

No “Dear John Letter” Here—These Guys Are Committed to Saving the African Jungles

Editor’s Note: In this issue of *The Paper Trail*, two guys with the same first name are passionate about the ecology of African jungles. They have spent a lifetime investigating and understanding the intricacies of the many different interactions within tropical forest systems. What might seem to some as overwhelming has been an inspiration to both. But, commitment requires dedication and the work these guys are doing is not for the faint of heart. The future is on their minds, too. The arising researcher’s studies are to help preserve the wonders for generations to come, while his established colleague is now filling the role his mentors did for him so many years ago.

—Stephen L. Young

The Arising Researcher

The moments that define us do not always have to be graceful, or maybe they seldom are. Having grown up under the big skies and towering peaks of Montana, I did not expect a career working in the dense forests of Central Africa. But, returning excitedly from my first jaunt through tropical forest as a research assistant in Cameroon, I proudly exclaimed “I saw a monkey.” “What type of monkey,” asked the lead researcher. “A black one!”, I responded to no small amount of snickering. It did not matter, though, from my first step onto its red soil, the beauty, diversity, and mystery of the forest enamored me.

By the time I encountered the tropical forests in the mid-1990s, they were already being robbed of their pristineness. Logging roads cut through the verdure, staining the vegetation with mud and dust. Having lived in African villages, I was well acquainted with the bushmeat that hung along roads and piled up at markets, and wanted to

know how the depletion of animals would affect the forest as a whole. I knew then that I would not be a scientist that would hole up in a national park—my interest lied in quantifying the effects of anthropogenic disturbance of tropical forests, their cascading effects on ecological processes, and developing strategies to conserve functioning ecosystems.

With a conviction to “do something,” I moved between conservation research and management. I managed projects in Congo, including a community reserve and a public–private partnership for conservation. These projects were successful, but I felt uneasy because decisions were often made in the absence of data. It was around this time that I read “Ecological Meltdown in Predator-Free Forest Fragments” (Terborgh et al., 2001, *Science* 294:1923–1926). Using a set of predator-free islands created by a hydrological impoundment in Venezuela, John Terborgh and his colleagues demonstrated that without top-down regulation by predators, herbivore abundances had exploded, nearly denuding



John Poulsen measures tropical tree seedlings in the Republic of Congo. Photo credit: Connie Clark.

the islands of vegetation, particularly seedlings and saplings of canopy trees.

John's study was remarkable for three reasons. First, he took advantage of a one-time event to conduct a large-scale, natural experiment that otherwise would have been impossible to implement. Second, he demonstrated the dramatic ecological effects of removing an entire level of the trophic chain. Third, his results were applicable to the real world—a village chief or a logging company executive would get it without detailed explanation.

The number of crises in the tropics seems to be increasing daily—bushmeat hunting, elephant loss, ivory trade, explosion of poaching—with rigorous data and innovative approaches needed to find solutions. Through his work, John shed much light on trophic cascades and raised even more

questions. I hope to help answer these questions in advancing ecology and the conservation of tropical ecosystems, so that the global ecosystem services they provide will be maintained along with the many wonders for future generations of scientists and all of earth's residents to enjoy.

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