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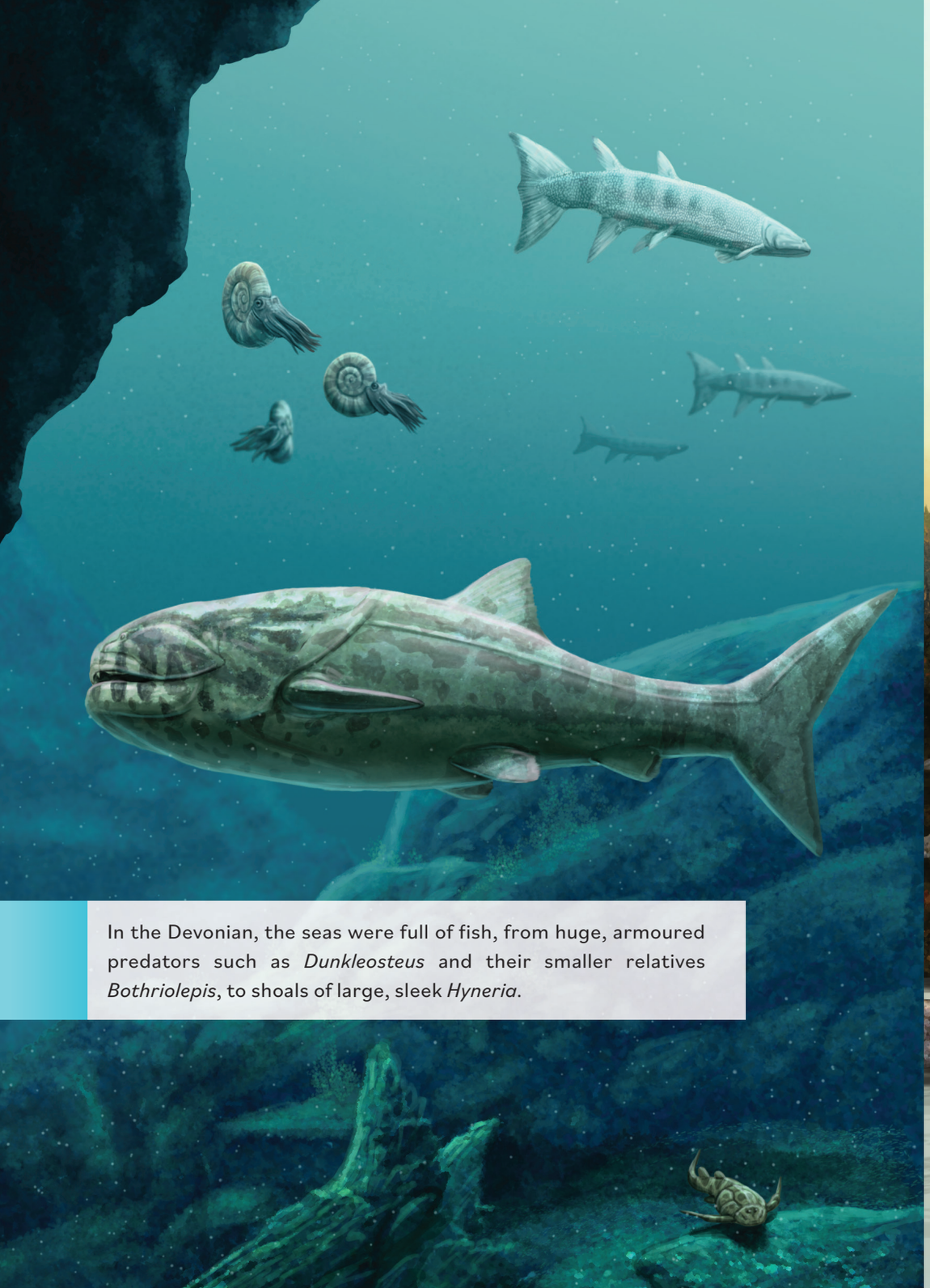


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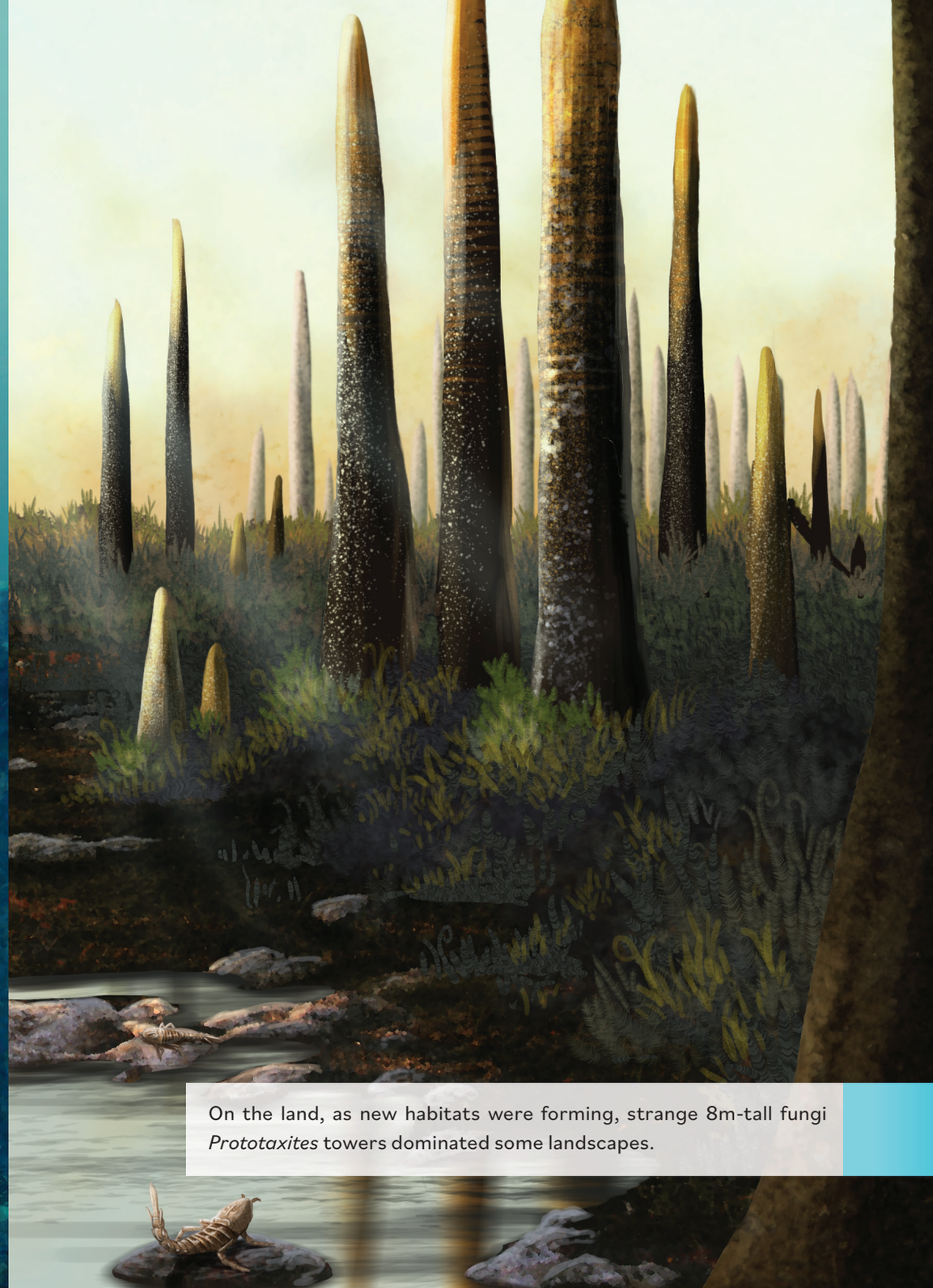
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'No water, no life. No blue, no green.'

Dr Sylvia Earle



In the Devonian, the seas were full of fish, from huge, armoured predators such as *Dunkleosteus* and their smaller relatives *Bothriolepis*, to shoals of large, sleek *Hyneria*.



On the land, as new habitats were forming, strange 8m-tall fungi *Prototaxites* towers dominated some landscapes.



DUNKLEOSTEUS

FOR ME, the ocean and the habitats which surround it have always offered a sense of comfort and belonging. I've never been scared of the sea or anything in it, and have been lucky enough to see majestic tiger sharks and huge humpback whales up close. But had I been diving in those same seas some 360 million years ago, I think I would have been terrified.

Millions of years before whales evolved or before there were any large sharks, the world's first super-predator swam there. When we look at a food chain, there are often a couple of layers of predators, sometimes with one type of hunter going after another, but when there are no more levels above a certain predator, it can be said to be at the top of the food chain. It's what

we call an apex predator, the ultimate predator in that ecosystem. And the first apex predator wasn't just the ultimate predator in its environment but would have been the ultimate killer *anywhere* on the planet. Back in the Devonian, the deadliest predator the world had ever known was *Dunkleosteus*.

DISCOVERY

If I asked you to conjure the deadliest marine predators, which would appear in your mind? Go on, try it. A great white shark? Obviously. The killer whale? Oh, nice! A pliosaur? Great – you're going old-school now! The oceans around the world have been home to some of the most terrifying and mighty predators that nature has to offer, from the speedy ichthyosaurs and ravenous bull sharks to giant squid-munching sperm whales.

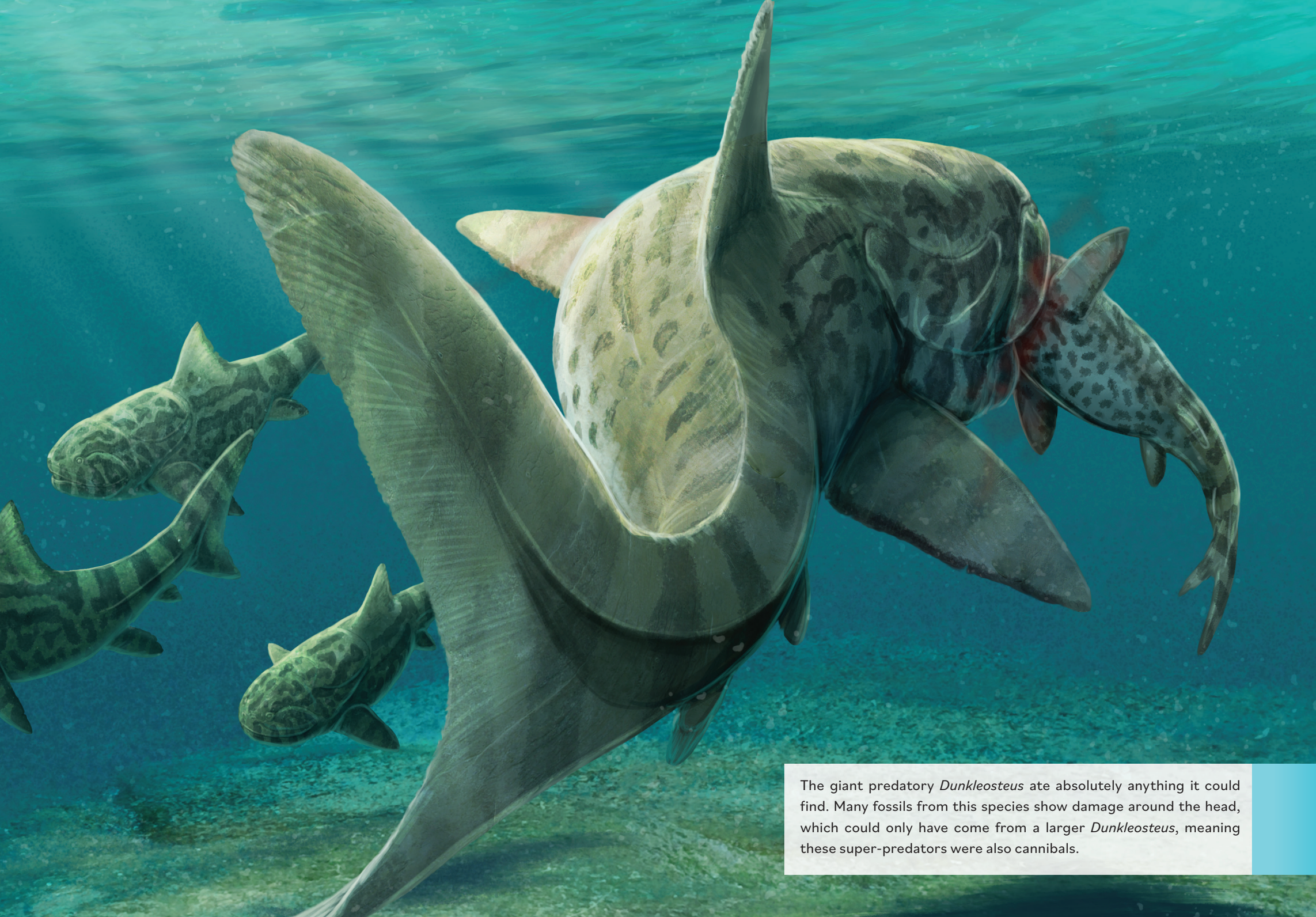
It's as if marine habitats around the world are the perfect playground for evolutionary experiments and, if evolution did have an imagination, oceans would be the place where it was allowed to go a bit wild.

But let's go back to before toothed whales appeared and earlier than the first predatory prehistoric marine reptiles – further into prehistory than even the large sharks we see today. Back to a time when mammals were a far-off daydream and even the ancient sharks were still relatively small and not the impressive predators they would later become. There was, however, a giant predator dominating the oceans. It was the biggest predator that, up until that point, had ever existed. It was the first super-predator, the first apex predator. It was *Dunkleosteus*.

The infamous, ancient and armoured *Dunkleosteus* existed at a time when animals were first evolving to move on to the land. To be fair, if I was an ancient fish with fins that could be used as legs, I'd have given the land a go too, just so that I never had to meet *Dunkleosteus* underwater. There was nothing else like this marine monster then and there hasn't been since.

We have some great fossils, but there is still so much about this iconic predator we don't know. Why did it need to be so big? What did its body look like? Was it *really* a cannibal?





The giant predatory *Dunkleosteus* ate absolutely anything it could find. Many fossils from this species show damage around the head, which could only have come from a larger *Dunkleosteus*, meaning these super-predators were also cannibals.