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see how we lived

# The First Living Things



 Orpheus

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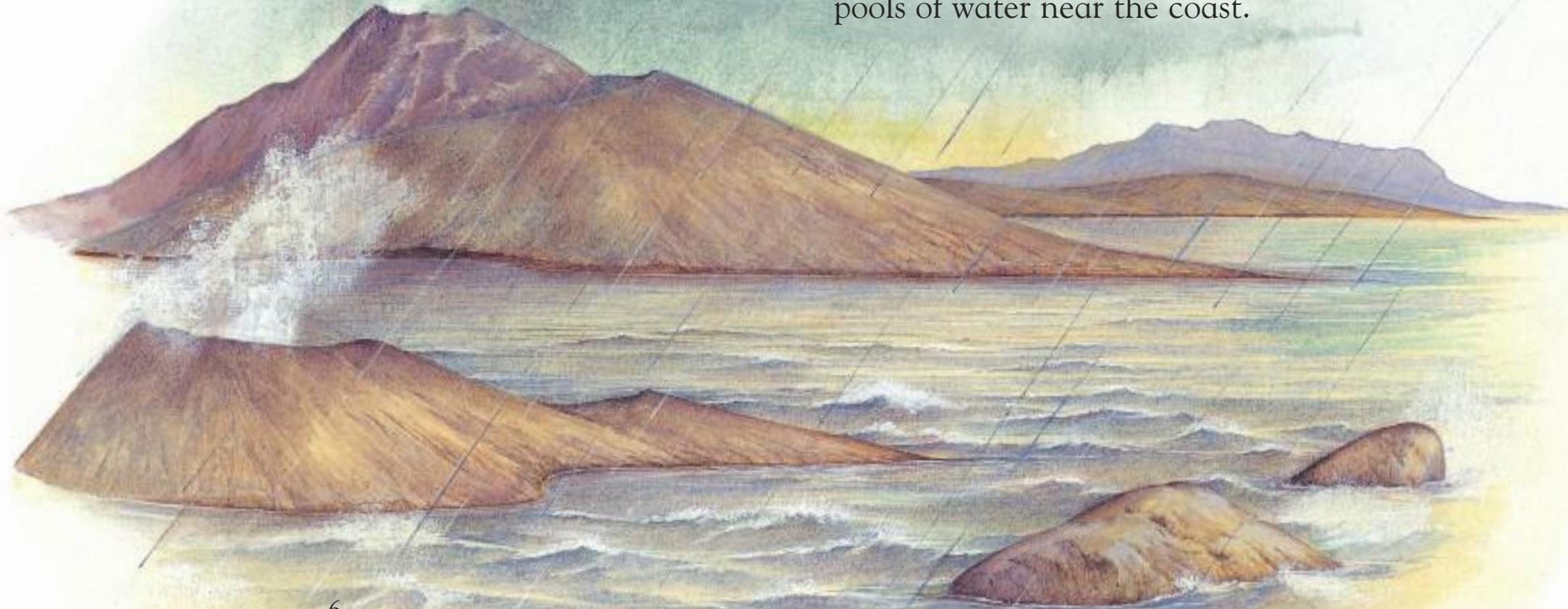


## The first living things

Can you imagine what life on Earth was like hundreds of millions of years ago—even before the dinosaurs lived? Let's go back in time and meet some of the animals that lived all that time ago. Notice how, over millions and millions of years, the animals gradually changed: for example, from fish to amphibian, or from fish to reptile.

# What were the first living things?

The first living things on Earth appeared in the oceans more than 3500 million years ago. These early life forms were microscopic bacteria. They lived in warm pools of water near the coast.





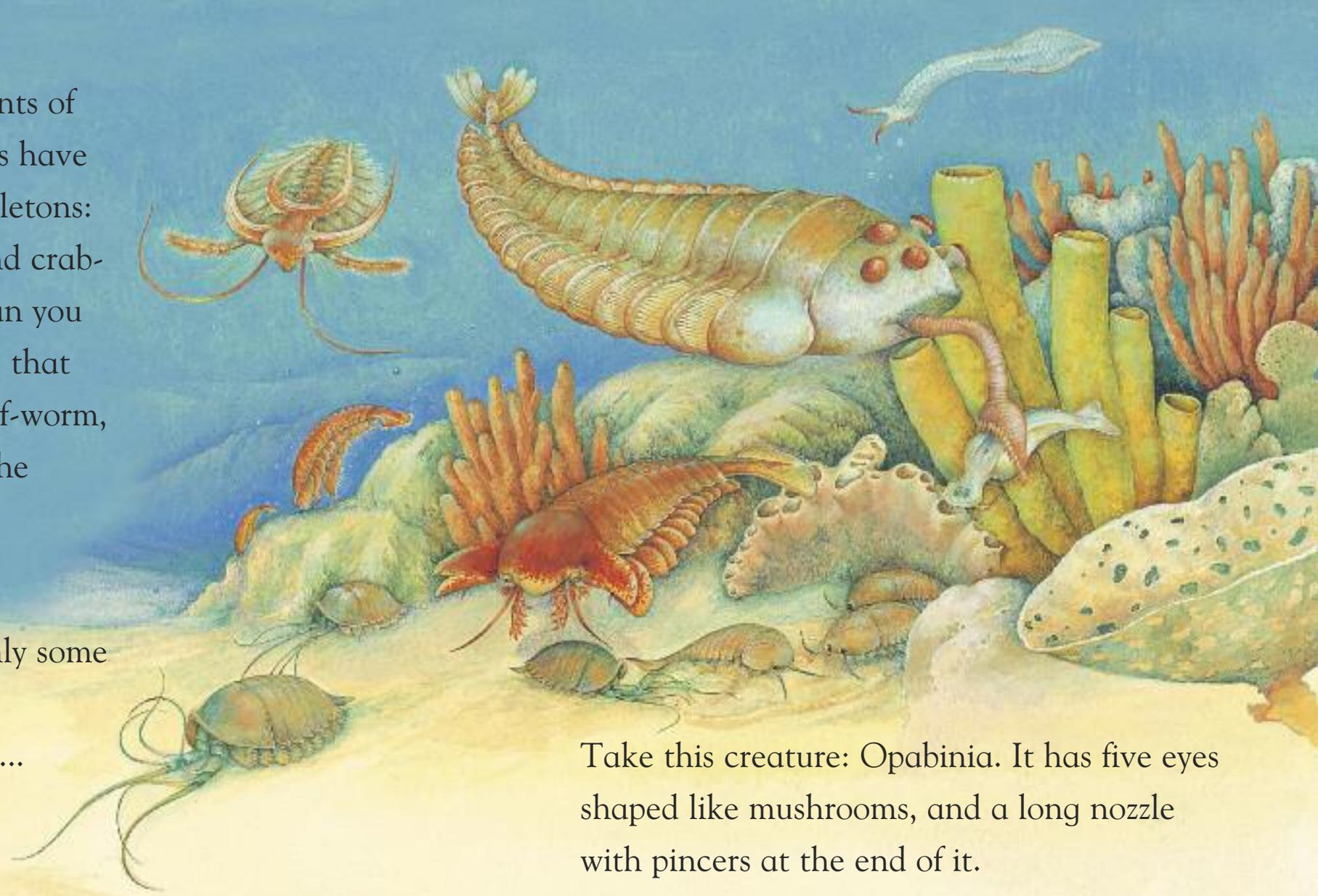
Now let's fast forward to about 540 millions years ago. The warm seas are teeming with life—in all shapes and sizes.

I am Anomalocaris (my name means “odd shrimp”), the largest and fiercest predator of my time. I am as long as your arm and will eat almost anything that comes close! All the other sea creatures live in fear of me. I use my pincer-like arms to grab my victims and push them into my spine-rimmed mouth.

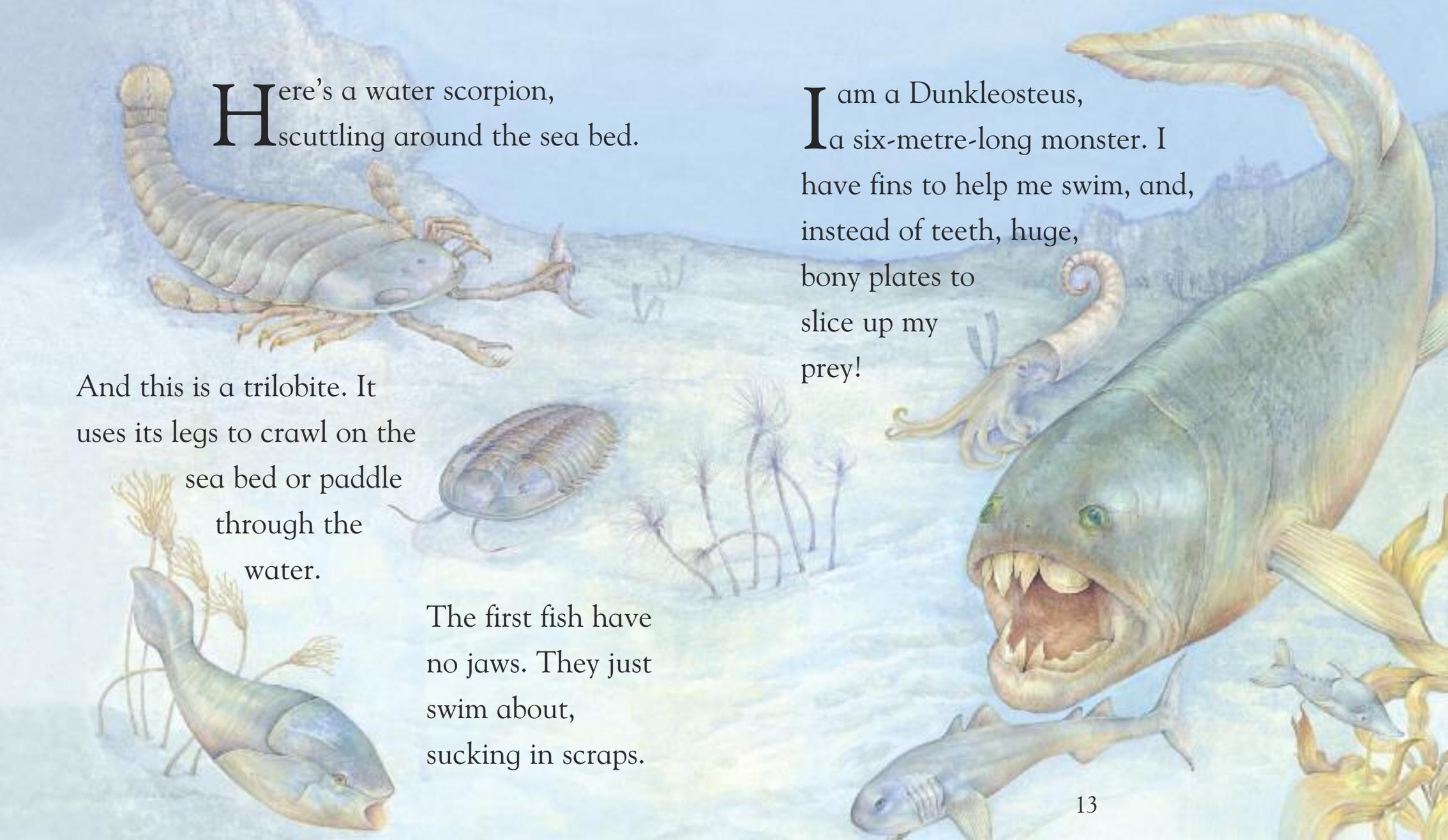
I might give those spiky, bottom-living creatures a miss though ...

Some inhabitants of the warm seas have hard shells or skeletons: shellfish, coral and crab-like creatures. Can you see the white one that appears to be half-worm, half-fish? It has the beginnings of a backbone.

There are certainly some very odd-looking ones amongst us ...



Take this creature: Opabinia. It has five eyes shaped like mushrooms, and a long nozzle with pincers at the end of it.

A detailed illustration of a prehistoric ocean scene. In the upper left, a water scorpion with a segmented body and long pincers swims. In the center, a trilobite with three distinct body segments crawls on the sandy sea bed. To the right, a large Dunkleosteus with a wide, toothy mouth swims towards the viewer. In the lower left, a primitive fish-like creature with a long, thin body swims near some seaweed. The background shows a vast, shallow ocean with distant landmasses under a blue sky.

Here's a water scorpion,  
scuttling around the sea bed.

And this is a trilobite. It  
uses its legs to crawl on the  
sea bed or paddle  
through the  
water.

The first fish have  
no jaws. They just  
swim about,  
sucking in scraps.

I am a Dunkleosteus,  
a six-metre-long monster. I  
have fins to help me swim, and,  
instead of teeth, huge,  
bony plates to  
slice up my  
prey!



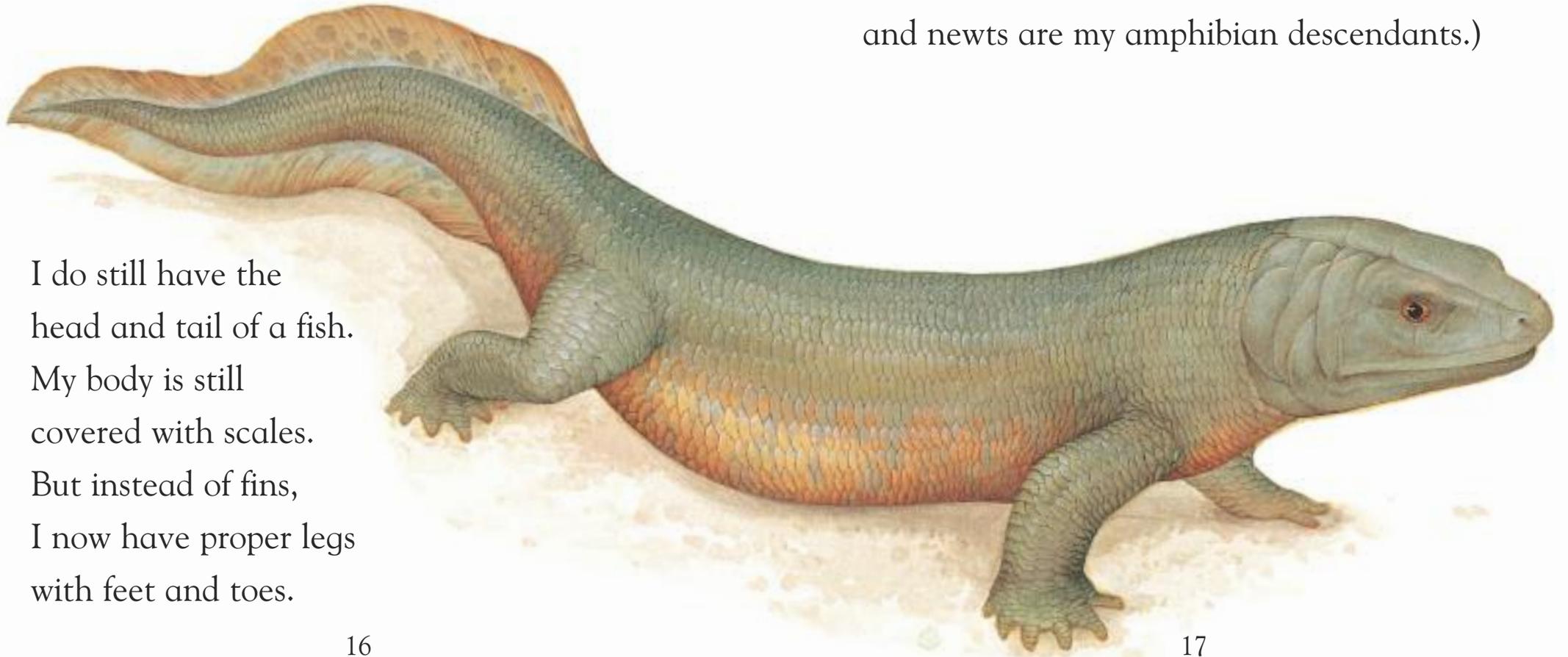
## Which were the first land animals?

We've now travelled forwards another 150 million years. The Earth is warm and wet. At last, the land is green with plants. Where there are plants, there are insects. And some of us fish are very interested in eating insects. We are even prepared to crawl out of the water to grab them!

It's 360 million years ago now. Do you recognize me? I've changed a bit from my fleshy-finned, fishy ancestor ...

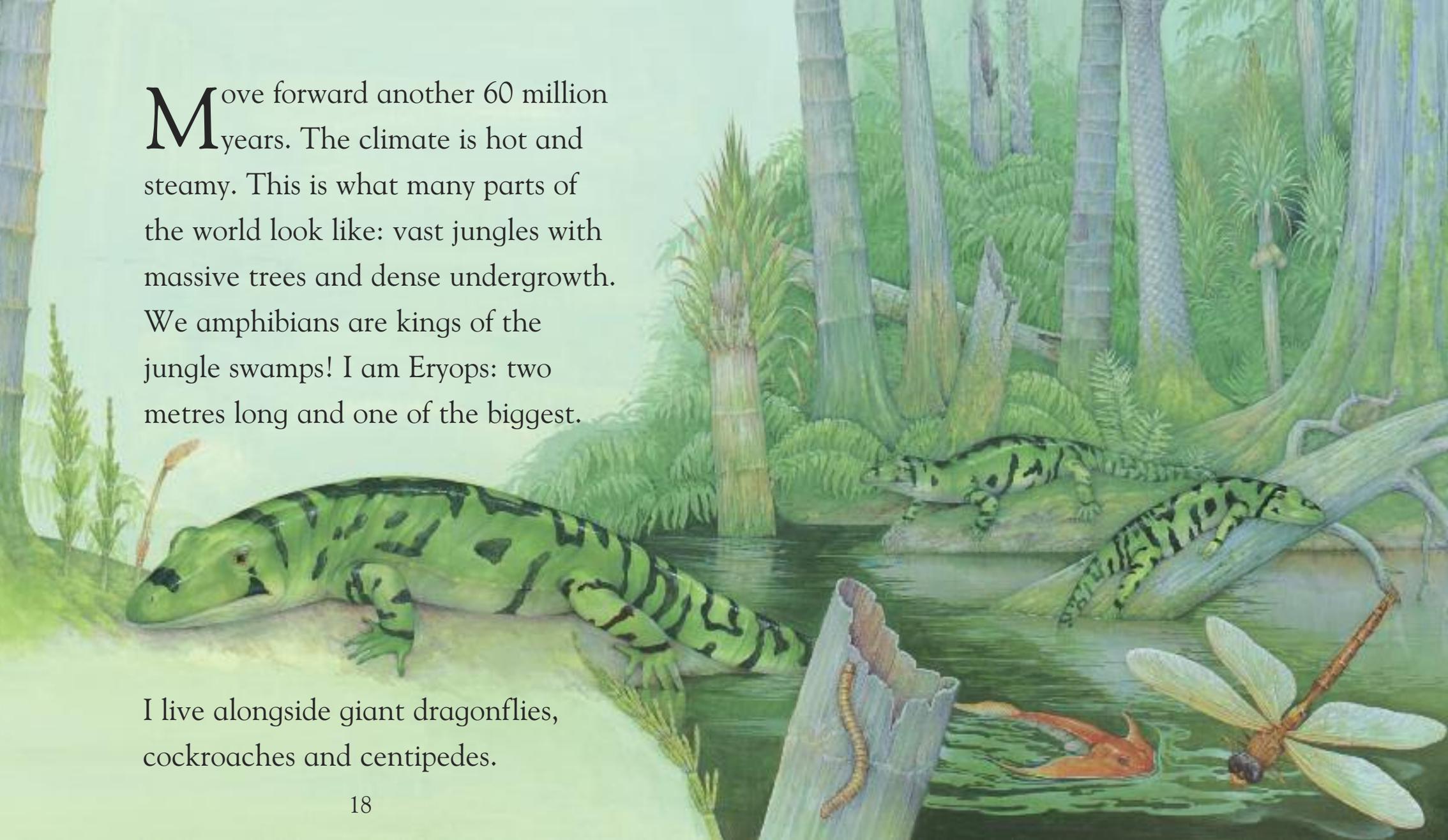
I still spend a lot of time in the water where I lay my jelly-covered eggs. But I can also walk about on land. My name is Ichthyostega and I am one of the first amphibians. (Frogs and newts are my amphibian descendants.)

I do still have the head and tail of a fish. My body is still covered with scales. But instead of fins, I now have proper legs with feet and toes.



**M**ove forward another 60 million years. The climate is hot and steamy. This is what many parts of the world look like: vast jungles with massive trees and dense undergrowth. We amphibians are kings of the jungle swamps! I am Eryops: two metres long and one of the biggest.

I live alongside giant dragonflies, cockroaches and centipedes.

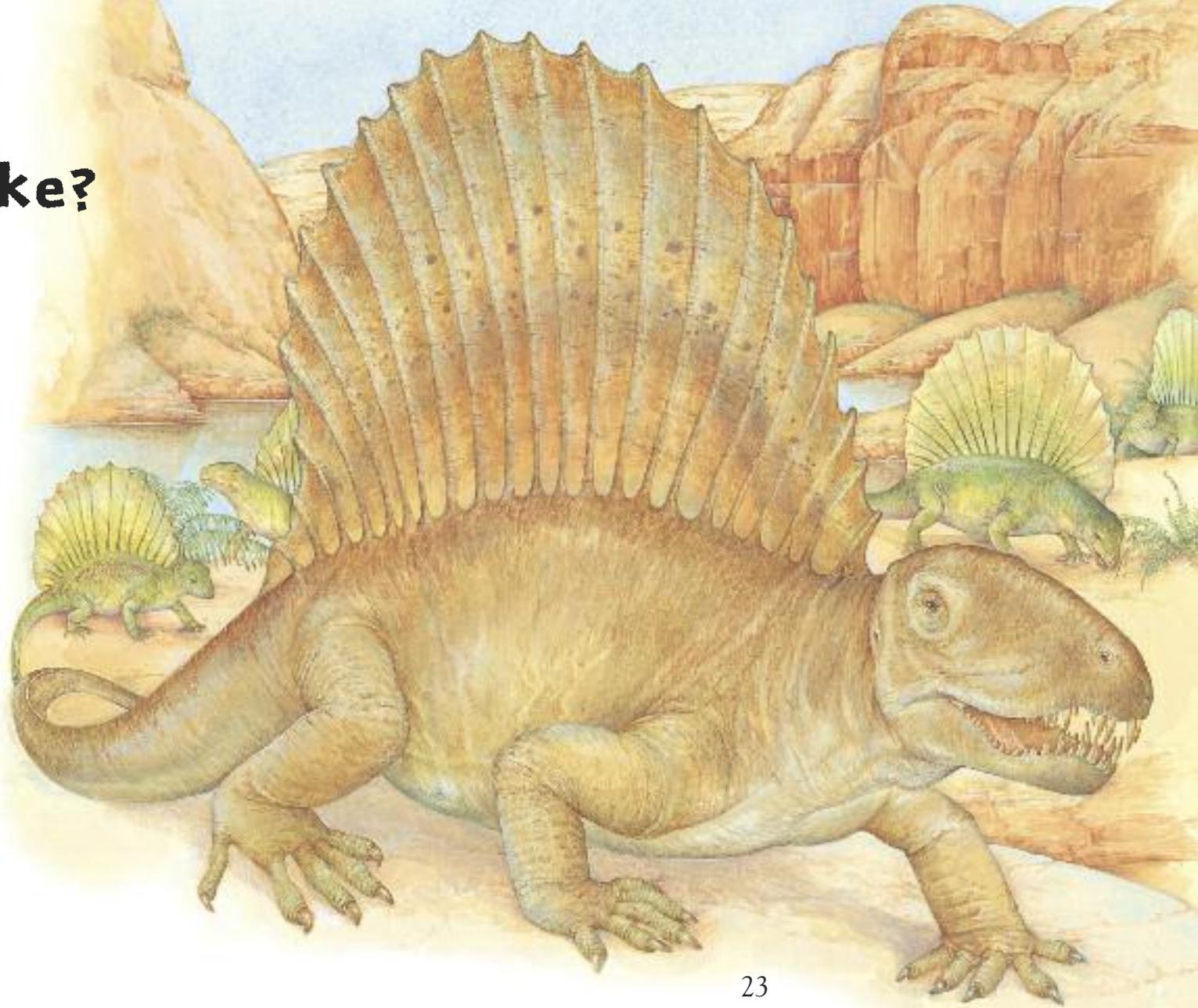




I'll have that little insect for a snack! Some of us no longer need to live near water like that lumbering amphibian. I spend most of my time up this tree or on the forest floor. I even lay my eggs on land. I'm Hylonomus, one of the first reptiles.

## What were the first reptiles like?

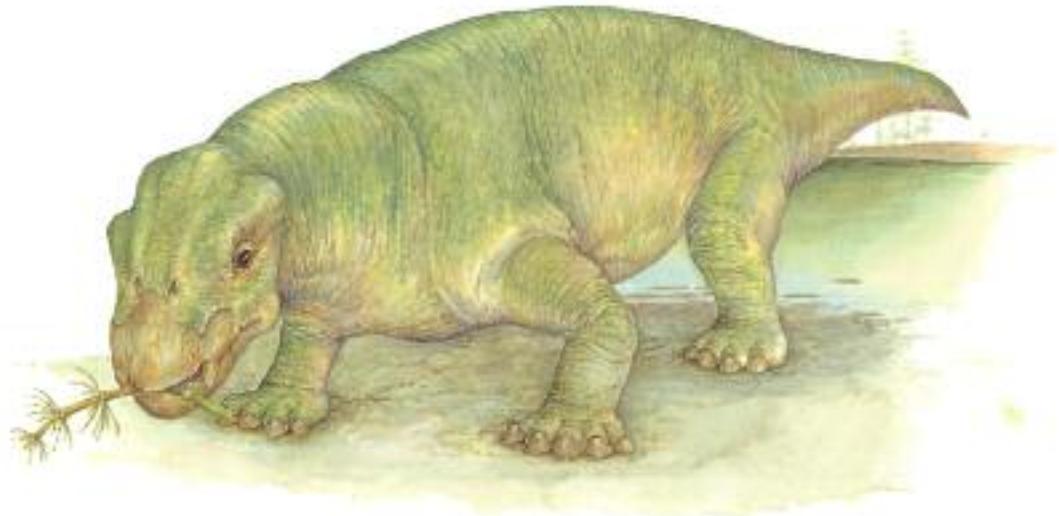
It's 280 million years ago. The world's climate has turned hot and dry. Gone are the steamy jungles and so have the giant amphibians that once lived in them. Reptiles like me, Dimetrodon, love the scorching scrublands and deserts. That huge sail on my back, made of skin held up by long spines, helps me heat up or cool down more easily.



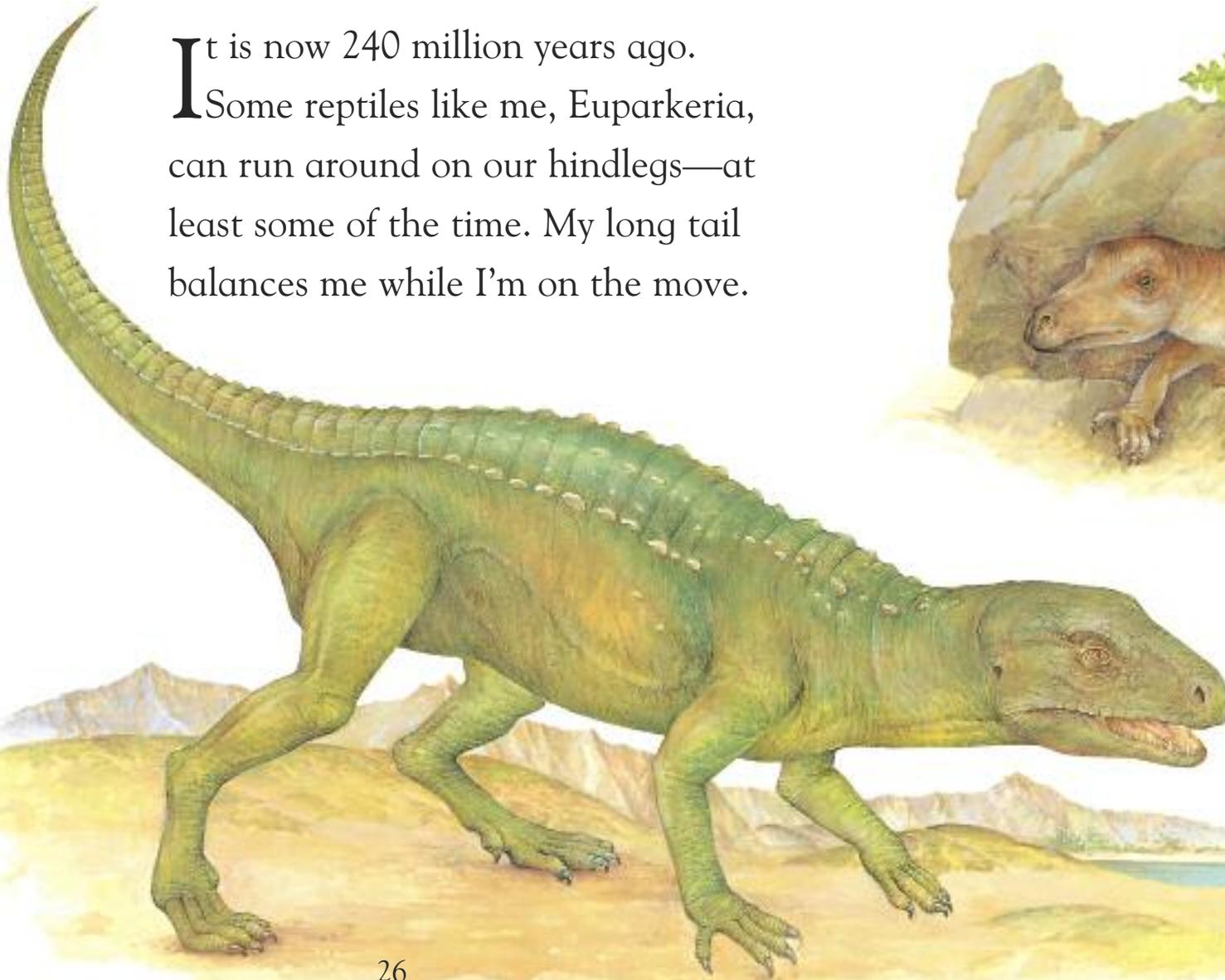


**T**hey call me Scutosaurus (“shield reptile”) because of my bony armour. I am another kind of reptile. I walk upright instead of splaying my legs out like Dimetrodon. I am very slow-moving, so I need my armour to protect me from fleet-footed predators.

**A** Lystrosaurus like me loves to wallow in shallow water. I feed on water weeds which I rip out with my tusks. My nostrils are on the top of my head. This means I can wallow deep in the cool water all day long without having to come up to breathe.



It is now 240 million years ago.  
Some reptiles like me, Euparkeria, can run around on our hindlegs—at least some of the time. My long tail balances me while I'm on the move.



Mammal or  
reptile? I've got fur like a mammal, but I'm actually a reptile. My fur helps to keep me warm.

## When did the first dinosaurs appear?

Dinosaurs first appeared about 230 million years ago. I am Coelophysis, one of the earliest kinds.

So what makes me a dinosaur, and not just any reptile? It's the way I walk and run with my legs upright—not splayed out like lizards or crocodiles. I move around on two legs all the time. I'm a fast-running hunter.

