



## THEODORE ROOSEVELT

1858-1919

He may have carried a big stick in foreign policy, but Teddy Roosevelt's greatest accomplishment was domestic. Curbing the relentless private exploitation of America's natural treasures, especially in the West, he brought millions of acres of land into the public domain, helped by the indomitable Gifford Pinchot (1865-1946), head of the revitalized U.S. Forest Service. Favoring rational exploitation of resources, T.R. and Pinchot were not environmentalists in the current sense. But together they made conservation national policy for the first time in U.S. history.

## JOHN MUIR 1838-1914

Whether climbing Alaskan glaciers or guiding Teddy Roosevelt through Yosemite National Park, left, Scottish-born John Muir saw wilderness as something quasi-spiritual, where "tired, nerve-shaken, over-civilized people" could find renewal. As a nature writer and the Sierra Club's founding president, he argued eloquently for preservation, as when he battled to save Yosemite's beautiful Hetch Hetchy Valley—you might "as well dam for water tanks the people's cathedrals and churches," he fumed. Muir lost, yet his words still echo with each new threat to wild places.

CULVER PICTURES

PAUL HARRISON—STILL PICTURES



## ERNEST SCHUMACHER

1911-1977

As economists go, German-born Ernest F. ("Fritz") Schumacher was an oddball. He didn't believe in endless growth, mega-companies or unlimited consumption. His 1973 book with the bumper-sticker title *Small Is Beautiful* became an eco-bible (worldwide sales: 4 million copies). Urging the West not to foist fuel-gulping technologies on poor nations, he instead favored "appropriate" solutions—oxen, say, rather than job-eliminating tractors. In posthumous tribute, even the World Bank now agrees that small-scale aid projects, relying mainly on the people themselves, are indeed beautiful.

# A CENTURY OF HEROES

By Frederic Golden

For most of history, humanity just struggled to survive in an unforgiving environment. Only in the past century or so did we start to dominate nature and overrun the planet. Rather than defend ourselves against nature, we began to realize, we needed to defend nature against ourselves. Thus was born the environmental movement. These pages recognize men and women who helped give us this awareness—and pointed the way to protecting the only home we have.



LARRY BURROWS COLLECTION

## VISIONARIES

### BARBARA WARD 1914-1981

In books, articles and lectures, Britain's Barbara Ward did more than anyone else in her day to focus attention on the Third World—and the fact that its poverty threatened the entire natural world. "I read it like I do the Bible," said President Lyndon Johnson of her 1962 study, *The Rich Nations and the Poor Nations*. A Roman Catholic, she cheered the church's fight against inequity. Her plea for ecological sanity, *Only One Earth*, helped shape the U.N. environment conference in Stockholm in 1972. Co-author René Dubos praised her as an "economist who can talk to people through her human qualities."



MICHAEL NICHOLS—MAGNUM PHOTOS

**JANE GOODALL** 1934-

She irked fellow scientists by giving her subjects real names and imputing humanlike motives to them. But Jane Goodall's iconoclastic studies of the chimpanzees of East Africa's Gombe forest led to a totally new view of these primates. Supersmart, skilled toolmakers and capable of happiness, pain and anger, the chimps, she discovered, form societies almost as complex as ours with matriarchs, politicking and such nastiness as tribal wars. Having shown we're not separated from other animals by "an unbridgeable chasm," the elegant British researcher is crusading to save the world's remaining chimps.

**PAUL CRUTZEN** 1933-  
**F. SHERWOOD ROWLAND** 1927-  
**MARIO MOLINA** 1943-

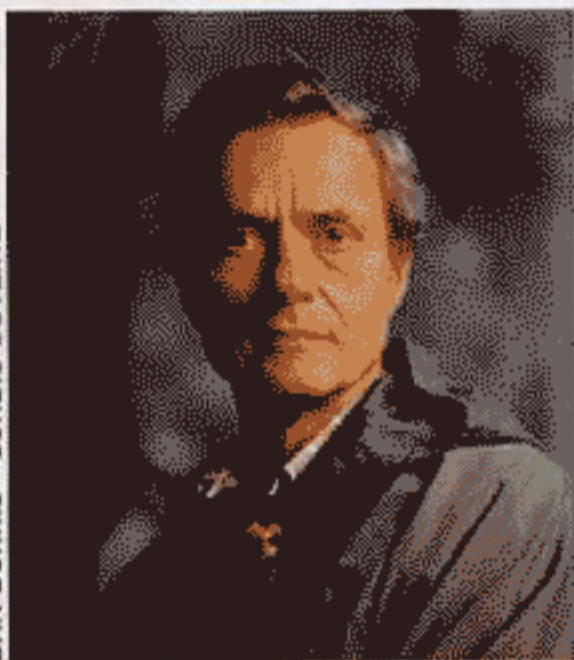
Many scientists sneered when Paul Crutzen, on the left in the picture, proposed man-made chemicals as a threat to the earth's ozone shield. But skepticism faded when an ozone "hole" was found over Antarctica in 1985. Crutzen, a Dutch chemist, fingered nitrogen oxides, but American F. Sherwood Rowland, center, and his Mexican postdoctoral student, Mario Molina, spotted the major culprit: chemicals called chlorofluorocarbons, which broke up in the atmosphere, releasing ozone-wrecking chlorine atoms. The 1987 Montreal Protocol phasing out CFCs followed—as did Nobel Prizes for the sci-sleuths.



JACK MIKRUŠ—PRESSENS BILD

SCIENTISTS

DAN BORRIS—CORBIS OUTLINE



**GEORGE SCHALLER**  
1933-

Once, when a Bengal tiger chased him up a tree, George Schaller clapped his hands and shouted, "Go away, tiger, go away!" The big cat walked off. The incident illustrates the German-born biologist's first rule: Don't study animals along the barrel of a gun. With just notebook and camera, he has followed lions in Africa, wild sheep in Tibet and giant pandas in China. His findings, popularized in books like *The Serengeti Lion*, have upset myths (gorilla aggressiveness, for instance), proved the value of predators and shown why you can't save animals without saving habitat.

**E.O. WILSON**  
1929-

Pixieish as he may look, Harvard entomologist E.O. (for Edward Osborne) Wilson once stirred anger with ideas that he dubbed "sociobiology." In the 1970s, he got doused with a pitcher of cold water for his claim that such human behavior as sexuality, aggression and altruism had a genetic basis. Now, however, the two-time Pulitzer prizewinner (*On Human Nature*, *The Ants*) is almost universally revered for articulating the importance of biodiversity—the intricate web of plant and animal species, including his beloved ants, that keeps Earth healthy.

GREGORY HEISLER—CORBIS OUTLINE



## A CENTURY OF HEROES



JOE THOMPSON

### JACQUES-YVES COUSTEAU 1910-1997

Through books and films, Jacques-Yves Cousteau shared his close encounters with dolphins, sharks, whales and other sea creatures with armchair divers around the world. He was a showman nonpareil, as when he described his first scuba dive in his mellifluous French accent: "I stood upside down on one finger and burst out laughing." But the former French navy officer had a serious side. Cruising the oceans in his vessel *Calypso*, he became increasingly worried about their health and founded the Cousteau Society to sound the alarm.

### RACHEL CARSON

1907-1964

Just as Abe Lincoln greeted Harriet Beecher Stowe, author of the antislavery novel *Uncle Tom's Cabin*, as "the little lady who started this whole thing," so environmentalists see Rachel Carson for her role in their contemporary war. A marine biologist, she wrote three poetic books about the sea. But it was her last book, *Silent Spring* (1962), that struck like a thunderclap, documenting the deadly carnage wrought by pesticides, notably DDT. Their victims were not only springtime birds, she said, but every human being "from the moment of conception until death." Some scientists called her hysterically alarmist, but the public took her seriously, forming the first grassroots environmental groups, while President Kennedy and the U.S. Congress began studies that ultimately vindicated her. She is deservedly hailed as the mother of modern environmentalism.



ALFRED EISENSTADT—LIFE

## COMMUNICATORS

### ALDO LEOPOLD 1887-1948

As a young forester in the U.S. Southwest, Aldo Leopold shot a wolf. Reaching the mortally wounded animal, he recalled in his influential *A Sand County Almanac*, he watched "a fierce green fire dying in her eyes" and had a change of heart. Discarding the forest-exploitation ideas of his day, he advocated total protection of certain wilderness areas, including predators. *Almanac*, published posthumously, broadened this notion into what he called "the land ethic," which said in effect that anything harming an ecosystem is "ethically and aesthetically" wrong.

### ANSEL ADAMS

1902-1984

His striking, pellucid black-and-white images of the American West make Ansel Adams' photographs instantly recognizable. But the San Francisco-born Adams, whose love affair with photography began on a vacation trip to Yosemite in 1916 with a Brownie box camera, had a grander goal: to save those glorious landscapes. As early as 1950, he warned against reckless lumbering, overgrazing and pollution. But his most persuasive arguments were visual—pictures that forever showed why such treasures as Yosemite and Yellowstone were worth protecting.

NANCY NEWHALL, COURTESY OF SCHEINBAUM & RUSSEK LTD., SANTE FE, N.M.



ROBERT MCCABE—UNIVERSITY OF WISCONSIN-MADISON ARCHIVES



## BARRY COMMONER 1917-

Called the "Paul Revere of ecology" and featured in a 1970 *TIME* cover story, Brooklyn-born biologist Barry Commoner was one of the first scientists to worry about a deteriorating environment; he established a pioneering ecological center at Washington University in St. Louis in 1966. A maverick in his science—he didn't initially accept DNA as heredity's master molecule—and a polemical writer (*Science and Survival*, *The Closing Circle*), he won 200,000 votes in the 1980 presidential race on the eco-based Citizens' Party ticket. At 82, he remains an active warrior for the environment.

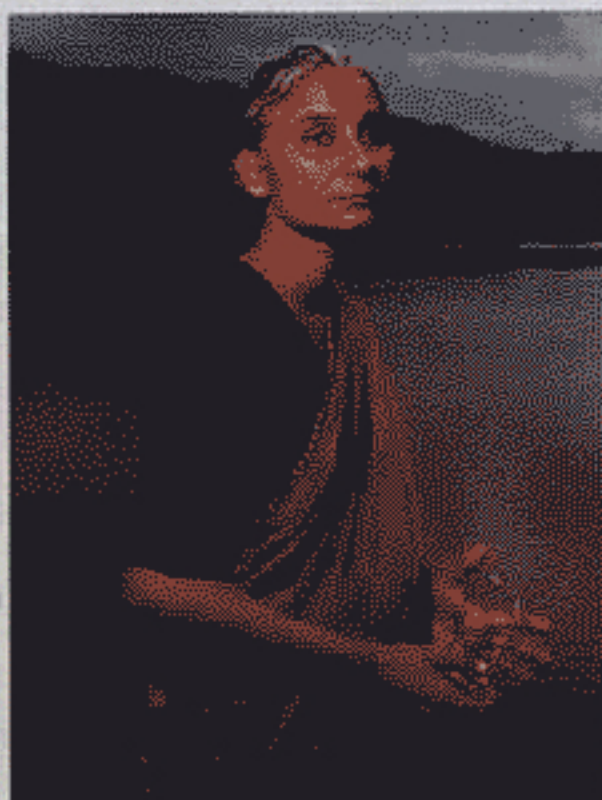


TIMOTHY REAGAN

## ACTIVISTS

### MEDHA PATKAR 1954-

It was a planner's dream: dams to harness central India's Narmada River. But Medha Patkar, a young, largely self-taught activist, was appalled by the price: huge amounts of land swamped, half a million villagers displaced and a lush river basin ruined. Leading hunger strikes, enduring beatings and vowing to drown herself in a flooded area, she got the World Bank to withdraw support of the key Sardar Sarovar dam and scared off investors from a second major dam. But the Indian government persists with the project, and Patkar fights on.



THOMAS HALEY—SIPA



ADRIAN ARBIB—CORBIS

### WANGARI MAATHAI

1940-

Disturbed by shortages of firewood, the essential fuel for Kenya's poor, as well as growing soil erosion and deforestation, Wangari Maathai began a small tree-planting operation in Nairobi in the late 1970s. Composed largely of women, her Green Belt Movement quickly spread throughout Kenya and beyond. Then she turned to politics, including an unsuccessful run for President and protests against reckless development. When President Daniel arap Moi wanted to erect a 62-story office tower in Uhuru (Freedom) Park, a vital public space, her band of mothers and grandmothers forced the dictator to back down.



EROL BAYKAL—GREENPEACE

### ROBERT HUNTER 1941- PAUL WATSON 1950-

When Bob Hunter, right, and Paul Watson joined buddies in Vancouver in 1971 to protest U.S. nuclear testing in the Arctic, they didn't realize they were setting off their own explosion. Calling themselves Greenpeace, the Canadians went on to stage demonstrations against sealing and whaling, all with media-savvy stunts, like hovering over a seal pup in front of a huge icebreaker. Even so, Watson quit Greenpeace as too timid and started the more radical Sea Shepherd Conservation Society, whose tactics include ramming whaling ships. Eventually Hunter quit as well, but the two left a big legacy: a wave-making outfit ever ready for new battles, the latest against genetically modified foods—or, in Greenspeak, Frankenfoods.

## MARTYRS

### COMMON-WEALTH?

### KEN SARO-WIWA

1941-1995

Kenule (Ken) Beeson Saro-Wiwa was a Nigerian man of letters, a newspaper columnist, novelist, poet and author of the television show *Basi and Company*, about a young man always in and out

of trouble. But in the '90s, he quit his TV career to lead a campaign against oil drilling that was devastating the lands of his Ogoni tribe. His crusade was derailed when his movement was implicated in the killing of four pro-government chiefs. Despite global protests and his pleas of innocence, he was hanged for murder. But he is not forgotten, as shown by the sign above, displayed outside a 1997 meeting of Commonwealth nations.



MARK EDWARDS—STILL PICTURES

### CHICO MENDES

1944-1988

Illiterate until age 18, he eked out a living as a rubber tapper, collecting latex from the Amazon's trees. Yet Chico Mendes became Brazil's environmental conscience. He not only organized his fellow tappers into a rural workers' union but also formed them into human barriers whenever chain saws and bulldozers threatened

the rain forest that was their livelihood. Mendes' Gandhi-like tactics brought him global acclaim—and enemies. A week after celebrating his 44th birthday with his children and his wife Ilza, shown with his picture, he was cut down by ranchers' bullets.