## CHRISTOPHER NIGEL PAGE (1942-2022)

hristopher Page, who died on 9 December 2022, will be fondly remembered by many members of the BSBI for his lifetime work on ferns, and especially Equisetums, but perhaps less known for his significant contribution to the study of the world's conifers. I first met Chris in 1974 when I was a horticultural student at the Royal Botanic Garden Edinburgh and we were reacquainted 14 years later in 1991, when I was back at RBG Edinburgh as a full-time member of staff, working with Chris on his new initiative, the Conifer Conservation Programme.

Chris was born in Gloucester on 11 November 1942 into a family of aviation engineers. They had founded Handley Page, which started trading in 1909 as one of Britain's first aircraft manufacturing companies. In a further link to the aviation industry, Chris's father assisted in designing the first jet engine during the Second World War. This background in aviation certainly rubbed off on Chris, who learnt how to fly small aircraft and maintained a fascination for aviation throughout his life, even keeping a detailed log of his 133 long haul flights. I vividly remember sitting on a flight with Chris en-route to Santiago and witnessing his routine of assiduously noting the composition of the crew, and every last detail of the aircraft, in a small notebook. Such was his appreciation of the contribution to his research of the 67 airline companies he had flown with that he has acknowledged them all in his forthcoming book Evolution of the Arborescent Gymnosperms.

Chris always said that his interest in aircraft influenced his interest and indeed his observations of the natural world. The many recurrent engineered shapes he observed in aircraft he also saw in the natural world, especially in the fossils he collected as a boy, whether ammonites, horsetails or ferns. These impressions captured his youthful imagination and hence shaped his interest in fossils. On seeing his considerable fossil collection, the scientist Dr Jacob Bronowski, who was a friend of his father, encouraged Chris to pursue a career in science and thus he decided to study for a degree in geology at Durham



Chris Page, 2009.

University. He graduated in 1964 and completed a PhD in cytogenetics at Newcastle University in 1967. His great mentor was Dr Trevor Walker, first as his undergraduate tutor and then his PhD supervisor. Trevor's passion for propagating and cultivating ferns greatly influenced Chris in his experimental approach to the study of fern and conifer biology.

Chris took up a post-doctoral fellowship from 1968 to 1970 at the University of Queensland, Brisbane, working on Queensland pteridophytes, before returning to the UK to work at Oxford University for a year. In 1971 he was appointed head of fern and conifer research at the Royal Botanic Garden Edinburgh and this gave him the ideal opportunity to develop his great interest in ancient plant groups. To broaden his observation of conifers and ferns in the wild Chris visited Fiji, Japan, Hong Kong, New Zealand, Taiwan, western North America, western Samoa and the great jewel in the crown for endemic conifers, New Caledonia. During these trips Chris especially concentrated on making collections of seeds, spores and vegetative material and in doing so he established at RBG Edinburgh one of the finest collections of living ferns and conifers of the day. However, this did not sway him from studying ferns closer to home, resulting in regular contributors to the Pteridologist and his first major work, The Ferns of Great Britain and Ireland (1982; second edition 1997), published by Cambridge University Press. His work on Equisetum led to the description of one species and seven hybrids, including  $E. \times rothmaleri$  (1973),  $E. \times dycei$ (1981), E. × bowmanii (1989), E. × willmotii (1995) and E. × mchaffieae (2007) in Britain and Ireland. In 1988 he joined the illustrious group of authors of books in the Collins New Naturalist series. Ferns was number 74 in the series and the first purely botanical book to be published in the series for 27 years. This much sought after work is today one of the most valuable New Naturalists, with a first edition, in good condition, fetching prices in excess of £300!

One of Chris' greatest initiatives was the Conifer Conservation Programme (later the International Conifer Conservation Programme). Chris' approach was quite different to many other scientists at Edinburgh in that he had a deep interest in the cultivation of trees, and this formed an integral part of his research. An important component of the Programme was to establish a network of safe sites throughout Britain and Ireland for the cultivation of threatened conifer species, using material collected from native habitats. This network, which today comprises nearly 200 sites, has been my focus over the past 30 years and of course I have Chris to thank for this unique opportunity. His trademark characteristic of immense enthusiasm, along with the ability to explain complicated scientific processes in a lucid manner, meant that he was a very popular lecturer and supervisor of students.

During my time at Edinburgh, I travelled with Chris to many of these ex-situ conservation sites for threatened conifers, but in 1993 we also travelled together to Chile to explore the southern rainforests for conifers. Of course, it is often on these excursions that one really gets to know one's colleagues, and this visit to Chile was no exception. Chris' idiosyncratic ways included an unfortunate predisposition to accidents or to be in the wrong place at the wrong time! One of many such incidents has stayed in my mind. It happened on our second day in Santiago,

when we were walking past a fruit stall on a bustling high street. Chris' preferred dress code of a khaki safari jacket and matching trousers, together with his tall European stature, made him stand out in a crowd and he was therefore the obvious target for a street robbery. Chris put up a good fight with a group of three typically small-statured Chilean men - and the marauding mass of flailing arms and legs ended up collapsing into what was previously a neatly laidout, colourful display of fruit. Little did the assailants know that I had earlier made an executive decision that I had best carry all our money, and they ran off empty handed. Typically, Chris was very gracious and apologetic to the stall vendor, as if it was all his fault that the incident had happened at all – he even attempted to rearrange the badly damaged fruit on the stall.

However, more positive things also happened in Chile. It was a lifetime ambition for Chris to see the monkey puzzle tree in its natural habitat on the slopes of snow-clad volcanoes – as one can imagine, he was in awe of this remarkable tree. But he had another conifer on his all-time list of trees to see, *Fitzroya cupressoides*. This conifer was familiar to Chris as a rarely cultivated tree in the UK, growing up to about 18 metres tall. But in Chile he was seeing trees 60 metres tall, and some were 2000 years old or more. For Chris, an added level of excitement was seeing these stately trees in coastal rainforests that overlooked the very waters that Captain FitzRoy navigated 180 years before, on board HMS *Beagle* with one of Chris' heroes. Charles Darwin.

In 1996 Chris retired from RBG Edinburgh and spent the rest of his life living in Cornwall with his wife Clare and their daughter Tamsin. By no means did this result in Chris retiring from his devotion to ferns and conifers, indeed it gave him a greater opportunity to pursue his interests. He had a long association with the University of Exeter and in 2004 he joined their Camborne School of Mines, Penryn Campus near Falmouth and remained senior honorary research fellow at the university until June 2022. He taught environmental students about ferns, would take them on fieldwork and continued to teach part-time on the environmental science

and technology degree until 2008. He was a coauthor of Ferns, Clubmosses, Quillworts and Horsetails of Cornwall and the Isles of Scilly (2012) with Rose Murphy, Rosemary Parslow and Ian Bennallick. Chris was also a longstanding member of the Royal Geological Society of Cornwall and edited their Transactions from 1996 to 2015. He was awarded the Bolitho gold medal of the Society in 2016 to mark his contribution as editor, and served as President from 2016 to 2019. Throughout his retirement he gradually brought together his lifetime's research on conifers into a two-volume work entitled Evolution of the Arborescent Gymnosperms and just before his death in 2022 he submitted the final manuscript to Cambridge University Press. It is due for publication in 2024.

Chris will be remembered for his unique, multifaceted approach to understanding the processes that drive evolution - nothing would be off the table! He will also be remembered for his unprecedented enthusiasm and a generous approach to sharing his knowledge - all greatly inspiring to a younger generation of students. My lasting memory will be of this, but especially of his very kind and gentle nature.

Martin Gardner