

1965 Water Quality Control Act

The Water Quality Control Act gave the Federal Water Pollution Control Administration the power to establish water quality standards.

1968: Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act protected free flowing, undammed rivers that had outstanding scenic, geologic, historic, recreational, or wildlife features.

1968: Indian Civil Rights Act

The states' increasing control over American Indian lands was reversed by the Indian Civil Rights act, which mandated tribal consent in civil and criminal juridical matters concerning Indian lands.

1968: Paul Ehrlich's *The Population Bomb*

The *Population Bomb* discussed the negative impacts that the population explosion of the late twentieth century would have on food and other resources. It drew on Malthus's idea that the rich control their population, but the poor multiply.

1969: Santa Barbara oil spill

On January 28, 1969, an oil well off the coast of Santa Barbara California erupted, spewing oil for ten days into the ocean, polluting the coastline of California, and triggering safeguards and reforms in the energy industry.

1969: Friends of the Earth founded

The international organization Friends of the Earth (FOE) was founded in 1969 to protect the planet from environmental disaster and to preserve biological, cultural, and ethnic diversity.

1969: The National Environmental Policy Act (NEPA)

NEPA required every federal agency to prepare an Environmental Impact Statement (EIS) for any legislation or project that would affect the quality of the human environment. It also created the Council on Environmental Quality (CEQ), which advises the president on environmental quality and compliance with NEPA.

1970: Founding of the Environmental Protection Agency (EPA)

The Environmental Protection Agency was created in the executive branch of the federal government for the purpose of regulating air and water quality, radiation and pesticide hazards, and solid-waste disposal, amalgamating earlier separate federal programs.

1970: Earth Day / Environmental Movement

Earth Day was promoted by Wisconsin Senator Gaylord Nelson, who called on students to fight for environmental causes and to oppose environmental degradation (such as the 1969 Santa Barbara oil spill) with the same vigor they used for fighting the Vietnam War.

1970: Clean Air Act

The Clean Air Act regulated air emissions and authorized the U.S. Environmental Protection Agency to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment.

1970: Natural Resources Defense Council founded

The Natural Resources Defense Council (NRDC) was founded as a citizen's organization to draft environmental laws, lobby for their passage, and litigate for their implementation.

1971: Alaskan Native Claims Settlement Act

Alaskan Eskimos, Aleuts, and Indians received federal grants, federal and state mineral revenues, and land in exchange for their agreement to settle long-standing land claims.

1972: Federal Water Pollution Control Act

The Federal Water Pollution Control Act set the basic structure for regulating discharges of pollutants to waters of the United States and shifted responsibility for control programs from the states to the federal government.

1972: Coastal Zone Management Act

The law created a federal program to develop plans for the protection and development of coastal areas for beneficial use of the coastal zone.

1973: Endangered Species Act (ESA)

The law gave authority to list threatened and endangered species and to protect their vital habitat. The subject of intense controversy and conflict over resource development, the law has nevertheless been repeatedly extended.

1974: Institute for Social Ecology founded

The Institute for Social Ecology was founded in 1974 in Plainfield, Vermont, to study social ecology, an interdisciplinary field drawing on philosophy, political and social theory, anthropology, history, economics, the natural sciences, and feminism.

1976: Toxic Substances Control Act (TOSCA)

In response to public pressure over pesticides and environmental toxins, Congress passed a law regulating public exposure to toxic materials.

1976: Federal Land Policy and Management Act

The act retained public lands in public ownership, established guidelines for the sale of public lands, and gave the Bureau of Land Management (BLM) the statutory authority to set grazing, preservation, and mining policy, and to undertake long term planning based on multiple use.

1976: Resource Conservation and Recovery Act (RCRA)

Congress passed the Resource Conservation and Recovery Act in 1976 to protect human health and the environment, to reduce waste, and to conserve energy and natural resources.

1978: Endangered American Wilderness Act

Designated lands in the Western states were added to the National Wilderness Preservation System to increase watershed, wildlife-habitat, and scenic and historic preservation.

1980: Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; Superfund)

Allowed the Environmental Protection Agency to designate and respond to abandoned hazardous waste dumps and to sue to recover cleanup costs. Set up a five-year, \$1.6-billion trust fund financed by a tax on industrial feedstock chemicals.

1980: Alaska National Interest Lands Conservation Act (ANILCA)

This act was designed to preserve Alaskan lands and waters that have “scenic, historic, or wilderness values.” It provided rural Alaskan residents with the right to continue a subsistence way of life.

1980: “Women and Life on Earth” conference

In 1980 the conference on “Women and Life on Earth: Ecofeminism in the '80s” in Amherst, Massachusetts, marked the beginning of ecofeminism as a movement in the United States and undertook to explore and act on the cultural connections between women and nature.

1982: Environmental Justice Movement

In 1982 a group of African Americans protested the designation of a landfill site in Warren County, North Carolina, for disposal of toxic PCBs (polychlorinated biphenyls), initiating the environmental justice movement.

1985: Publication of Deep Ecology: Living as if Nature Mattered

In 1985, philosopher George Sessions and sociologist Bill Devall published *Deep Ecology: Living as if Nature Mattered*, drawing on philosopher Arne Naess's 1973 term, “deep ecology” and promoting the concept as a new consciousness about the connection between humanity and nature.

1986: Emergency Planning and Community Right-to-Know Act

Industries were required to report toxic releases and communities were asked to plan emergency responses.

1987: Water Quality Act

In 1987, Congress ended federal funding for treatment of wastewater and directed the states to list toxic hot spots.

1987: Montreal Protocol

An agreement was signed in 1987 by twenty-four countries, including the United States, to phase out, by 1999, production of chlorofluorocarbons (CFCs) that break down the earth's protective ozone layer.

1989: North American Wetlands Conservation Act

The act authorized funding for the conservation of wetland habitats in Canada, the United States, and Mexico to implement the American Waterfowl Management Plan developed in 1986.

1989: Exxon Valdez Oil Spill

In March 1989, the *Exxon Valdez* oil tanker ran aground in Alaska's Prince William Sound, spilling 11 million gallons of crude oil, killing thousands of sea otters, shorebirds, salmon, and herring, and jeopardizing coastal habitats and the state's economy.

1990: Clean Air Act amended

Amendments to the Clean Air Act tightened restrictions on air pollution emissions that cause smog, acid rain, airborne toxins, and chlorofluorocarbons.

1990: Pollution Prevention Act

A law was passed in 1990 that gave corporations incentives to reduce pollutants by implementing changes in production, operation, and use of raw materials.

1990: Spotted Owl listed as a threatened species

In June 1990, the U.S. Fish and Wildlife Service listed the spotted owl as a threatened species under the Endangered Species Act, initiating steps to protect its habitat in the forests of the Pacific Northwest and setting off numerous protests by timber industry advocates.

1991: First National People of Color Environmental Leadership Summit

Held in Washington, D.C., in October of 1991, the Leadership Summit gathered together peoples of color to form a movement to promote environmental justice as a basis for public policy, calling for the cessation of production of and protection from hazardous wastes and toxic substances.

1992: Earth Summit

In 1992, 172 countries sent representatives to the Earth Summit (in Rio de Janeiro, Brazil) to discuss and create a plan to combat environmental, economic, and social problems facing the international community.

1994: California Desert Protection Act

A law was passed to set aside and protect as wilderness millions of acres of land in the California deserts.

1996: Grand Staircase-Escalante National Monument

The Grand Staircase-Escalante National Monument in southern Utah was created by President Clinton in an executive action that set aside 1.7 acres of Utah as wilderness.

1996: Safe Drinking Water Act Renewed

Congress reauthorized and amended the Safe Drinking Water Act of 1974 to emphasize sound science, community-empowered source water assessment and protection, public right-to-know, and water system infrastructure assistance.

1997: Kyoto Protocol

An agreement was reached in December 1997 by the Climate-Change Conference, held in Kyoto, Japan, that would set legally binding limits on greenhouse gas emissions and require industrialized nations to reduce their emissions below 1990 levels by 2012. It required ratification by 55 nations responsible for 55 percent of greenhouse gas emissions.

2000: World Population surpasses six billion people

In October 1999, the world population reached six billion people and population continued to swell with the possibility of another doubling by 2040.