

# Primates in Fragments

ECOLOGY AND CONSERVATION



*Edited by*

Laura K. Marsh

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## FOREWORD: PRIMATES AS ICONS FOR CONSERVATION

William F. Laurance

I'm not a primatologist, but in my career I've been dazzled by many primates in the wild, from orangutans and gibbons in Borneo to white-faced sakis and spider monkeys in Central America and the Amazon. I've been equally intrigued by their ecological analogs—the possums, cuscuses, and tree-kangaroos—that I've studied in the rain forests of Australia and New Guinea.

I'm not alone, of course. The apes, monkeys, and lemurs—our closest living relatives in the world—hold a special magic for most people, perhaps rivaled only by whales and dolphins in their ability to capture the popular imagination. In the 1980s, the World Wildlife Fund discovered that the public was far more strongly galvanized by exhortations to “Save the Primates!” than “Save the Rain Forests!” despite the fact that these goals overlap considerably.

Primates are icons for conservation because we identify with them, empathize with them, and feel for their plight. And so many primates are direly threatened. Of 600 primate species in the world, fully a fifth are seriously endangered, and half of those are at imminent risk of extinction.

Primates are imperiled by the same forces that threaten much of the world's biodiversity—habitat destruction and fragmentation, logging and fires, and over hunting. They are icons for conservation because they reside in many of the world's most megadiverse regions. Of the 25 most gravely endangered primate species in the world, 24 are found exclusively in recognized “biodiversity hotspots”—regions such as Madagascar, Indochina, Sundaland (Borneo, Java, Sumatra), Brazil's Atlantic forest, and the Guinean forests of West Africa that sustain a disproportionate fraction of the world's biological diversity and have been ravaged by human activities. To conserve viable populations of wild primates is to protect many of the world's most critically endangered ecosystems.

Primates are icons for conservation because they play vital roles in ecosystem structure and functioning. They disperse fruits and seeds; play integral roles in food webs as consumers of insects, fruits, and foliage and as prey for mammalian carnivores,

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Smithsonian Tropical Research Institute, Apartado 2072, Balboa, Republic of Panamá, and Biological Dynamics of Forest Fragments Project, National Institute for Amazonian Research (INPA), Manaus, AM 69011-970, Brazil. Correspondence to W. Laurance (email: laurancew@tivolli.si.edu).

snakes, and raptors; and participate in a diverse array of coevolved relationships with other species (in the Amazon, for example, certain dung beetles rely exclusively on the droppings of howler monkeys, and, in burying the seed-rich dung to feed their larvae, greatly increase the germination and survival of some plant species). A forest that has lost its primates is an unhealthy, dysfunctional forest.

For these and many other reasons, primates are special, and this book is a timely and impressively comprehensive effort to describe the myriad impacts of habitat fragmentation on their survival, population dynamics, genetic structure, ecological interactions, biogeography, and behavior. It is an unquestionably important contribution, following upon earlier books such as *Tropical Forest Remnants* (Laurance and Bierregaard, 1997) and *Lessons from Amazonia: Ecology and Conservation of a Fragmented Forest* (Bierregaard et al., 2001) that provide more general insights into the ecological consequences of habitat fragmentation.

Primates are icons for conservation because, throughout much of the world, their formerly intact habitats are in desperate retreat. These captivating and intelligent creatures are figureheads for conservation—as they should be—and our success or failure in conserving their rapidly dwindling populations may presage the fate of much of the natural world.

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