



Rainforest Rescue

School Education Kit

About Rainforest Rescue

Rainforest Rescue is a not for profit organisation that has been protecting and restoring rainforests in Australia and internationally since 1998 by providing opportunities for individuals and businesses to Protect Rainforests Forever.

Our projects re-establish rainforests through planting, maintenance and restoration programs, as well as purchasing and protecting high conservation value rainforest and preserving its biodiversity.

About Rainforests

What is a Rainforest?

A rainforest can be described as a tall, dense jungle. The reason it is called a "rain" forest is because of the high amount of rainfall it gets per year. Rainforests can be tropical, subtropical, and temperate forests. The climate of a rainforest is very hot and humid so the animals and plants that exist there have learnt to adapt to this climate.

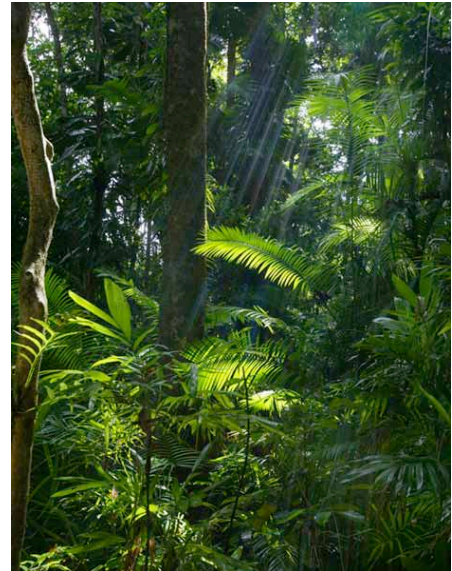
Rainforests are a natural pool of genetic diversity (known as bio-diversity) offering a rich source of medicinal plants, high-yield foods and a range of other useful forest products.

Rainforests cover only 6% of the world's surface, but they support half of the species of plant and animal life on Earth and absorb vast amounts of carbon from the atmosphere. Their biodiversity provides vital ecosystem services upon which all of humanity depends.

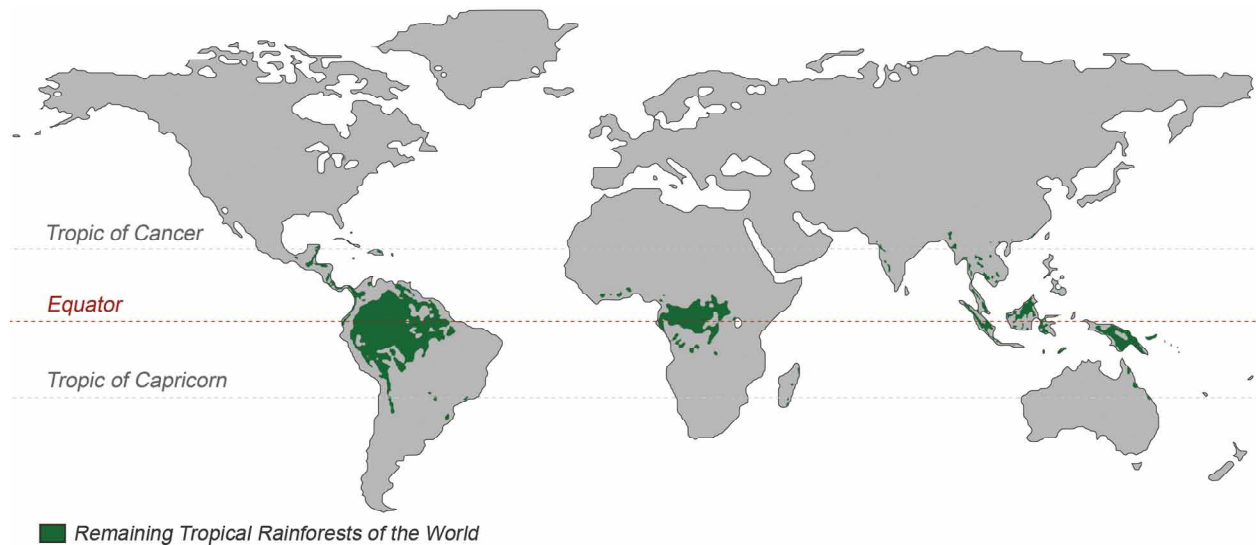
Why Study the Rainforest?

Studying rainforests helps us to understand their secrets. Some scientists estimate that we are losing over 130 plant, animal and insect species every single day due to rainforest deforestation. That equates to 50,000 species a year. As more and more rainforest species disappear, so do the potential cures for life-threatening diseases.

Currently, more than 120 prescription drugs sold worldwide come from plant-derived sources. 25% of Western pharmaceuticals are derived directly from rainforest ingredients and scientists have tested less than 1% of these tropical plants for their medicinal attributes.



Where are Rainforests located?



Tropical rainforests are located in a band around the equator from the Tropic of Cancer in the north, to the Tropic of Capricorn in the south.

A subtropical rainforest is one that lies immediately north or south of the tropics (north of the Tropic of Cancer and south of the Tropic of Capricorn) to about 35 degrees latitude.

A temperate rainforest is one that lies north or south of the subtropics and usually near the ocean, which moderates its climate.

- In Australia, - There are tropical rainforests in northern Australia, for example the Daintree Rainforest. Rainforest Rescue's Daintree Buyback & Protect Forever Project is for this area.
- In the rest of the world there are rainforests all along the equator, for example the Amazon rainforest in South America, also in places like Ecuador and Indonesia. Rainforest Rescue has an Ecuador Save a Hectare Project and an Indonesia Orangutan Habitat for Survival Project.

Rainforest Animals

There are many types of animals that make their homes in the rainforest. Below are just a few examples.

In Australia's Daintree Rainforest we can find:

- The rare Bennetts Tree-Kangaroo
- The endangered Cassowary
- The White-lipped treefrog
- The Ulysses butterfly

In other rainforests throughout the world you might find:

- Jaguars
- Orangutans
- Toucans & Parrots
- Gorillas
- Tarantulas

Bennetts Tree-Kangaroo

Deep in the Daintree rainforest lives the Bennetts Tree-Kangaroo, a species that rarely comes to the ground and needs a continuous canopy of trees for its survival. It only lives in the Daintree rainforest and nowhere else in the world. It is so rare because of its limited habitat.

Males are much larger than females and can weigh up to 14 kilograms.

They subsist almost solely upon the leaves of rainforest trees and vines.

They are largely solitary and nocturnal and are considered a cryptic species as they are rarely seen.

They have evolved from Kangaroos that lived on the ground.

They are expert tree climbers and use their extra long tail for balance.

They spend the day hidden in dense vegetation in the rainforest canopy.



The Endangered Southern Cassowary

Affectionately known as 'big chooks', Southern Cassowaries are a greatly loved and iconic species of the Wet Tropics.



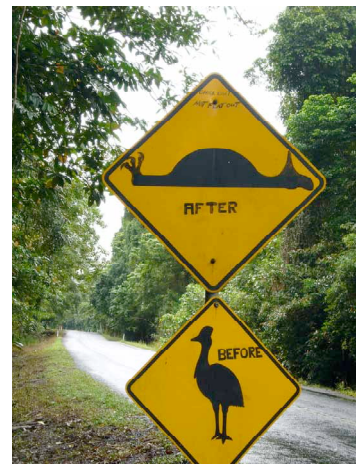
They are the largest animals that live in our Australian rainforests.

Weighing up to 60Kg and standing up to 2 metres tall. Cassowaries are very important to the rainforest as they swallow big fruits whole and spread the seeds in their dung, allowing new trees to grow.

They have a sharp claw in the middle of their three toes, called the 'dagger claw', which is used to strike out when threatened.

There are only around 1,000 birds left and they are classified as endangered.

People must slow down and drive carefully in Cassowary areas, as it is common for them to be hit by cars when crossing roads.



White-lipped treefrog

When it rains you can usually hear these frogs making a deep barking sound that resonates through the air and resembles the bark of a large dog. As their name suggests, these frogs have a white stripe that runs along their lower lip.

These are the largest frog species in Australia and can grow up to 14cm long.

Their skin colour can change from green to brown depending on their surroundings.

When the males are ready to mate, the inside of their thighs turn an impressive red-gold colour.

People should avoid using chemicals in their gardens, as frog's skin is quite thin and easily absorbs chemicals that can harm them.



Ulysses butterfly

These butterflies have luminous blue wings that shimmer in the sunlight.

In contrast to the bright colours on top of their wings, they are brown on the underside, this is camouflage for when they are resting.

They are attracted to red and pink and are often seen feeding on exotic plants.

They are 'frantic fliers', spending more time flitting about than any other butterfly species.

They only live for approximately two to four weeks, until their wings wear out.



Rainforest Destruction

Tropical deforestation is the second largest cause of climate change. The loss of natural forests contributes more to global carbon emissions each year than the transport sector. It is estimated that 42 million acres (160,000 square kilometres) of tropical rainforest is destroyed every year, an area equivalent to the size of England and Wales.

- **By development** – People who are destroying rainforest to build houses, roads and infrastructure.



- **Farming** – People burn rainforest in order to clear the land for farming.



- **Logging** – People who chop down the trees for timber to make furniture, paper and other products manufactured from wood.



Why is it important to protect the rainforests?

- To protect the thousands of different animal and plant species that live in the rainforest.
- To protect medical plants, those that have not yet been explored for their healing abilities. There are thousands of plants in the rainforests that scientist have not discovered yet, some of which could be used to create cures for diseases like cancer, AIDs, Malaria etc.
- To protect the local, indigenous people who live in the rainforest. When the rainforest is destroyed they lose their homes and hunting grounds. When local rainforest people become extinct, all their knowledge of natural plant medicine and culture is lost with them.
- So that the world can breathe! Rainforests have an important role of keeping the right balance of oxygen and CO₂ in the air that we breathe.
- Because rainforests are beautiful! It is important that we protect them so that our future generations can enjoy having rainforests as well.



Rainforest Facts

- Rainforests are home to more species of plants and animals than the rest of the world put together.
- An astounding number of fruits (bananas, citrus), vegetables (peppers, okra), nuts (cashews, peanuts), drinks (coffee, tea, cola), oils (palm, coconut), flavourings (cocoa, vanilla, sugar, spices), and other foods (beans, grains, fish) come from rainforests.
- We lose between 50 and 130 species every day – 2 to 5 species per hour are being lost forever due to tropical deforestation.
- Tropical rainforests act as a global air conditioner - by storing and absorbing carbon dioxide from the air, storing the carbon, and releasing fresh, clean oxygen.
- Over 2000 tropical forest plants have been identified as having anti-cancer properties. However, scientists have only tested 1 in 10 tropical forest plants for these properties and have only intensively screened 1 in 100.
- 75% of Australia's tropical rainforest has been cleared since the late 1700s.
- The tallest tropical tree in the world is recorded at 83 metres tall.
- The largest flower on Earth comes from a tropical forest - the Rafflesia grows up to 1 metre across.
- About 2,000 trees per minute are cut down in the rainforests.
- At least 11 million hectares (110,000 square kilometres) of tropical forest are lost each year, approximately 20 hectares (50 acres) per minute.
- Every second, a slice of rainforest approximately the size of an American football field (1 acre) is mowed down. That is 86,400 football fields of rainforest per day, or around 30 million football fields of rainforest each year.
- Rainforests are critical in maintaining the Earth's limited supply of drinking and fresh water.

Educational & Fundraising Activities

Rainforest Rescue has a range of projects that you and your class can fundraise for.

Support the “Daintree Buyback & Protect Forever” Project

It costs Rainforest Rescue \$50,000 to protect 1 Hectare of Daintree Rainforest!

How big is 1 Hectare?

A hectare is a unit of area equal to 10,000m² or a bit larger than a soccer field.

How big is your classroom?

- Measure the length and the width of your classroom and then multiply them together.
- E.g. 11m x 9m = 99m²

How many times would your classroom fit inside one hectare?

E.g. 10,000 m² ÷ 99 m² = 101

How much does it cost to protect 1m² of Daintree Rainforest?

E.g. \$50,000 ÷ 10,000 m² = \$5

How much would it cost to protect an area of Daintree Rainforest the same size as your classroom?

E.g. 99m² x \$5 = \$495

Support the Ecuador “Save a Hectare” Project

It costs Rainforest Rescue \$300 to protect 1 Hectare of Ecuadorian Rainforest.

The land is much cheaper to protect in Ecuador than in Australia. Ecuadorian Rainforest is more than 150 times cheaper to protect than Australian Rainforest.

How much does it cost to protect 1m² of Ecuadorian Rainforest?

E.g. \$300 ÷ 10,000 m² = \$0.03 or 3 cents per 1m².

How much would it cost to protect an area of Ecuadorian Rainforest the same size as your classroom?

E.g. 99m² x \$0.03 = \$2.97

How can you help Protect Rainforests Forever?

As a class, decide how you can help protect rainforests forever. Try to plan and organise a fundraiser in order for Rainforest Rescue to protect an area of rainforest on your behalf. As in the example given above, you may try to raise enough money to protect an area in the Daintree rainforest the size of your classroom. Alternatively, as a class, you can vote to use the money you have raised to protect 150 times that amount of rainforest in Ecuador.

Hold a Sponsored Fund Raising Event

You can hold a sponsored run, walk, hike, swim, bike ride, jog, hop, three-legged race, book read, skip, football match or dance. Holding an event can be more fun and easier if you organise your event in a group or as a class.

Hold a Rainforest Event

Organise a rainforest themed play, dance routine, talent or fashion show or an art exhibition of your class paintings and ask people to make a donation to come and see your art and performances.

Fundraising Ideas!

You have the power to make a difference. No matter what your experience, you can help raise money for projects through fundraising drives and events. In addition to raising desperately needed funds, your efforts help generate interest in the cause of rainforest conservation.

Here are a few guidelines to help you plan your fundraising event

- Choose a rainforest project to support.
- Set a goal for how much money you'd like to raise.
- Get your friends, classmates and group members to help.
- Decide how much time you want to spend on the fundraising activity or event.
- Choose appropriate fundraising activities and events for your community.
- Figure out if you can obtain donations of materials and sale items or if you need to buy things.
- Think about various ways to publicise your fundraising event (e.g., posters, flyers, announcements in local newspapers, etc.).
- Choose and collect fundraising and educational support materials.
- See how others have made a difference.
- Use your imagination, and don't forget to have a good time!
- Remember, your greatest resources are your creativity and energy. Think positively, have fun and go for it! You can take pride in the fact that you helped save a very special place on our planet... the rainforest.

Here are some tried & tested Ideas

- Make a pledge - hold a spell-a-thon, run-a-thon, roll-a-thon, bird-a-thon, faun-a-thon and/or other activities you create whereby pledges are solicited from prospective donors.
- Design your own T-shirts to wear during your fundraising event.
- Contests - Produce a game show with environmental themes and a prize to the winner.
- Have a tree free paper airplane or kite making/flying contest, etc.
- Raffles - Get everyone to donate rainforest related prizes.
- Hold a dance - Decorate an auditorium, gym, or other space like a rainforest.
- Have a car wash - Get the neighborhood involved as you scrub for a good cause.
- Write letters to companies asking them to change their practices by using 100% recycled photocopy paper and ask them to donate \$300 to Rainforest Rescue's Ecuador "Save a Hectare" Project in Ecuador.
- Think of something completely original.

For further information about Rainforest Rescue or to make a donation, please visit our website at www.rainforestrescue.org.au or call 1300 763 611.

Rainforest Rescue would like to thank the Wet Tropics Management Authority for the use of some of the images featured in this School Education Kit.