The Amazon Rainforest

by Elizabeth Thuernagle

THE GOOD AND THE BEAUTIFUL LIBRARY

The Amazon Rainforest

Come with me on a journey through one of the most exotic places on Earth—the Amazon Rainforest. Things that may seem unusual where you live are actually quite normal here.

Fish fly out of the water to catch their meals.

Jaguars impressively paddle across streams.

Playful pink dolphins poke out of the rivers.

Birds with vibrant plumage soar overhead.

Thumb-sized, brightly colored frogs peek out from under logs and leaves.

From the bottom to the tip-tops of the tallest trees, the dense jungle of the Amazon is a battle zone for survival. Animals compete for food and a mate. Plants have bizarre yet beautiful features that allow them to thrive.

The hot, humid air feels steamy—like you just stepped out of a hot shower. It is December, and the smell of an approaching storm signals the beginning of the rainy season. This can last months, so put on your raincoat and rain boots before we move on.

The Amazon Rainforest is massive—about the size of the continental United States. It is shared by nine South American countries: Brazil, Peru, Colombia, Bolivia, Venezuela, Ecuador, Guyana, Suriname, and French Guiana. It spans from the Andes Mountains on the west all the way to the Atlantic Ocean on the east.

A rainforest needs three important things: rain, soil, and sunlight. The Amazon receives plenty of those things. The Amazon Rainforest is between the two tropics: the Tropic of Capricorn and the Tropic of Cancer. This makes the Amazon a tropical rainforest.

Amazing Facts of the Amazon

Size: About 6 million sq km (2.3 million sq mi)

Annual Precipitation: 3,048–10,150 mm (120–400 in)

Creatures of the Amazon

Plants: at least 40,000 species

Mammals: more than 400 species

Birds: about 1,300 species

Reptiles: more than 300 species

Amphibians: more than 400 species

Freshwater fish: about 3,000 species

species (n.)

Animals of different types are called different **species**. For example, a hawk and a parakeet are different species of birds.

DID YOU KNOW?

The Amazon River pumps out 208 million L (55 million gal) of water into the Atlantic Ocean every second!

Tropical rainforests only cover about 6% of the earth, but they provide homes for more than half of the plant and animal species in the world. Life-giving rain creates a rich habitat for millions of plants, animals, and other wildlife—some of which are very rare.

Where does all this water come from? Running through the Amazon Rainforest toward the Atlantic Ocean is the shimmering Amazon River. If you could swim from one end of the river to the other, you would travel about 6,400 km (4,000 mi). That is exactly what a man named Martin Strel did. It took him sixty-six days! Once you reach the Atlantic Ocean, you would be surprised to discover that a large amount of this fresh river water continues to flow into the ocean. You could even swim another 200 km (125 mi) into the Atlantic Ocean before you would reach saltwater.

DID YOU KNOW?

Early sailors traveling through the Atlantic Ocean to the Amazon could drink fresh water before they even reached land!

Where does the Amazon River get all this water from? It is fed by more than 1,100 tributaries that flow into it! These smaller rivers and streams receive water as snow melts from the nearby Andes Mountains. With this large supply of water, the Amazon Rainforest is self-sustaining. This means it can take care of itself as the water provides for all life in the rainforest.

Water within the leaves of the Amazonian plants transpires (leaves the plants as water vapor) and collects as low-level misty clouds. This vaporized water, in addition to water that collects in clouds through evaporation, eventually falls back to the earth as rain—giving and receiving water all within the Amazon.

Where does the largest rainforest (the Amazon) get fresh soil? This answer may surprise you—all the way from the Sahara Desert on the continent of Africa! As Saharan sand blows across the Atlantic, it drops in the Amazon, adding fresh nutrients to the soil.

Plants produce enough oxygen to support life in the rainforest, and there is enough plant and animal life to be consumed as food to support all plant and animal life, thus making the Amazon a self-sustaining ecosystem.

Clouds form above the Amazon River Basin through evaporation and transpiration.

Amazonian Seasons

The Amazon doesn't have the four seasons of fall, winter, spring, and summer. Instead, it has two seasons—rainy and dry. During the months of the rainy season, clouds release huge amounts of rain. In addition, water from the melting snow in the Andes runs down the mountains into the tributaries, which feed into the Amazon River. The riverbed can't hold all of this water, so it floods. The flood zone of the forest floor becomes completely submerged in water. Land-dwelling animals scamper up trees and scramble to higher ground for safety. Plants that were once homes for flying and crawling creatures now shelter water animals such as fish.

DID YOU KNOW?

The Amazon can receive 2.5–5 cm (1–2 in) of rainfall within only one hour.

river basin (n.)

The area of land that has tributaries flowing toward the main Amazon River forms a **river basin**.

Families that live in the rainforest build their homes on stilts. When the floods come during the rainy season, their homes stay above the water level.

A silver arowana hovers right below the water's surface and patiently waits. When an unsuspecting insect gets close by, the fish leaps out of the water. Its jump can reach up to 3 m (9.8 ft)! Because of this, the silver arowana has earned the nickname "water monkey."

From above, the Amazon Rainforest may simply look like a sea of trees. However, hidden under the canopy of leaves lays an entire network of plants, insects, mammals, amphibians, reptiles, and other living things. The Amazon is home to the largest rainforest ecosystem in the world. With so much biodiversity, much of the ecology remains unknown. Some creatures native to the Amazon are not found anywhere else in the world, and some are so well hidden they have yet to be discovered.

Clouds over the Amazon

Every species in the rainforest, from the tiny ant to the large jaguar, is important. In order to survive, all forms of life need each other and the water, air, and other resources in their environment. Several food chains form a massive food web.

Creatures within an ecosystem depend on one another and their environment. Brazil nuts are eaten by an agouti (a rodent). Because of their exceptionally strong teeth, they can chew through the tough covering. The nuts provide nutrients for the agouti, and the agouti spreads the seeds of the Brazil nut tree for more to grow.

food chain (n.)

A **food chain** shows what eats what in an ecosystem.

food web (n.)

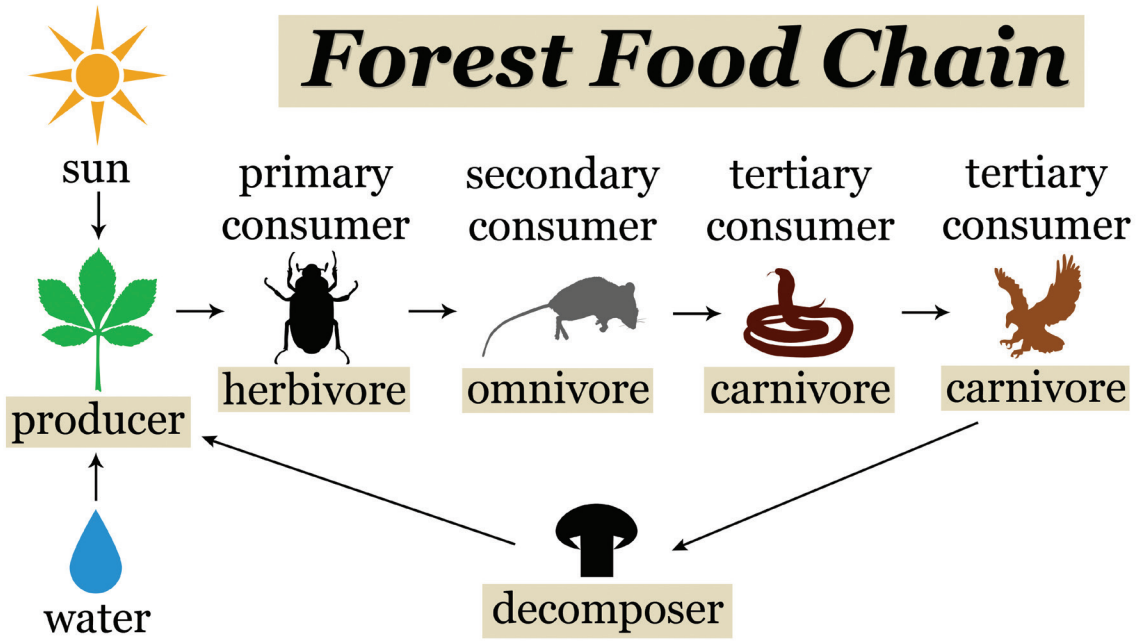
Many food chains together form a **food web**.

A plant's or animal's main role in the ecosystem tells you if its job is a producer, consumer, or decomposer. Grab your magnifying glass and your binoculars, and let's find each of these roles in the rainforest.

Many varieties of plants are all around you. Tall trees reach the heavens while shorter shrubs don't grow very far from the ground. Some leaves are narrow and long, and others are giant and wide. Certain types of plants have large roots that anchor them to the ground, while some types never touch the ground. Instead, they live on the branches of other plants. Regardless of how they look, plants are producers because they "produce" their own food from sunlight. They do this through photosynthesis, a process performed within their leaves to convert sunlight into sugar, which is used for energy.

As you walk through the Amazon, you kick up some dead leaves and twigs. You inspect the ground with your magnifying glass, and you see a colony of termites! These little critters are decomposers and are very important to the rainforest ecosystem. They eat dead plant matter such as leaves and twigs. Their waste replenishes the ground with nutrients for growing plants to use. Termite burrows create tunnels for rainwater to seep through. Without termites and other decomposers, such as ants, worms, millipedes, and bacteria, the rainforest could not survive. It would get littered with dead plants and animals with no way to break them down.

Flying overhead you spot a beautiful toucan. You pull out your binoculars for a better look. This large-beaked bird perches on a sturdy branch. Using its strong beak, it reaches for a fig hanging off the tree. The edges of its beak are serrated like a saw, allowing it to peel open fruit. All consumers, like this toucan, eat plants or other animals. This toucan's favorite foods are fruit and insects.



Multiple food chains within an ecosystem form a food web. Energy is transferred from the producer to the consumer. When producers or consumers die, energy is transferred to the decomposer, which restores nutrients into the ground, which once again helps producers grow.

The Amazon Rainforest

Pack your bags, grab some sturdy clothing, and get ready to venture through the Amazon Rainforest!

There is so much to learn about this tropical ecosystem, from the geography and climate, to the kinds of lush vegetation and fascinating predators and prey who call the rainforest their home. The Amazon Rainforest will take you on a journey of discovery down the Amazon River and up into the treetops filled with clouds.

ORIGINAL PUBLICATION

THE GOOD AND THE BEAUTIFUL
goodandbeautiful.com

$7.99
ISBN 978-1-952920-31-8
50799>
9 781952 920318
SKU 733