William Mitten (1819 – 1906)

William Mitten was born at Hurstpierpoint, Sussex, England, on 30 November 1819, the son of William Mitten (1790–1847) who for many years was butler at Danny House, and his wife Elizabeth (née Pett). Educated at Lewes, William junior was apprenticed to a pharmacist in the town and developed an early interest in natural history. Lichenologist William Borer (1781–1862), his neighbour at Hurstpierpoint, encouraged him to concentrate his botanical interest on mosses, and gave him a high quality microscope and access to his library and herbarium, and probably introduced him to William Jackson Hooker when he left Lewes to assist a chemist in London. He was still there in May 1843 when his discovery near Erith of the moss *Aulacamnium androgynum* in fruit (a rare occurrence in Europe) was recorded, but returned to Hurstpierpoint soon afterwards.

In 1844 Mitten married Ann (or Annie) Jordan in Abbot Ripton, Huntingdonshire, and their four daughters were born in Hurstpierpoint: Annie (1846), Rose (1848), Flora (1850) and Bessie (1854). With the use of Borrer's facilities, Mitten added a number of species, including *Weissia mittenii,* to the British list and provided a valuable service to individuals and institutes wanting names and descriptions for specimens collected overseas. In 1849 Hooker offered him curatorship of the herbarium at Kew, but by then Mitten had a young family to support, and he continued in business as a pharmacist, stationer and postcard publisher in Hurstpierpoint until his death. However, for many years the collections of bryophytes received at Kew from all over the world were passed on to him for identification and description.

When the Yorkshire botanist Richard Spruce followed naturalists Alfred Russel Wallace and Henry Bates to South America in 1849, they crossed paths often and became good friends. After 15 years of constant botanical exploration of Amazonia, Spruce moved from London to Hurstpierpont to be near Mitten, who had undertaken to work on his bryological collections, most of which would be sold in sets to subscribers to finance his travels. The 650-page work was published as the *Journal of the Linnean Society* in 1869. Wallace, visiting Spruce at Hurstpierpoint in the summer of 1864, was introduced to Mitten; he became intimate with the family, enchanted by Mitten's garden and the wild flowers (including orchids) nearby, and in April 1866 married his eldest daughter Annie.

For many years Mitten's work precluded botanising in the field except for on Sundays, but in 1852 the first instalment of his (uncompleted) list of mosses and liverworts observed in Sussex was published, and a list of British mosses was issued in 1866.

He also wrote the sections on liverworts in Hooker's *Flora Novea-Zelandiae, Flora Tasmaniae* and *Handbook of the New Zealand Flora* (1867). After his daughter Flora relieved him of some business duties, he made two botanising trips to Switzerland: in 1881 with his good friend Bishop James Hannington (later killed in Uganda), and in 1895 with his son-in-law (driven home early by "swarms of blood-sucking flies"). William Mitten died, aged 86, on 27 July 1906, leaving his wife, aged 97, three unmarried daughters, who continued to live at the family home "Treeps" until at least 1911, and his daughter Flora, who succeeded him in the business. He was an associate of the Linnean Society of London from 1847, and an honorary member of the New Zealand Institute, and is commemorated in the Australasian moss *Mittenia plumosa* and at least two indigenous liverwort species.

Cryptolophocolea mitteniana

A leafy liverwort in Lopholocoleaceae, perhaps the most widespread of all liverwort families in New Zealand, *Cryptolophocolea mitteniana* was first collected in 1885 near Norsewood, Hawkes Bay, and described (as *Isotachis mitteniana*) in 1889, by William Colenso. Members of the family grow mainly in shade, especially in bush country, on streamsides, banks or rotten logs. The stems are usually prostrate, with spreading lateral leaves and usually much smaller underleaves, seen only with a hand lens or microscope. The sporophyte is borne in a leafy perianth. The living plant is green, but tends to brown when dry.

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