

**Report of November Meeting
Royal Society
Southern Highlands Branch**

Speaker: Dr Peter Donaldson

Topic: *Sir Joseph Hooker, the Third Man in the Story of Evolution, Plant Collector and Explorer*

Dr Peter Donaldson began his lecture by asking the question, “Who was Sir Joseph Hooker, why is he one of the greatest botanists in history and how did he influence the Theory of Evolution?”

Hooker was Charles Darwin’s closest friend and confidant to whom Darwin first confided his views on evolution in 1844, fifteen years before his theories were published. Joseph wasn’t convinced at first, but he was very interested. As his interest grew over the next twelve years or so, he became a convert to Darwin’s views and subsequently one of Darwin’s greatest defenders.

Joseph was born in 1817 and died in 1911. His father, Sir William Hooker, a self-taught botanist, at one time presided over the best private herbarium in the world with over one million plants. William was appointed Director at Kew in 1841, a position he held for over 20 years. Prior to that, he was Professor of Botany at Glasgow where he taught medical students, and where he had to collect money at the door from his students. Joseph attended his lectures from the age of seven, along with his elder brother who died from TB in his twenties. Walter Fitch, an apprentice draughtsman who went on to become a celebrated botanical artist also attended these lectures. Donaldson showed many of Fitch’s drawings during the course of the lecture.

In time, Joseph became Assistant Director at Kew, and finally Director, a position he held for over 20 years as his father before him. The Hookers built Kew into the renowned establishment we see today, with William’s contribution clearly evident in the buildings, herbarium and grounds, and Joseph’s in its scientific base.

Joseph Hooker was a great admirer of Cook, Banks and Darwin. He was only eight years younger than Darwin, and wanted to undertake similar excursions to Darwin’s. Joseph graduated as a doctor and at 21 obtained the post of Assistant Surgeon and Botanist (second to the Naturalist, John McCormick) on the Ross Antarctic Expedition. They left in 1839 and were away for four years.

When Joseph returned to England, he found that he had become quite well known. Hooker met Darwin within a month, and it was not long before Darwin confided his

thoughts on evolution to him, saying that it was like confessing to a murder. Although Hooker was not convinced at that time, he was indeed interested because he had seen the great similarities and differences in plants around the Southern Hemisphere. Even though he was a creationist he was pondering the variability of species.

Joseph's first book, *The Flora of Antarctica*, was published in 1837. In fact it was a study of the subantarctic flora, where Joseph made exhaustive lists of plants and noted how many of the Fuegian plants were related to those far away such as on Kerguelans land half way around the world. The theory of continental drift was unknown at that time, and Joseph's data prompted him to suggest the possibility of a land bridge connecting the areas where similar plants were being found.

Dr Peter Donaldson ended his lecture in dramatic fashion. The audience was treated to a theatrical re-enactment of parts of the Oxford Debate held on 30th June 1860 by the British Association for the Advancement of Science. From then on, scientists were much more prepared to stand up for the Theory of Evolution when confronted by the preconceived notions of religion.

Anne Wood