

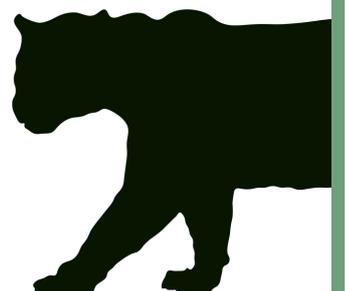


What's in a rainforest?



Information you need to know
about the rainforest and its
amazing inhabitants

Resources for Rainforest in a Box
Closing Date: 15th May 2020

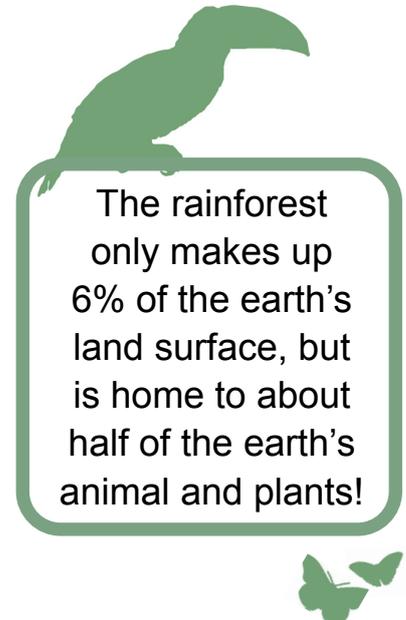


The rainforest

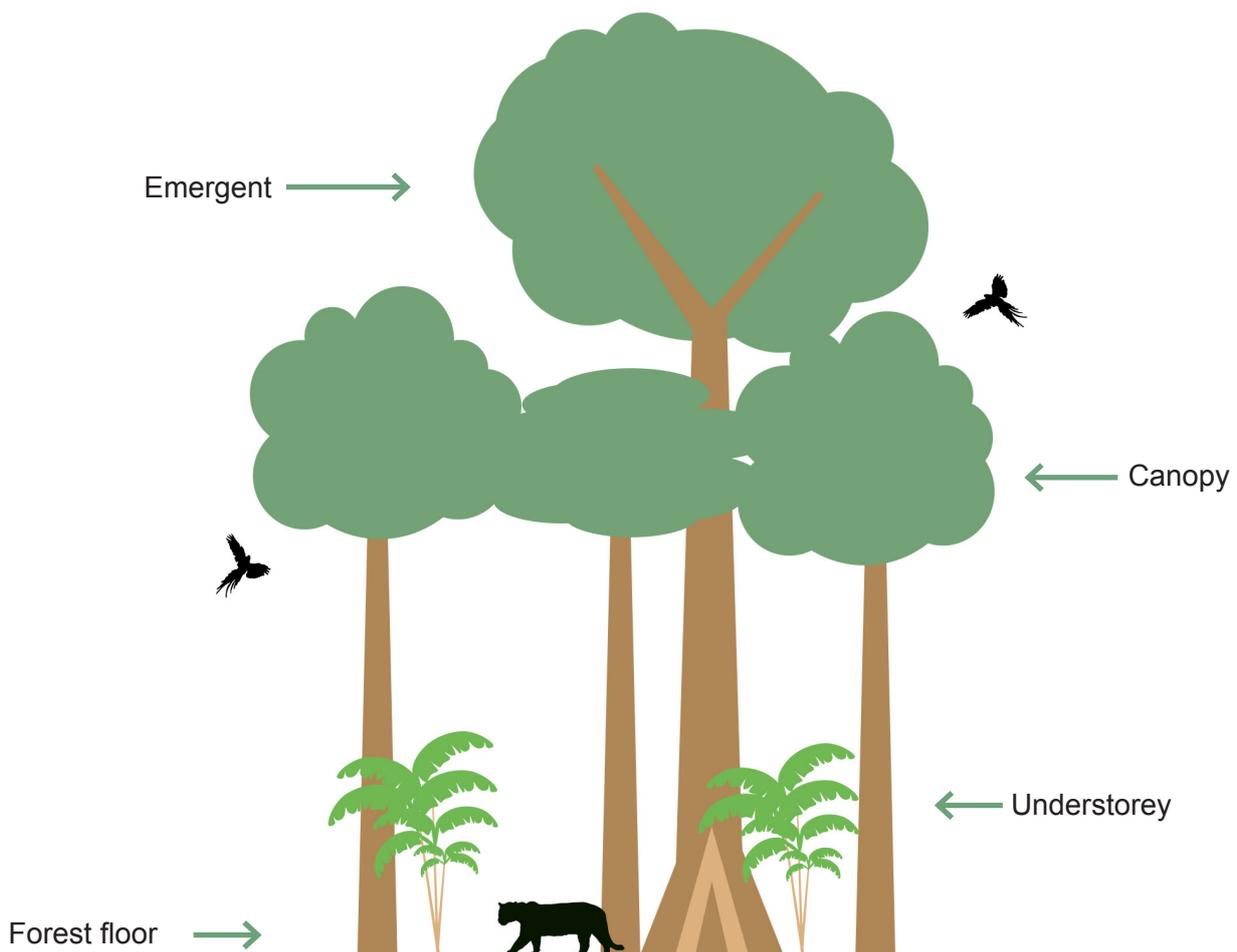
Tropical rainforests grow around the middle of the earth, which is known as the equator. The Amazon Rainforest in South America is the biggest tropical rainforest in the world. It is made up of lots of different countries, including Peru where Plant Your Future works.

Rainforests have an amazing and unique structure. The plants and wildlife that live there have special features that allow them to survive the hot and rainy weather. Did you know there are many more different types of plants, insects and animals living in the rainforest than anywhere else on our planet?

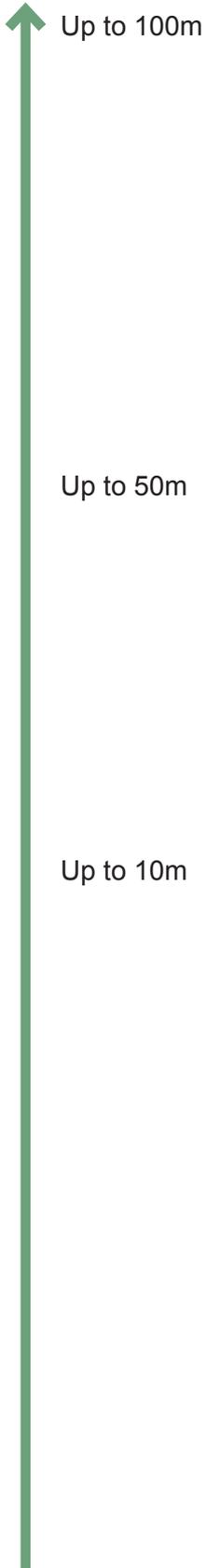
The weather in the rainforest is always hot and humid. So unlike in countries that have a cold winter season (like the UK or Denmark) where trees drop their leaves all at once, the trees in a rainforest stay green and covered in leaves all year round.



Structure A rainforest has **four** layers:



Let's look at those four levels a bit more:



Up to 100m

Emergent

This layer is full of towering trees that are taller than most in the forest. The 'emergent trees' found here poke out of the top above all the others and the average height is around 70-100m from the ground level. That's about as tall as the 'Big Ben' tower in London! Not many mammals live here, but lots of insects and birds, such as Macaws, call this level of the rainforest their home. Birds of prey, such as the harpy eagle, will sit here waiting, looking for their next meal.



Up to 50m

Canopy

This is where most of the action takes place. In the rainforest it is here in the branches of the trees that most of the creatures live (about 60 to 90% in fact). Big trees, that can reach heights of up to 50m, overlap and act as a roof over everything that lives below. Birds and insects that live here are often brightly coloured, like parrots, and you'll also find many mammals including monkeys.



Up to 10m

Understorey

The understorey is much more humid, dark and damp than the layers above it. It is made up of shrubs, palms, ferns, climbing plants and young trees that are used to receiving low sunlight. Plants in the understorey only reach 10m tall, but it's here that you'll find animals such as tree climbing cats (such as the ocelot) and frogs.



Forest floor

Last but not least is the forest floor layer. It is often described as the darkest and most humid layer of a tropical rainforest because less than 2% of the total sunlight reaches it. All the fallen leaves, twigs, branches, fruits, and seeds fall and collect here from the three layers above. It's where large terrestrial animals can be found, like the jaguar that prowls the forest floor.





Adaptations

Plants, animals and insects have special ways that they can survive in the rainforest. These are called adaptations. Here are some examples:

Plants

Tall trees in the rainforest grow 'buttresses'. These are really big roots that grow out from the tree trunk above-ground and help to keep the tree standing up.



'Epiphytes' are common in the rainforest. These are plants that live on tree branches and as such their roots aren't in the soil, but rather just in the air. Instead of feeding off the tree, their roots get moisture from the air, and trap dead leaves and insects. Orchids are a good example.



Remember the jungle book and Mowgli swinging through the forest? He was swinging on lianas. These plants are giant vines that hang themselves off the tree canopy. They often start in the tree canopy and extend their roots to the forest floor. Sometimes, like the Strangler Fig, they wrap themselves around a tree and eventually kill it off by blocking out its source of light and stealing its nutrients.

Trees often grow big thorns on their trunks to keep off predators.



Leaves in the rainforest have special qualities. They are often rubbery and have drip-tips to help them shed heavy rain quickly without being damaged. Many leaves in the understory are big to help them absorb as much light as possible, helping them to grow.




Animals and Insects

Red-billed Toucans are noisy, colourful birds that live in the main canopy. Although their beaks might look unusual, they are very strong. They've adapted to help them crack open the hard nuts that they eat.



The Spider monkey lives in the forest canopy. It has a very long tail that has a strong hairless tip and can grow up to 90cm long. This tail helps give the monkey balance, as well as a 'fifth hand' that helps grip branches. It's very useful for all the tree swinging the Spider monkey has to do!



Leafcutter ants climb tall trees to cut small pieces of leaves which they carry all the way back to their nests. The leaf pieces they carry are up to *50 times* their weight, but they don't eat it straight away. The ants bury the leaves and use their saliva to grow a fungus which is the only food the Leafcutter ants eat.



The Anaconda snake has lots of green and black markings called camouflage which help it to blend in with its background.




Now it's over to you to create your own rainforest!

Ideas for your rainforest

There are so many amazing plants and incredible wildlife living in the rainforest. We've put together a list of some of the different examples you might want to add to your *Rainforest in a Box* — but we encourage you to find out about others too!



Layers of the rainforest

- Emergent layer
- Canopy layer
- Understorey layer
- Forest floor



Birds, Animals and Insects

- Macaw
- Toucan
- Leafcutter ants
- Three-toed sloth
- Jaguar
- Spider (e.g. Amazonian Tarantula or Jumping spiders)
- Frog (e.g. Poison Dart frog or Clown Tree frog)
- Tree porcupine
- Pygmy anteater
- White Bellied Spider monkey
- Peruvian Woolly monkey
- Snake (e.g. Anaconda or Boa Constrictor)

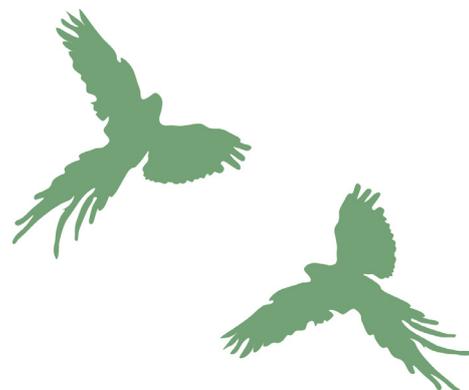
Vegetation features

- Rubbery, large and drip-tip leaves found in the understorey and forest floor
- Thorns on tree trunks
- Buttress roots
- Epiphytes living off branches e.g. orchids



Plant Species

- Strangler Fig (liana)
- Kapok (emergent layer tree)
- Brazil Nut Tree (emergent layer tree)
- Mahogany (canopy layer tree)
- Tornillo (canopy layer tree)
- Spanish Cedar (canopy layer tree)
- Shihuahuaco (canopy layer tree)
- Aguaje (Palm tree – canopy layer)
- Cocoa (understorey tree)
- Lime (understorey tree)
- Soursop (understorey tree)
- Copoazu (understorey tree)
- Acai Palm Tree (understorey tree)





About Plant Your Future

Plant Your Future is helping to protect and restore the Amazon Rainforest which is under threat from deforestation. Sadly large areas of rainforest have already been destroyed. We work with local farming communities to help them plant trees in areas where the rainforest has already been cut down. Some of these trees that we help them to plant, grow fruits like lime and cocoa (which is used to make chocolate!). The people we work with are very poor, so the farmers sell these fruits to earn money that can help their families to improve their quality of life. We also teach the farmers how to look after their trees so that they can grow well. This includes how to control pests and different natural ways they can improve the soil that the trees grow in.

So far, we have helped rural communities plant and maintain 44,000 healthy and productive trees in the Loreto and Ucayali Regions of the Peruvian Amazon. We've also achieved independent certification by the Rainforest Alliance, and are proud to say that 100% of the farming families who have joined our reforestation programme are still working with us!

Want to help Plant Your Future restore the Peruvian Amazon Rainforest? It costs just £2 to plant a tree today!

**To find out more and donate, visit
www.plantyourfuture.org.uk**

