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Cover: In victory or defeat, athletes remain, from a physical point of view, bodies in motion. Now, scientists bring mathematical models, simulators, and robotics to bear on analyzing sports. (Photo: Nancie Battaglia/Lake Placid, N.Y.)

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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

Indigenous uses of fish poisons

Was it editorial serendipity or genius that placed an article on Chinese herbal medicine ("Yin and Yang," SN: 9/9/95, p.172) on the pages following the report "Paper pulp and fish kills" (p.171)?

The discovery that a broad spectrum of chemicals in effluents from pulp and paper mills is toxic to fish emphasizes the effectiveness of various practices common among Pacific Rim peoples who have used herbal medicines and vegetal poisons for centuries.

California's indigenous peoples used turkey mullein (*Eremocarpus setigerus*), soaproot (*Chloragalum pomeridianum*), buckeye (*Aesculus californica*), and manroot (*Marah* spp.) plants and plant parts to poison, drug, stun, or stupefy fish. The Jawoyn peoples of northern Australia still use native plants for fish poisons.

Fish kills and herbal medicine contain a

very important political message. Habitat and species preservation are essential to biodiversity. Chemical products evolved by living organisms affect every aspect of humanity's existence. This should be clearly stated during our efforts to guarantee congressional passage of a strong and viable Endangered Species Act.

Hans Bertsch
Imperial Beach, Calif.

Elementary, my dear

I read with interest "Strings and Webs" (SN: 8/26/95, p.140), in which Peterson reports that Strominger, Greene, and Morrison conclude that "black holes and elementary particles are really one and the same thing...."

While this sounds paradoxical, there is an intuitive explanation.

If one is looking at a truly elementary particle—one that cannot be divided into two or more objects—then that particle has to have infinite density. Yet this is precisely what

characterizes a black hole, thus the observation that every elementary particle is really a black hole.

Simcha Z. Pollack
Jamaica, N.Y.

Sickening subject

I was disappointed to read the misuse of the word "nauseous" in "Why do hamsters stay on the wagon?" (SN: 9/23/95, p.200). The error is common in general usage, but I've noticed that people in the medical field do not make this error, and I expect the same from the scientific community.

Peter Morris
Austin, Texas

Merriam Webster's Collegiate Dictionary states: "Those who insist that nauseous can properly be used only in sense 1 [causing nausea] and that in sense 2 [affected with nausea] it is an error for nauseated are mistaken."
—The Editors