

Why does the Amazon rainforest matter?

Just back from their field trip to the Amazon rainforest,
five Zoology and Wildlife Conservation students from
University of Salford reply.....

Edited highlights of interviews with Sevim Yildiz, Ella Christie, Kathryn Beeston, Laura Prah, Ellen Collins by MSc student Andrew Highlands

Why is the Amazon so important to the health of our planet?

- The Amazon rainforest's biological diversity provides eco-system services which keep us and our planet alive.
- There are more different species of plants and animals than any other land system in the world.
- The plants produce the oxygen we breathe, remove carbon dioxide from the atmosphere and act as a huge carbon sink to combat global warming.
- The Amazon rainforest opens your eyes to what Nature can do and this influences education and research.
- It is the one habitat everyone knows and many of its species are iconic. It inspires a passion for conservation and is a great teaching point for lots of people.

Why biodiversity matters

- Biodiversity is the variety of plants and animals we have on the planet, within ecosystems, species and environments. It includes all living things.
- The variety we have on this planet is what maintains our ecosystems and our environments. No two habitats or environments are ever exactly the same, so it's important to conserve what's there because it's not going to be the same anywhere else.
- Biodiversity has monetary value and provides varied opportunities for industry and livelihoods - such as timber and rubber, medicines and food, including fruit, cocoa and coffee.
- The Amazon rainforest is so enriched and so abundant in species diversity it is constantly finding new ways to bring back what humanity has taken from it.
- One small change to one small aspect can have a massive effect on the entire system.

How does the Amazon make the rain fall?

- The Amazon makes its own rainfall on account of its hot climate (which is due its position on the equator) and its density of plants.
- Evaporation from the plants contains very heavy water particles and due to the intense heat, forms low lying clouds over the canopy. It falls immediately as rain instead of being taken up into the atmosphere.

How and why is the threat of fire growing in the Amazon region?

- The Amazon rainforest is becoming increasingly susceptible to forest fires due to selective logging, clearing for agriculture and development (including burning of rubbish). Fire is the quickest way to clear the forest as quickly as possible.
- Deforestation causes fragmentation which also leads to the greater chance of fires.
- Smoke from these fires can disrupt cloud formation and reduces rainfall, which can eventually lead to the rainforest being less humid and wet and it all becomes like a tinder box.
- During the dryer, hotter years that climate change brings, especially El Nino years, fires and risks increase in a vicious circle.

What would happen to our global climate if the Amazon rainforest burnt down?

- The rate of global warming would increase exponentially and so fast no organism would be able to adapt to survive.
- There would be a mass release of the carbon dioxide that is stored within it.
- We would lose around a fifth of the world's oxygen due to the sheer number of plants in it and with temperatures rising very, very quickly we would be pushing further to that final stage of no return.
- We would lose everything the Amazon can provide for us and what we can see and learn from it - and discovery and beauty.
- Preventing the burning of the Amazon is preventing global climate change.

What are the local and global approaches to sustainable development?

- Globally, approaches include fair trade schemes, eco-tourism and education to consumers.
- Locally, education to teach people about sustainable agriculture, growing more species to help maintain nutrients in the soil and teaching people that by sustainably farming or fishing, that they can maintain their habitat for a very long time.
- Education on forest clearing - a lot of forest clearing does go on illegally.
- Growing trees back in burnt areas.
- Discouraging hunting and poaching.
- Combining traditional land use with modern methods like using new science in order to make life as sustainable as possible.

What can we learn from climate change in the carboniferous period?

- Most people associate the carboniferous period with big tropical jungles covering vast swathes of a huge continent that no longer exists, with crazy big bugs and big plants that eat everything.
- In fact, there was a lot of climate variation - glaciers growing and shrinking in quite a small cycle which usually impacted the vegetation and biodiversity of the ocean and the land.
- Global cooling led to massive fragmentation of tropical rainforests which eventually led to their devastation and finally the period ended in an ice age.
- The data stored in our ice and soils and coal can be used to help us understand what is happening today with our global climate and hopefully prevent and slow down global warming and climate change.

Conservation Science Brief

Planet Parliament Now!

www.planetparliamentnow.org

