

Extinctions

Editors Note: *Harvard Magazine* in its January-February issue, 1980, asked "What is the most important problem facing this nation or the world at the start of the decade and what resolutions should we be making to deal with it?" The following reply came from E.O. Wilson, author of *Sociobiology* and other monumental works of scientific research:

"Permit me to rephrase the question as follows: What event likely to occur in the 1980s will our descendants most regret, even those living a thousand years from now? My opinion is not convention, although I wish it were. The worst thing that can happen – will happen – is not energy depletion, economic collapse, limited nuclear war, or conquest by a totalitarian government. As terrible as these catastrophes would be for us, they can be repaired within a few generations. The one process ongoing in the 1980s that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us.

"Species extinction is now accelerating and will reach ruinous proportions during the next 20 years. No one is sure of the number of living species of plants and animals, including such smaller forms as mosses, insects, and minnows, but estimates range between five and ten million. A conservative estimate of the current extinction rate is one thousand species a year, mostly due to the accelerating destruction of tropical forests and other key habitats. By the late 1980s the figure could easily rise to 10,000 species a year (one species per hour) and it is expected to accelerate fur-

ther through the 1990s. During the next 30 years, fully 1 million species could be erased. The current rate is already by far the greatest in recent geological history; it is vastly higher than the rate of production of new species by natural evolution. Furthermore, many unique forms that emerged slowly over millions of years will disappear. In our own lifetime humanity will suffer an incomparable loss in aesthetic value, practical benefit from biological research, and worldwide environmental stability. Deep mines of biological diversity will have been dug out and discarded carelessly and incidentally in the course of environmental exploitation without our even knowing fully what they contained.

"This impoverishment cannot be halted during the 1980s, but it can be slowed. We need to shift the emphasis of conservation from the temperate zone to the tropics, from the preservation of isolated star species, such as the harpy eagle and Indian white rhinoceros, to the entire ecosystems in which they live. A more powerful, global conservation ethic should be cultivated. The endemic plants and animals of each nation should be treated by its citizens as part of their heritage, as precious as their art and history. When national leaders such as former president Daniel Obudor Quiros of Costa Rica have the courage to advance the preservation of ecosystems within their domains, they should be accorded international honors up to and including the Nobel Peace Prize, in recognition of the very great contributions they make, not just to their own generation but to generations as far into the future as it is possible to imagine."