

considered. Many species of wildlife in Africa find that habitat loss is their most serious threat as human populations expand. But First World views on conservation are seen as impractical luxuries by rural Africans whose crops and lives may be endangered by animals such as elephants.

Further complicating the issue is the fact that in Zimbabwe the accuracy of the elephant census is still not accepted by all local biologists—there may well be far fewer animals than the government statistics indicate. And because of a CITES decision that allows trade in elephant products, the reported cases of poaching in the Zambezi Valley have increased dramatically. Perhaps this is not the best time to institute a culling policy, implemented as much in the name of greed as in conservation.

J. HAWKWOOD
Harare, Zimbabwe

DOOMED TO A DEEP FREEZE?

I read with fascination "Snowball Earth," by Paul F. Hoffman and Daniel P. Schrag. After learning that Earth was rescued from the global ice age because volcanoes resupplied the atmosphere with carbon dioxide, which warmed the frozen planet, I began to speculate on the future. Eventually the radioactive fuel that drives such tectonic activity will be depleted, and Earth will become tectonically dead. Without mountain building, volcanism or seafloor spreading, no more CO₂ will be pumped into the atmosphere. Meanwhile the meteoric cycle will continue to scrub CO₂ from the atmosphere. Is it possible that the ultimate fate of life on Earth is an icy tomb?

MICHAEL A. DAVIES
via e-mail

Hoffman and Schrag reply:

Davies's scenario describes exactly what many scientists believe already happened on Mars. The planetary midget (only about one tenth of Earth's mass) cooled so fast that its CO₂-rich atmosphere was transformed to carbonate rock long ago, but Earth's fate will be more like the runaway greenhouse of Venus. The sun gets hotter all the time, and Earth adjusts by lowering levels of carbon dioxide through the weathering of silicate rocks. When all the CO₂ is used up, this thermostat will fail, and a Venus-like hellfire will ensue.

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