

The Tropical Rain Forest

An Introduction

Tropical forests covered much of the world millions of years ago. Climatic changes currently limit this biome to about six percent of the Earth's land surface. Most of the rain forests are now located on or near the equator. Rain forests are found in South America, Africa, New Guinea, Malaysia, Burma, and Indonesia.

As the name implies, it rains a lot in these forests—almost every day in fact. The temperature is usually in the 80s (Fahrenheit), and so is the relative humidity. At least 203 centimeters (80 inches) of rain falls each year, and some areas receive as much as 381 centimeters (150 inches).

The moist conditions and constant heat provide for a great growing environment. Scientists think that 50 percent of all the species in the world are found in the rain forest. A single acre of rain forest may have more species of trees than are found in most states of the U.S. These trees must compete for growing space and available sunlight. Most of the trees grow rapidly to great heights and spread to form a dense crown of branches and leaves. Only about one percent of available sunlight reaches the rain forest floor. Many of the insects, birds, and other animals live up in the canopy and have adapted for life at these heights.

In North America we are a long way from the tropical rain forest. Sometimes we think that that particular biome, while interesting, is of no particular importance to us. However, we need to look at the world as one big ecosystem to see how important the tropical rain forests really are.

A tremendous amount of plant material lives in this biome. These plants carry on photosynthesis and respiration—processes that include the absorption of carbon dioxide and the release of oxygen. We, of course, require air rich in oxygen to live. The plants also release large amounts of moisture into the air in a process called transpiration. The trees of the rain forest tie up lots of carbon, as well.

What happens when a rain forest is cut down or burned? The air becomes hotter and dryer. The release of carbon during the burning process increases carbon dioxide in the air, which can help create even warmer temperatures. Plants of the tropical rain forest that have medicinal and nutritive value are lost, and many North American birds no longer have a winter home. Some scientists believe the destruction of the rain forest could cause a melting of the polar ice caps and the flooding of coastal cities.

So, you see, all the world is tied together. The tropical rain forest, 2,000 miles away, is indeed important to us in North America.



Name _____ Date _____

For the student:

1. Where are most of the tropical rain forests located?

2. Why do you think this biome is called the tropical RAIN forest?

3. Why does only about one percent of the available sunlight reach the forest floor?

4. What are three ways that the trees of the rain forest help the global environment?

5. Why would North American birds have homes in the tropical rain forest?
