

CONSERVATION

The Eighth Continent: Life, Death, and Discovery in the Lost World of Madagascar. By Peter Tyson. 2000. Wm. Morrow (10 East 53rd St., New York, NY 10022) 374 pp. Hardback \$27.50.

 A fragment of Gondwanaland persists as the world's fourth largest island separated from the east coast of Africa by the Mozambique Channel. Isolated from other land masses for more than 160 million years, this relic of ancient times is referred to as "The Eighth Continent" because of its uniquely endemic flora and fauna which evolved in isolation from the rest of the world. One of the top megadiversity countries in our world, like other identified biodiverse regions, Madagascar is currently threatened with species loss and eventual endemic extinction.

Among the endemic animals, there are 33 species of lemurs that are 100% endemic to the island. However, recent extinctions occurring within the two millennia since man made contact with the land, include the giant lemurs, the elephant birds and the pygmy hippopotamus, among others. The island carries none of Africa's famed lions, monkeys, poisonous snakes, elephants, etc.; these animals evolved too late to have been able to float over the widening divide between the land masses about 40 million years ago. Thus the island allows a trip back in time and "provides a glimpse of the world as it looked during the age of the dinosaurs."

The problems of poverty, overpopulation and malnutrition plague the richly diverse but sorely underdeveloped regions of our world. Madagascar has political instability, economic difficulties, ethnic questions, and other problems. Conservationists yearn to preserve the remaining patches of forests that house the singular species of endemic plants and animals, and these practices conflict with the natives' need to slash and burn for land to grow their food staples to support life. Thus Peter Tyson takes us on a tour of this land of prehistoric time to show the conflicting concerns of the ecologists and the natives.

Divided into five sections, the first part deals with the isolation and evolution of the indigenous plant and animal species. It includes fascinating questions about how the island's extraordinary animals such as the spiny tenrec (shrew-like animal) and

plants like the octopus tree arose. Working with a herpetologist, the author collects various exotic and unlisted lizards and snakes. The following section continues to describe the magnificent biodiversity and endemism of these wildly speciated forms.

The third section delves into the enigma of recent extinctions and the question of what caused every native animal weighing more than 25 pounds, such as the elephant birds, a pigmy hippopotamus, and a number of giant lemurs, to become extinct within the past 2000 years. Man is a suspect in this ongoing mystery.

Any study of Madagascar must include a description of its unique culture. Two questions that are confronted in the fourth part is why Madagascar remained apparently uninhabited until the time of Christ and why the Indonesian aspects of culture and language predominate. The book concludes with thoughts of how to preserve the small sections of this island that still retain its rich biodiversity. A profile of Ranomafana National Park and the efforts of the conservationists, made up of foreign imports and natives, are described. Again the frustrating problem that must be resolved is how to convince a destitute native land-poor population primarily concerned with survival to appreciate and preserve its abstract exotic wealth when malnutrition and poverty govern its existence.

Peter Tyson serves as a guide through this fascinating lost world and the reader accompanies him with naturalists and ecologists studying its diversity. He is sensitive to the many problems facing the biologists and the natives, and tries to bring out all sides of the dilemma of trying to preserve biodiversity and still meet the needs of the residents. It is a conundrum that must be seriously considered if we are to study the evolving life forms of our planet before they disappear through induced extinction caused by habitat loss.

There are sufficient adventures within this tour through Madagascar to fascinate the teenager, and engrossing historical background along with outstanding naturalist research accounts to engage the professional. The story is tied together by the author's 'quirky' sense of humor, but then it is his story and the meat is all there.

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