



Forest at the South Pole 90 Million Years Ago



What was Antarctica like 90 million years ago?

- Scientists from Germany and the UK went to Antarctica and took soil samples.
- From these samples, they found out there was a rainforest in Antarctica 90 million years ago.

What image do you have in your head of Antarctica? You might think of penguins, freezing temperatures or even icebergs. It seems that 90 million years ago, things were a world away from what they are today.

A team of scientist found evidence that there was a rainforest in Antarctica. So, how did they find this out? Well, they drilled some very deep holes and took soil **samples**. This told them about the **climate** in Antarctica during the time of the dinosaurs.

In the samples, they found the fossils of plant roots. This shed light on the climate at the South Pole long ago.

Scientists believe the Antarctic had a swampy landscape and there were forests found there like those found in New Zealand today. It would have been much warmer too. The **average** temperature would have been 12°C. In the summer, this rose to 19°C. By contrast, it can get as cold as -60°C in Antarctica today.

The evidence also suggested that west Antarctica had the same amount of rain as Wales, in the UK, today.

During the winter in Antarctica, there can be months without sunlight. The scientists say this was the same 90 million years ago. But, unlike today, plants could still grow during the four months of darkness.

Professor Tina van de Flierdt said that **temperate** rainforests were still "able to grow



Photo: Scientists say there was a forest at the South Pole 90 million years ago.

close to the South Pole." This was due to the warm climate.

But what do we know about the Earth 90 million years ago? Experts call this period the Cretaceous era. It was when the mighty Tyrannosaurus rex existed.

Last year, a fossil of a huge sea reptile that lived in Antarctica during the Cretaceous era was found. It was called an Elasmosaurus and it had an extremely long neck.

Glossary

- samples** Taking a small amount to help you find out about an area.
- climate** The weather in a place over a long period of time.
- average** A number that's calculated to be normal over a period of time.
- temperate** A climate that has mild temperatures.

Questions

1. 'It seems that 90 million years ago, things were a world away from what they are today.' The phrase 'a world away' suggests that...
 - Antarctica was on another planet.
 - it's almost the complete opposite.
 - it's very similar.
 - there were no humans on Antarctica then.
2. How did the scientists get the evidence to find out more about Antarctica 90 million years ago?

3. 'This shed light on the climate at the South Pole long ago.' Tick the phrase that is closest in meaning to the 'shed light'.
 - described in detail
 - discussed deeply
 - revealed more
 - replaced a bulb

4. Compare and contrast temperatures in Antarctica today and the temperature on this continent 90 million years ago.

5. Were you surprised by what scientists discovered about Antarctica? Explain your answer, including ideas from the text.

6. Write a summary of the story in 20 words or fewer.

Answers

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- there were no humans on Antarctica then.

2. How did the scientists get the evidence to find out more about Antarctica 90 million years ago?

Accept any reasonable answer that refers to the story, e.g. They drilled some very deep holes and took soil samples. This told them about the climate in Antarctica during the time of the dinosaurs.

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4. Compare and contrast temperatures in Antarctica today and the temperature on this continent 90 million years ago.

The average temperature would have been 12°C. In the summer, this rose to 19°C. By contrast, it can get as cold as -60°C in Antarctica today.

5. Were you surprised by what scientists discovered about Antarctica? Explain your answer, including ideas from the text.

Accept any reasonable answer that refers to the story, e.g. I was surprised by the story because I thought that Antarctica had always had extremely cold temperatures even when dinosaurs lived.

6. Write a summary of the story in 20 words or fewer.

Accept any reasonable summary that refers to the story, e.g. Scientists have found that there was a forest in Antarctica 90 million years ago when dinosaurs lived.