

## ... Letters

### Environmental footnote

I would just like to add a footnote to your report "Revising the record of island birds" (SN: 8/14/82, p. 103). By far the bulk of the data for the Olson and James report in SCIENCE came from recent archaeological excavations at Barbers Point, Oahu. The Barbers Point area is a coral plain with hundreds of small sinkholes containing rich bird bone deposits. Several hundred acres of this sinkhole area are currently being destroyed by the construction of a major harbor. The rest of the area is soon to be destroyed by the expansion of the existing industrial park. This is like paving over Dinosaur National Monument. The final EIS [environmental impact statement] for the harbor project doesn't even mention these significant bird bone deposits. The supplement to the final EIS mentions the bones, but just barely. The scientific community has been shortchanged by this pork barrel harbor project that the National Wildlife Federation listed as one of the ten most wasteful water projects in the United States. Plenty of money for a harbor we don't need, no money for the bones of extinct, endemic Hawaiian birds. That's the rest of the story.

Earl Neller  
Honolulu, Hawaii

### Fission confusion

The article "Verdict: U.S. Deceived Court in Fallout Case" (SN: 8/14/82, p. 100) contains the startling statement that 252 kilotons of fission products were "spewed into the atmosphere as fallout" by the atomic bomb testing project Upshot-Knothole. I don't believe it.

It appears to me that you are confusing *yield*, which is the weight of TNT that would be required to produce the same energy release, with the actual weight of the device and its associated fission products. This is something else altogether and orders of magnitude less. To release 252 kilotons of fission products would take 252 kilotons of uranium-235 or plutonium, which is, I believe, more than that which could be used by only 11 devices, which for practical reasons have to be light enough to transport. This is a rather simple, unrealistic mistake that should never be made in any science publication.

Weight of fission products is a useless datum anyway. The proper units to use are curies (or becquerels) specifying each isotope. Weight, per se, is meaningless.

William G. Nabor  
Irvine, Calif.

(The number, as Nabor suggests, is incorrect. But SCIENCE NEWS did not invent it. The figure, in fact, comes from Judge A. Sherman Christensen's Aug. 4 decision in *Bullock et al. v. The United States (the sheep decision)* under the heading *Findings of Fact. Specifically, it claims that, "during the 'Upshot-Knothole' multishot experiment of 11 atmospheric nuclear tests conducted between March 17 and June 4, 1953, at the Nevada Test Site, 252 kilotons of nuclear fission products were emitted as radioactive fallout."*

According to the Defense Nuclear Agency, the judge indeed erred by confusing the weapons' total TNT-equivalent yield with the weight of the fission products. "So he [Nabor] was right," a DNA official told SN, "but we can't tell you what the right weight [of the fission products] was," because that figure is classified. The DNA official also pointed out that 45 percent of the 252-kiloton yield represented air bursts. Fission products from those detonations were spewed so high that they "typically didn't come down locally as fallout," he said, but instead scattered globally—Ed.)

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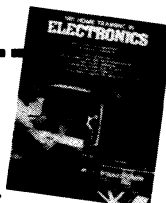
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