Q&A: Building on paradise

Communicating the ideas of evolution is as much a challenge now as it was 150 years ago. In the wake of his recent BBC television programme, *Charles Darwin and the Tree of Life*, naturalist and broadcaster **David Attenborough** tackles those who challenge evolution head on.

Darwin200

Why is teaching evolution now more important than ever?

Because of the influence of the Bible's book of Genesis, which says the Lord God said 'go forth and multiply' to Adam and Eve and 'the natural world is there for you to dominate, you have dominion of the animals and plants of the world'. That basic notion — that the world is there for us, and if it doesn't serve our purposes it's dispensable — has produced the devastation of vast areas. We have assumed that we can build a house on it, dig it up, put tarmac over it; that's OK because it's there for us. In finding solutions to our ecological problems we have to understand evolutionary processes.

What are you trying to convey in *Charles Darwin and the Tree of Life*?

It's not a programme about Darwin's life. It's about the objections that people in Darwin's time and since have found to avoid accepting the propositions of evolution. In Darwin's time the geographical distribution of animals was not understood, the links between the great phyla were believed to be missing, the age of Earth was thought to be too short to have allowed evolution to take place, and the mechanism of genetics was not understood at all. The answers to those questions have only emerged in my lifetime. We've been able to precisely date rocks because of radioactivity for only 50 years; we have understood continental drift for 50 years and DNA for less time than that. But cumulatively those answers validate Darwin's insight.

Do you think television is a good medium for science?

It's a very good medium for lighting flames of curiosity, raising questions, getting people excited. I don't think it's a very good medium for working things out in fine detail. People who are interested in finding out more go to books. Books, or writings on your computer screen, which you can take at your own pace, are much better for explaining scientific theory. But television creates excitement.

How do you interact with scientists when making your programmes?

I say 'How I envy you, in my romantic way, having drawn the veil away from the face

One of David Attenborough's favourite moments was watching the vibrant bird of paradise (right).

of truth and seen a little bit of something nobody else has ever seen — how wonderful that must be!'. And they say, 'Oh yeah, but it's taken me 35 years of sitting in this swamp to do this; I wish I had the opportunity to go to the desert or the poles or wherever you have been.' So you can't have everything.

After 50 years of filming the natural world, what is your favourite moment?

Watching displaying birds of paradise, because they are very remote from us. When you look at birds of paradise you realize there's an essence of life — an extraordinary life force — that has nothing to do with humanity and that has been going on long before primates even appeared on Earth. When, sitting concealed in a hide, you see all that vigour and variety and passion, you realize that humanity is not dominant in the world and is only a small part of it. I find that moving.

What next?

I'm going to South Georgia in the south Atlantic to look at the glacier that I visited 15 years ago, which has now virtually disappeared. The influence of humanity on the natural world has become much greater in the past decade. That's why it's important to tell people about evolution. Still in the back of so many minds is the thought that 'we own the world and we can do what we like with it, and if we wish to devastate it that's entirely up to us'. It is not entirely up to us. ■

Interview by **Adam Rutherford**, *Nature's* Podcast and Video editor.

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