## **REQUIEM FOR NATURE**

If tropical nature is to be conserved at all, says conservation biologist John Terborgh in "Requiem for Nature" (2004), it must be in spite of tropical countries' poverty, corruption, abuse of power, political instability and frenzied rush for quick riches. The biggest threats to biodiversity are human overpopulation, inequities of power and wealth, and exhaustion of natural resources.

The basic question is, how much habitat shall we allow for wild nature, and how much for humans? As of the late 1990's the ratio was 5 percent for wild nature, and 95 percent for humans. In 1996 just 3.7 percent of the earth's area was designated as parkland. In 30-50 years, Terborgh predicts, if we maintain the status quo, all remaining wild tropical nature outside parks will be gone.

So parks are our only hope, if nature is to survive the 21<sup>st</sup> century. Yet most tropical parks are "a sorry lot," not big enough for essential top predators, or poorly designed and hence indefensible. Some exist only on paper; some already have humans living within them, suffer degradation from illegal activity, or no longer exist in a biological sense – "lonely islands in a human-dominated landscape."

Take Manu Park, in the Peruvian Andes, which Terborgh spent years studying. Richest of all parks in biodiversity of birds,

mammals, reptiles, amphibians, trees and butterflies, by 1998 it was relatively stable – rescued from rubber barons, loggers and missionaries, and from tropical parks' usual threats – poaching, mining, squatters, livestock browsing, timber cutting. For 25 years Terborgh and his colleagues viewed wildlife (jaguars, pumas, ocelots, giant anteaters and others) which had no fear of humans.

But now indigenous people's numbers within the park are growing apace. Terborgh predicts they'll soon have chainsaws and guns, and wildlife will be fearless no more. These indigenous groups, Terborgh predicts, will fill the park pretty quickly, and that will spell its end as a tropical wildlife refuge.

So here's what we're faced with: earth's current (circa 2000) species list consists of 9,600 birds, 6,000 mammals, 4,000 reptiles, 4,000 amphibians, 24,000 fish, 250,000 seed plants and ferns, and countless lesser organisms. If the human population doubles by 2050 (say, to 12 billion people) we'll consume 80 percent of earth's productivity (its annual plant growth), leaving 20 percent for all other creatures.

Yet available acreage for grain worldwide peaked in 1981, and grazing land in 1990. Even now there are not enough fish to feed us. Cattle production has peaked, demand for wood products is increasing, nearly all arable land is in use, dams and diversions have altered 77 percent of the water in the 139

largest rivers of North America, Europe and northern Asia, and aquifers are everywhere overdrawn.

And since there are an estimated 500 million folks practicing subsistence agriculture, they're going to occupy any land available, including the last of the wild tropics.

Yet, even if it were possible, how could conservationists (or governments) justify denying people land to grow food on? Since for indigenous people – or hungry squatters – wildlands represent opportunities for survival.

And as Terborgh remarks, when third world leaders envision the future, they see Chicagos and Iowa corn fields, not Yellowstone Parks.

So if we're to have parks, our only hope for conserving tropical nature, rich countries must pay for them and maintain them, and invest wisely, only in countries where parks have a reasonable chance of surviving intact.

We need a UN conservation organization, UN nature keepers, an international corps of elite park rangers, a Nature Corps like the Peace Corps and a global environmental watchdog association like Amnesty International.

Finally, though, Terborgh says, conservation must be esthetic and spiritual, welling up from our deepest beings in response to unforgettable experiences in wild nature.