

## Lobster Mystery

A financial windfall has given scientists studying a massive lobster die-off in Long Island Sound a head start on collecting data—and a better shot at determining the culprit. The Connecticut Department of Environmental Protection (DEP) discovered several weeks ago that the state had collected \$200,000 last February as part of a pollution settlement. The extra cash will allow lobster researchers to start work immediately instead of waiting until federal and other state funding becomes available.

Lobster die-offs happen every fall, says Ernie Beckwith, director of fisheries at the Connecticut DEP, but "extraordinary" mortalities in the fall of



This lobster survived Long Island Sound.

'98 and '99 decimated the lobster industry in the western half of the sound. In response, Congress last month approved \$13.9 million for research and economic aid, and Connecticut plans to chip in another \$1 million, but the funds won't be paid out until October at the earliest.

Although many lobstermen and environmentalists linked the die-offs to increased spraying of pesticides, particularly for

mosquitoes and mosquito larvae, University of Connecticut veterinarian Richard French believes the cause "may be multifactorial." Last year, he notes, the sound had record high water temperatures for a record period of time. Nevertheless,

he and his team plan to first collect data on the levels of water contaminants—including malathion, a pesticide widely used to kill mosquitoes—to attempt to measure their effect on lobster health. French hopes to be out on the sound as early as next week. "If we don't start collecting data now," he says, "it'll be more difficult to pin down a cause."

## Fine-Tuning an Award

Two astronomers have won what is being touted as the "first ever" award for cosmology. Allan Sandage and P. J. E. (Jim) Peebles will get \$150,000 each from the Gruber Foundation, founded by Wall Street magnate Peter Gruber. Sandage is an experimentalist renowned for his measurement of the rate of expansion of the universe: the Hubble constant. Peebles is a theorist who predicted the remnant of the big bang in the form of microwave radiation.

Gruber, a scholar of Buddhism who spent his childhood in India, has joined the ranks of philanthropists fascinated with the relationship of theology and science—such as Sir John Templeton, whose foundation is devoted to furthering "spiritual progress" through science. In fact, the Gruber awards are to be presented next November at a Templeton-sponsored conference at the Vatican.

The International Astronomical Union (IAU) agreed last week to help out with the administration of future Gruber prizes and will provide three experts to an expanded advisory board. "The arrangement will be purely scientific," says Johannes Andersen, the IAU's general secretary. This view may be at odds with Gruber's original "broad-based" vision for the prize, which includes "scientific philosophers" among potential awardees, admits board member Owen Gingerich of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts. "The winner does not necessarily have to be a technical astronomer," Gingerich says. But he is "not sure the IAU would be as happy giving it to poets and philosophers."

Tragedy at an Indonesian volcano last month reminded the world that tinkering with volcanoes is serious business. On 27 July a party of scientists took in the sights of Semeru, Java's tallest volcano, after a conference. When the party was within meters of the crater rim, however, the mountain let loose one of more than 500 explosions recorded that week. Flying rocks killed two researchers from the Volcanological Survey of Indonesia and injured four foreign visitors, one seriously.

The incident rekindled a long-running debate over safety precautions. After three incidents in the early 1990s, in which 12 volcanologists died (*Science*, 16 April 1993, p. 289), a committee of the International

Association of Volcanology and Chemistry of the Earth's Interior looked into the issue. Its 1994 statement recommended that scientists approach active craters only when absolutely necessary, that large groups avoid hazardous areas, and that everyone wear hard hats and protective clothing.

There were no hard hats on the visit to Semeru, according to participants. Lee Siebert of the Smithsonian Institution in Washington, D.C., one of the injured, said the decision to approach the active crater only "evolved" after a 2-day climb to the summit.

## Volcano Blast Takes Toll



Indonesia's Semeru volcano is an unpredictable killer.

Anglers have long noted that hatchery-raised trout and salmon don't seem very bright compared with their wild kin. Now scientists report that captive-bred trout have smaller brains.

In research presented earlier this month at the annual meeting of the Ecological Society of America in Snowbird, Utah, ecologist Michael Marchetti and neurobiologist Gabrielle Nevitt of the University of California, Davis, found that wild trout brains outscored those of hatchery fish on seven of eight

## Dull Trout

anatomical measures. For instance, the telencephalon—the fishy equivalent of the cortex—was larger, as was the olfactory bulb.

Marchetti suspects that the difference is due to environmental factors. Whereas domestic fish are raised in austere environments, their wild cousins must contend with everything from predators to unpredictable edibles. "There's a lot of implications of this work for captive rearing," he says, because restocking depleted streams with unfit hatchery fish could be bad for wild populations.