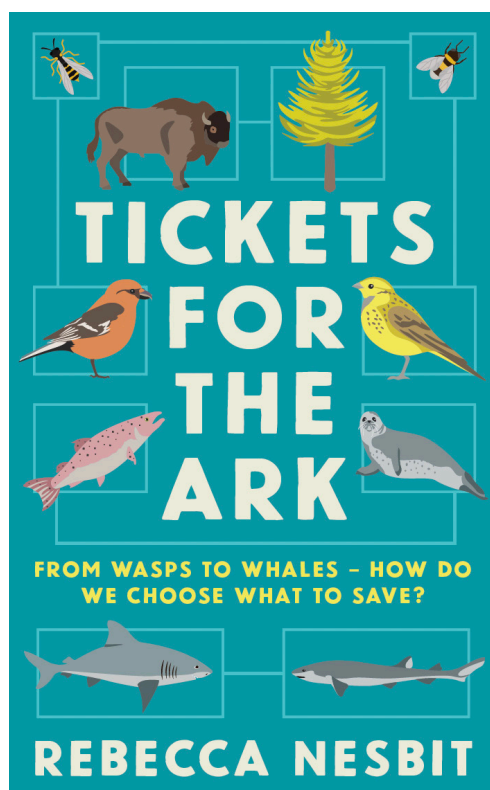


Ecologist Dr Rebecca Nesbit



Tell us about yourself and your academic background; how you became an ecologist.

I've been interested in nature and the environment ever since I was a small child, and my family encouraged it. As a teenager I spent time volunteering on nature reserves, including residential placements on islands, which was an amazing experience. It revealed how dedicated and knowledgeable ecologists can be. I then went to Durham University to study Biology. It was valuable to have a broad degree, although it was the ecology modules that interested me the most.

Why did you choose butterfly migration for your PhD and what was the most interesting thing you saw/discovered?

There was a great element of chance in this. As a nature reserve volunteer I was introduced to moth trapping, and was amazed to discover that some of the moths were migrants – I had no idea that insects crossed continents. It meant that when I saw an advert for a PhD studentship studying migration I was very keen to apply. Part of this work was using data collected by entomological radars, which showed that butterflies migrate at high altitudes - some are flying hundreds of metres above our heads!

Are you still engaged in research and what is your focus?

I don't do any research of my own, but I'm in touch with lots of former colleagues and am always keen to see what they are working on.

The subtitle of your book asks 'how do we choose what to save?' – in an ideal world, which endangered animal/plant would be top of your list to save and why?

I keep changing my mind, but today I'm trying to choose between any of the three orangutan species and the African savanna elephant.

Orangutans because all species are critically endangered, so there's a real risk we could lose them all, and I hate the thought of a world without these fascinating, intelligent creatures. The elephants I'm likewise choosing because of their intelligence and cultural value, but also because of the important role they play in ecosystems.

What do you think is the biggest challenge facing the natural world today and is it beatable?

Climate change. I don't think it's beatable, in that this isn't a problem that will go away. However, nature has an amazing power to adapt, and I think we will see species moving and evolving. I also believe that efforts to tackle climate change will be successful. I don't think they will be as successful as we might hope – targets will no doubt be missed. But that doesn't mean the effort is wasted. Every reduction to the level of warming is extremely valuable and will reduce the human and animal suffering that climate change can bring.

What advice can you offer students who want to make their practice or research environmentally friendly?

Each situation will require different actions, but often we know what these actions are yet still face barriers to doing them. I would say acknowledge those barriers and think about whether you can overcome them. This is partly about being bold and not taking the path of least resistance. If you want to go to a conference or field site by train not plane, argue your case. If you see disposable plastic being used unnecessarily, challenge this and try to think of alternatives. And at every stage, think about whether you can justify the work you're doing. Did you need that many replicates? Is each part of your experiment likely to give useful data? Are you asking an important question? There's no point in using resources unless they are likely to produce valuable results. Likewise, your time is too precious not to use it wisely.

You have also done a lot of media outreach including TEDx, Radio 4 and Newsround. What tips do you have for the successful communication of scientific and sometimes difficult subjects?

1. Practise. You can seek out opportunities, including asking the university communications team whether they need volunteers for anything.
2. Listen. This will give you an insight into whether you are being understood. Also, you may be surprised what you learn – treat science communication as a chance to engage rather than educate.
3. Tell stories. We take the life of a scientist for granted, but your experiences may be alien to others. It can be helpful to share stories of your life alongside your results.

As an artist/fiction writer, how important do you feel creativity/the creative process is to other fact-based subjects like science?

Science can be very creative, in the way we solve problems and think of alternative ways to explain what we observe. I think exploring creativity in other areas supports these skills. There are also specific benefits depending on your artform – I find drawing helps me observe the world, and writing for a wide audience makes my scientific writing easier to understand. If I had a musical talent, maybe I'd be better at identifying bird sounds. And sometimes it's just helpful to have a hobby – if you have multiple interests, it can be easier to weather the storm when one is going wrong.

More info:

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Rebecca's book *Tickets for the ark: from wasps to whales – how do we know what to save?* was published in February 2022 and is available in bookshops and online.

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