

Brilliant Butterflies

Butterflies can be found all across the globe, but the greatest diversity of species is found in the tropical rainforests. The warm, wet climate means that rainforests are the perfect place for butterflies to thrive.

How Does a Caterpillar Become a Butterfly?

Metamorphosis is the name of the process insects go through to reach their final adult form. During metamorphosis, butterflies go through 4 different life stages:



*Blue morpho butterflies, one of the largest species of butterfly found in the Amazon rainforest.
Image Credit: Wikimedia Commons*

Egg – Larva (caterpillar) – Pupa (chrysalis) – Adult (butterfly)

[This video](#) from Nat Geo Wild shows awesome footage of the blue morpho butterfly as it emerges from its chrysalis.

Or check out [this time lapse video](#) of the monarch butterfly metamorphosis we posted on our Dynamic Earth YouTube channel.

Why do Butterflies Have Such Amazing Colours & Patterns?

Butterflies (and moths) have evolved to have lots of different colours and patterns for a whole range of reasons.

To warn that they don't taste good

- Some butterflies have bright colours that, in nature, mean that predators should avoid them
- Yellow and black tends to mean that an insect has a nasty sting (like a wasp or a bee) so they're less likely to be eaten
- Other colours such as blue are almost always the sign that something is poisonous or tastes awful
 - Think about it, have you ever eaten a food that is naturally blue? (Blueberries are the first that come to mind, but they are actually purple)



To blend in with their environment

Many butterflies (especially females) have colours and patterns that are similar to their surroundings. The underside of their wings often resembles tree bark, lichen, leaves which will make predators less likely to spot them.

To scare off predators

Some butterflies have 'eye spots' on the underside of their wings that resemble the eyes of a large bird. These help scare away small animals that are eaten by birds of prey.

To attract a mate

Some butterflies (especially males) have bright colours to attract a female. It can be hard to make an impact in the jungle – it is noisy, busy and often pretty dark. If you can find a spot of sun and show off bright colours then you are more likely to be spotted by a mate.

Did you know, butterflies can see a wider range of colour than humans do? They can see in the ultraviolet and infrared spectrums, as well as visible light!

To keep their bodies at a good temperature

Butterflies like to be warm, so they often have dark spots on their wings (close to the middle where their body is) that absorb heat.



Several different species of butterflies mud puddling in the tropics
Image Credit: Wikimedia Commons

What do Butterflies Eat?

Butterflies have specialised mouthparts (called a proboscis) that work a bit like a straw.

Many people know that butterflies use their proboscis to drink nectar from flowers, and this is true for a lot of butterflies, but in the rainforest they have also adapted to feed on other things too, such as:

- The fermented juices from rotten fruit
- Mud
- Animal tears (yes, really!)
- Decomposing plants and animals
- Urine and faeces

Check out [this video](#) of butterflies mud-puddling in the Amazon!



Butterfly Baking!

So, it turns out butterflies eat some pretty gross stuff, but we hope that hasn't put you off your food because we have a fun, very tasty, activity lined up!

Did you know that butterflies are a really tasty snack for apes and monkeys that live in the rainforest? We all belong to the great ape family, along with gorillas, orangutans, bonobos and chimpanzees, but we thought you might prefer something a bit sweeter, so we found [this recipe](#) for yummy butterfly cakes!

Butterflies at Home!

Summer is the perfect time to spot butterflies right here in Scotland.

Join the Big Butterfly Count

Every year people from across the UK go out in the sunshine and spend 15 minutes spotting and identifying butterflies. The information gathered during the [Big Butterfly Count](#) can help scientists and conservationists understand the health of the UK's natural ecosystems.

This year (2020) people are asked to log their sightings between July 17th – August 9th.

[This video](#) shows how you can get involved!