Dr Toby Pennington
Head of Tropical Diversity, Royal Botanic Garden, Edinburgh

Fascinated by tropical plants, Toby Pennington is now in his dream job researching the reasons why tropical areas are so rich in different species. His work promotes the conservation of tropical forests, especially the unique dry forests and savannas of South America.

I went straight from my local comprehensive school in Dorset to Oxford University to study Botany. There, from inspirational teaching and a student expedition to northern Bolivia, I became fascinated by the biodiversity of the tropics. I was lucky enough to gain a short-term contract to work at the Royal Botanic Gardens, Kew after I graduated, which helped to confirm my interest in tropical plants. This work at Kew helped me to set up a PhD at the University of Oxford studying the taxonomy and molecular systematics of a genus of tropical Latin American trees. The project involved a CASE placement of a year at Kew, three months fieldwork in Brazil, and almost six months at Cornell University in the USA, where I learned molecular systematics under the supervision of Professor Jeff Doyle. My time at Cornell was particularly important, as it gave me a firm grounding in the science of phylogenetics – inferring the evolutionary relationships of organisms.

I was incredibly lucky to be offered a permanent job as a Tropical Botanist at the Royal Botanic Garden Edinburgh (RBGE) before I had even submitted my PhD dissertation. This was a dream position, with freedom of choice in research direction, as well as the opportunity to teach MSc and PhD students. At RBGE I have fantastic colleagues and a supportive environment to develop a research programme in systematics and biogeography of tropical plants. My research has ultimately aimed to address one of the fundamental questions of tropical biology – how and when did the huge species numbers in the tropics arise? It is grounded in fundamental, descriptive taxonomic, inventory and phylogenetic research, which provides the foundation to address evolutionary and biogeographic questions. My work also aims to promote conservation of endangered tropical forests, especially dry forests and savannas, which receive less scientific attention than rain forests.