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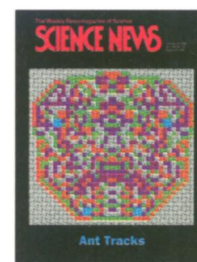
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Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

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Letters

Wetlands: Science vs. politics?

The battle of wetland delineation is more a result of heavy-handed federal regulation than good science ("Two Views of a Swamp," SN: 7/22/95, p.56).

Congress is reacting to the plight of private landowners who have had all or portions of their property "taken," in most cases without compensation. Whereas the general public strongly favors the environment over the economy, it also clearly believes landowners should be compensated when their property is controlled for the public's welfare.

Craig Earnest
Cleveland, Tenn.

The concept that the environment was pure and pristine "in colonial times" seems to be a general and pervasive affliction.

One can reasonably doubt that current def-

initions of wetlands prevailed in colonial times, and one can produce neither land surveys nor satellite photos to substantiate the wild claim that "in colonial times, wetlands covered 221 million of the United States' 2.3 billion acres."

Claims of this nature are political and do not belong in a science publication.

As to the pristine environment, one can only imagine the massive amounts of crude oil oozing from natural seeps—perhaps billions of gallons each day! The Red River was most certainly receiving its current 4,000 tons per day of salt from natural salt deposits along its tributaries. And one can only imagine how polluted the rivers became with mil-

lions of buffalo defecating and urinating as they drank.

John E. Rhoads
Wichita Falls, Texas

After reading "Two Views of a Swamp," it became obvious to me that the legislators' problem in defining wetlands is the name "wetland" itself. They get lost in the question of how wet instead of how valuable.

Let's call such areas Biologically Valuable Zones—and then watch with satisfaction as they slowly get it through their heads that the entire planet could be so labeled.

Eric R. Krueger
Eagle, Idaho

I believe the importance of wetlands in contributing free oxygen to the atmosphere is largely overlooked.

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CORRECTION

The photograph of *AfterShock* ("Hybrid Cars," SN: 10/7/95, p.232) was taken by Andrew A. Frank of the University of California, Davis.

Books

Books is an editorial service for readers' information. To order any book listed or any U.S. book in print, please remit retail price, plus \$2.00 postage and handling for each book, to **Science News Books**, 1719 N St., N.W., Washington, DC 20036. To place Visa or MasterCard orders, call 1-800-544-4565. Domestic orders only.

At War Within: The Double-Edged Sword of Immunity—William R. Clark. After providing a thorough synopsis of how the immune system works, Clark looks at how the "sixth sense" can often turn from a loyal protector into a Judas. Beginning his story with the first known attempt to conquer the immune system—immunizations against smallpox—Clark examines in depth a number of immune deficiency diseases, from allergies to AIDS. He also shows how the body's defense system works almost too well against transplanted organs. Concluding chapters address the mind's power in influencing the immune system. OUP, 1995, 275 p., hardcover, \$25.00.

Impact Jupiter: The Crash of Comet Shoemaker-Levy 9—David H. Levy. The codiscoverer of the comet that ultimately crashed into Jupiter last summer shares his extraordinary experiences tracking the comet, witnessing the collision, and summarizing its aftermath. Written in the first person, the book covers the methods of observation, the known and predicted consequences, and the U.S. government's reaction—installing comet-detecting devices. Plenum, 1995, 290 p., b&w photos, hardcover, \$25.95.

Israel: Splendors of the Holy Land—Sarah Kochav. Oversized and lavishly illustrated, this book provides an overview of the history, archaeology, people, and cultures of ancient and modern Israel. The text is concise, but the photographs and illustrations admirably present and recreate that which is no longer standing and explain that which is. Thames Hudson, 1995, 292 p., color photos and illus. hardcover, \$50.00.

Leading Minds: An Anatomy of Leadership—Howard Gardner with Emma Laskin. A professor of education at Harvard, Gardner attempts to construct the foundation of leadership. First, he defines a leader as someone able to influence the thoughts, behavior, and feelings of others across many domains. He then contends that the people who excel at this pursuit are those best able to convey stories, whether directly, through speech, or indirectly, through equations, ideas, or art. Gardner argues that the most effective leaders resolve issues in their own minds and then change the minds of others—skills that are honed as children. Eleanor Roosevelt, J. Robert Oppenheimer, George C. Marshall, Margaret Mead, and Martin Luther King Jr. are among the 11 people whose style and methodology are analyzed in light of these theories. Basic, 1995, 400 p., hardcover, \$27.50.

National Audubon Society Field Guide to African Wildlife—Peter C. Alden, Richard D. Estes, Duane Schmitter, and Bunny McBride. Small enough to fit easily into a backpack on safari, this guidebook nonetheless manages to stuff its pages full of data pertinent to the wildlife and nature reserves of Africa. Introductory essays about the geography of the continent and particular points of interest are followed by color photographs and descriptions of 850 of the most common species of African mammals, birds, reptiles, and insects. A glossary and indexes make the book especially useful. Knopf, 1995, 988 p., color photos and b&w illus., paperback, \$19.00.

The Physics of Star Trek — Lawrence M. Krauss. Just how close is the world of Kirk and Picard to the real world of modern physics? Closer than you might think, reports Krauss as he illustrates aspects of theoretical physics through scenarios played out on *Star Trek* and its offshoots. He explains what warps when you are traveling at warp speed, what happens when you get beamed up, and what antimatter is and how it relates to the Enterprise, among a variety of other things. He also explores the feasibility of some of the Enterprise's adventures, as well as which of the finer points of theoretical physics the creators got right and wrong. Basic, 1995, 188 p., b&w plates, hardcover, \$18.50.

The Sixth Extinction: Patterns of Life and the Future of Humankind—Richard Leakey and Roger Lewin. As in their previous collaborations, *Origins* and *Origins Reconsidered*, Leakey and Lewin combine their expertise in paleoanthropology and evolutionary biology in order to assess the evolutionary future of *Homo sapiens*. They present data indicating that more than 30,000 species are eradicated from Earth each year at the hands of humans, matching the 65 percent rate prevalent in previous mass extinctions. Knowledge gleaned about past extinctions from studying fossil records and the organization of ecological communities bolsters their argument that humans must be preservation-minded and learn to live in harmony with other species. Doubleday, 1995, 271 p., b&w illus., hardcover, \$24.95.

What Are Hyenas Laughing at, Anyway?—David Feldman. For anyone who answered Feldman's call at the end of his last Imponderables book, this is your opportunity to see if he heard you. Why do saltines have holes? Why do buildings have ledges? Why is the flag painted backwards on aircraft and space shuttles? Why does pepper make us sneeze? This assortment is representative of the more than 100 readers' questions posed and answered. Putnam Pub Group, 1995, 283 p. b&w illus., hardcover, \$21.95.

Why the Earth Quakes: The Story of Earthquakes and Volcanoes—Matthys Levy and Mario Salvadori. Two structural engineers explain in lay terms the fundamental causes of earthquakes and volcanoes and then apply this knowledge to buildings. Levy and Salvadori investigate some of the greatest natural disasters to date and evaluate what was learned from those experiences, especially in terms of what withstood the shock and what did not. They indicate where such occurrences are most likely to happen and discuss engineering methods for producing shock-proof buildings, retrofitting structures, and evaluating why some buildings collapse and others do not. Norton, 1995, 215 p., b&w illus., hardcover, \$25.00.

Wild Life: The Remarkable Lives of Ordinary Animals—Edward Kanze. In 50 eloquent vignettes, naturalist Kanze examines the bizarre behaviors of some common species thriving in North America. Divided into four sections—American Birds, Fur and Wide (mammals), In Cold Blood (reptiles and amphibians), and Odds and Ends—the book introduces crabs with blue blood, birds with bad attitudes, squirrels that can be mistaken for bats, and the feeling of a porcupine's quills. Crown Pub Group, 1995, 212 p., b&w illus., hardcover, \$21.00.

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As almost everyone knows, a plant takes in CO₂ and gives off O₂.

However, what everyone doesn't know is that plant tissues oxidize after death, binding the same amount of free oxygen that any given plant produced in photosynthesis—unless the plant dies in a swamp, bog, or marsh. There, it sinks to the bottom to undergo anaerobic reduction to hydrogen and carbon. (Decomposing critters may also reduce plant tissues in their guts, but the ability of wetlands to isolate oxygen from this process is far greater.)

Knowing this, swamp gas may actually begin to smell better to some folks.

Countries such as Brazil and Colombia are roundly criticized for destroying the rain forests and the free oxygen produced there. However, we would do well to look to the wetland destruction our country has experienced.

Redefining our environmental regulations may seem like a picnic in comparison to cajoling a Third World nation away from a slash-and-burn means to quick economic gains.

Joseph H. Robinson
San Francisco, Calif.

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