

Easter Island's Warning

Modern man is following in the steps of a vanished civilization that once inhabited Easter Island, a remote island in the Pacific Ocean that is 2,000 miles from the continent of South America.

A Dutch explorer who visited the island in 1722 found hundreds of mysterious giant stone statues, as well as an environment that had



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Hundreds of mysterious giant stone statues were found on Easter Island.

collapsed. "Its wasted appearance would give no other impression that of a singular poverty and barrenness," wrote the explorer. There were no trees or bushes taller than 10 feet and no native animals larger than insects.

In contrast, when the island was first colonized by Polynesians in the year 1000 AD, it was a paradise with fertile soil, an abundance of good food and

plentiful building materials, according to pollen analysts, paleontologists and archeologists. What happened?

Two centuries after the arrival of the Polynesians, they began cutting the forest faster than it could regenerate as they made fires, built homes, made canoes, cleared land for gardens, made ropes and built rollers for moving their stone statues. Rats contributed to forest decline by gnawing the palm nuts.

The resulting decline in forests meant that bird populations plummeted as they lost habitat, which resulted in inadequate dispersal of seeds and reduced pollination of the island's flora. As a result, there were fewer and smaller trees and reduced crop yields.

The island's vegetation was also retarded by a loss of soil fertility as the forests were destroyed. For without forest cover to protect the soil from the searing sun, slow down windspeeds and hold soil in place, the fertile soil washed away.

Furthermore, without forests to capture rainwater and bring water upward to be released from the leaves of trees, the springs and streams dried up. Also, wood was no longer available for fires or to build canoes they used to capture porpoises and deep sea fish. Hungry, they began eating each other and erupted into a state of war.

If the Easter Islanders were able to ravage their environment with simple stone tools, how much more efficiently can modern civilizations do so with chain saws and huge feller bunchers, which are huge shears that roll along the ground severing trees. Whole ecosystems are being destroyed in a day.

One-third of the forests that existed in the world in 1950 have been cut without being replaced," said Dr. Peter Raven, president of the Missouri Botanical Gardens and a member of the National Academy of Sciences.

As forests decline, habitats for birds are dwindling, just as happened on Easter Island. The global number of individual birds has declined 20-25 percent, due not only to habitat loss but also disease, climate change, invasive species, the capture of birds for pets and bird hunting, according to a paper published in the Proceedings of the National Academy of Sciences written by Paul Ehrlich, Cagan Sekercioglu and Gretchen Daily.

Approximately 14 percent of bird species will be extinct in 2100, say these researchers. Moreover, they predict that the range and populations of one-fourth of bird species will be so reduced that they will "no longer contribute to ecosystem health."

Can we co-exist with the forests and birds that sustain us?