

## Curbing Tower Kill

The crystal-clear images you're enjoying on your new digital TV may come with hidden costs, scientists say: the lives of thousands of migratory birds that each spring slam into new communications megatowers constructed to transmit these TV signals.

To comply with federal regulations that require digital TV broadcasts nationwide by 2003, television stations across the country will be building an estimated 1000 new giant communications towers. Ornithologists warn that the megatowers, which can be up to 400 meters high, will add to the already alarming tolls on bird populations. The annual casualty rate for birds smacking into towers in the United States ranges somewhere between 4 million and 40 million, according to Fish and

Wildlife Service (FWS) biologist Al Manville. The number of towers over 60 meters—now about 45,000—is expected to double within a decade. Most of the carnage occurs during spring and fall migrations, especially at night



Collision victims.

under foggy or cloudy conditions when birds head for the brightest object they can see.

Last fall, the FWS issued vol-

untary guidelines for the construction of bird-friendly towers including height limitations, lack of supporting guy wires, and white, infrequently flashing lights that are least attractive to birds. The agency also says it will invoke the full force of the 1918 Migratory Bird Treaty Act, which prohibits tampering with migratory birds.

Experts stress that understanding of the lighting conditions that attract birds is key to reducing mortalities. Bill Evans, an ornithological activist (see [www.towerkill.com](http://www.towerkill.com)) in Ithaca, New York, says, "If we could find a safer flash rate to put on these towers, we could save 3 million to 4 million birds a year."

## New Suit for Japanese Institute

Japan's National Institute of Infectious Diseases (NIID) is in hot water again with its neighbors, this time because it has rapped the knuckles of a dissenting staff scientist.

NIID has been fighting a 13-year legal battle with a citizens' group that claims its location and lax safety measures for handling

dengue virus, hantavirus, and other pathogens pose a threat to the densely packed Tokyo neighborhood (*Science*, 9 October 1998, p. 213). The institute says its safety measures meet or exceed U.S. standards.

Throughout the battle, Hideo Arai, an NIID senior researcher, has supported the citizens' group and testified in court that NIID's safety procedures are deficient. Last October, he published *As a Scientist*, a book detailing the experience. That prompted the institute to slap Arai with an official warning about his conduct and dock a token percentage of his annual bonus. Arai claims these actions are a violation of his right to free speech and has sued to have the warning removed from his record and to get his bonus plus penalties.

"If this kind of arbitrary punishment is not opposed, scientists will be even more reluctant to speak up in the future," says Arai. A spokesperson for NIID, which says Arai has "stained the honor" of the institute with unsupportable allegations, says the institute is within the legal boundaries for dealing with national employees. The first hearing in the case takes place 16 March.

Meanwhile, a grassroots group has sprung up to support Arai, launching a letter-writing campaign and even planning a classical music benefit concert to raise money for his legal fees.

## Fonda Supports Women at Harvard

Harvard is becoming a hotbed of women's studies, if it isn't already. On 2 March it announced that Jane Fonda is donating \$12.5 million for a Harvard Center on Gender and Education. Fonda said the gift was inspired by reading *In a Different Voice*, the 1982 book by Harvard psychologist Carol Gilligan on females' moral and personal development. "We still have a culture that teaches girls and boys a distorted view of what it takes to be women and men," Fonda said in a statement.

The gift

includes

\$2.5 million

for an endowed professorship named after Gilligan, who will move to New York University next year. Fellow education researcher Howard Gardner notes that last year Radcliffe College was reincarnated as Harvard's Radcliffe Institute for Advanced Study on women's issues. "The co-occurrence of these two events within a year means that Harvard is most likely to become pre-eminent in this field of study," he notes.



Gilligan fan.

Lake Chad, a giant freshwater lake at the intersection of four countries on the edge of the Sahara desert, has undergone dramatic shrinkage in the past 40 years. In the mid-1960s, the lake would swell during the wet season to 25,000 square kilometers—larger

## African Lake Drying Up

than the state of Vermont. Satellite pictures show it has now shrunk by 95% to 1350 sq. km. Researchers have conventionally fingered as the culprit the drought plaguing the Sahel for the past 3 decades. But a new analysis by scientists at the University of Wisconsin, Madison, which combines computer models for climate and agriculture, suggests that human reaction to the drought has played an equal part. Irrigation increased fourfold just between 1983 and 1994, report hydrologist Michael Coe and ecologist Jonathan Foley in the 27 February *Journal of Geophysical Research*. Foley says the lake "responds quickly to fluctuations" in rainfall and irrigation. But given the likely population growth in the region, "unless something surprising happens, the lake is not likely to recover."

1973



1997

