

Professor David Beerling pioneered investigations of the co-evolution of plants and the environment using experimental research programmes with a wide range of plant groups, theoretical models and analyses of fossil materials over the past 15 years. He was appointed to a personal chair in 2001 following an eight-year tenure as a Royal Society University Research Fellow. DJB has published over 150 papers, with research findings in *Nature*, *Science* and *PNAS*, and authored the critically acclaimed popular science book *The Emerald Planet: how plants changed Earth's history* published by OUP (2007). He was awarded a prestigious Philip Leverhulme Prize in recognition of outstanding world-class research achievements in palaeobiology in 2001. DJB has served as a member of the NERC atmospheric sciences peer review committee (2000-2003), and convened Royal Society discussion meetings on the evolution of terrestrial vegetation and the environment (*Phil. Trans. R. Soc.*, **B353**, 1998) and biosphere-atmospheric trace gas biogeochemistry (*Phil. Trans. R. Soc.*, **A365**, 2007). DJB has been principal investigator on 5 large grants and 5 small grants from NERC, securing a total grant income of over £2M, and is currently the PI of a major NERC grant investigating the role of plant and mycorrhiza evolution on rock weathering, and co-investigator on the £1.1M NERC QUEST consortium group modelling the emission and atmospheric chemistry of biogenic trace gases.

#### **Example publications:**

- Fletcher, B.J., Brentnall, S.J., Anderson, C.W, Berner, R.A. & **Beerling, D.J.** (2008) Atmospheric carbon dioxide linked with Mesozoic and early Cenozoic global climate change. *Nature Geoscience*, **1**, 43-48.
- Leake, J.R., Cameron, D.D. & Beerling, D.J.** (2008) Fungal fidelity in the myco-heterotroph-to-autotroph life cycle of Lycopodiaceae: a case of parental nurture? *New Phytologist*, **177**, 572-576.
- Beerling, D.J.**, Harfoot, M., Lomax, B.H. & Pyle, J.A. (2007) The stability of the stratospheric ozone layer during the end-Permian eruption of the Siberian Traps. *Philosophical Transactions of the Royal Society*, **A365**, 1843-1866.
- Beerling, D.J.** (2007) *The Emerald Planet. How plants changed Earth's history*. Oxford University Press, Oxford.
- Beerling, D.J.** & Fleming, A.J. (2007) Zimmermann's telome theory of megaphyll leaf evolution: a molecular and cellular critique. *Current Opinion in Plant Biology*, **10**, 4-12.
- Bowen, G.J., **Beerling, D.J.** *et al.* (2004) A humid climate state during the Palaeocene-Eocene thermal maximum. *Nature*, **432**, 495-499.
- Royer, D.L., Osborne, C.P. & **Beerling, D.J.** (2003) Carbon loss by deciduous trees in a CO<sub>2</sub>-rich ancient polar environment. *Nature*, **424**, 60-62.
- Beerling, D.J.**, Osborne, C.P. & Chaloner, W.G. (2001) Evolution of leaf-form in land plants linked to atmospheric CO<sub>2</sub> decline in the Late Palaeozoic era. *Nature*, **410**, 352-354.