

RSP: Papers relating to Richard Spruce (1817-1893)

Immediate Source of Acquisition:

Presented by M.B. Slater (Spruce's executor) in 1908:

RSP/1/2 : Journals and uses of Amazon plants (mss I) : c.1850s
RSP/1/3 : Journals and uses of Amazon plants (mss II) : c.1850s
RSP/1/4 : Notes on Mosses c.1840s-1879 and Journals c.1857-1860
RSP/1/5 : Plantae Amazonicae No.s 267-1240 : c.Oct 1849-Jan 1851
RSP/1/6 : Plantae Amazonicae No.s 1241-3850 : c.Jan 1851-Feb 1855
RSP/1/7 : Plantae Andinae No.s 3851-5003 : c.Mar 1855-July 1857
RSP/1/8 : Plantae Andinae No.s 5004-6580 : c.July 1857-Apr 1861

The provenance of the remaining volumes is uncertain.

Extent: 3 series, 13 files

Date Range: c.1841-1934

Creator: Spruce, Richard (1817-1893)

Scope/Content:

This collection comprises 3 series. The first series (RSP/1) contains volumes relating to expeditions that Richard Spruce was involved in and the plants that he collected. The second (RSP/2) is a series of volumes of correspondence to and from Spruce including a number of other botanical papers. The third series (RSP/3) contains published notes and articles relating to the production of cinchona and cotton.

Administrative/Biographical History:

Richard Spruce, born Sept. 10 1817; died Dec. 28, 1893

Richard Spruce was born on 10 September 1817 in the village of Ganthorpe, Yorkshire. Spruce's father (also named Richard) was the schoolmaster at Ganthorpe and his mother, Ann, was one of the Etty family, a relative of the painter William Etty. His mother died while he was young, and when he was about fourteen his father married again, and had a family of eight daughters, only two of whom survived their half-brother.

Spruce appears to have developed a love of nature from an early age and, at the age of sixteen, had drawn up an alphabetical list of all the plants (403 species) that he had found around Ganthorpe. Three years later he had drawn up a *List of the Flora of the Malton District*, containing 485 species of flowering plants. Several of Spruce's localities for the rarer plants are given in Baines's *Flora of Yorkshire*, published in 1840. It is clear that he also studied plants carefully and this is illustrated by the fact that in 1841 he discovered, and identified as a new British plant, the very rare sedge *Carex paradoxa*. He had also now begun the study of mosses, since in the same year he found a moss new to Britain, *Leskea fulvinata*, previously known only from Lapland.

Spruce was educated by his father who initially helped him to follow his own profession. He learnt Latin and Greek and appears to have had a natural aptitude for languages, since he not only taught himself to read and write French fairly well, but later learnt Portuguese and Spanish as well as gaining some knowledge of three different Indian languages - the Lingoa Geral, Barré, and Quichua. At 20, he left home to become tutor in a school at Haxby and, at the end of 1839, he

obtained the post of mathematical master at the Collegiate School at York, which he retained until the school closed in 1844. During this time he suffered frequent bouts of the ill health from which he was to suffer for the rest of his life.

In 1841, a monthly magazine, *The Phytologist*, was started for British Botany, and Spruce contributed to it numerous accounts of his botanical excursions and notes on rare plants. His paper on the Musci and Hepaticae of Teesdale showed him to be one of the most observant discoverers of rare species. In Baines's *Flora of Yorkshire* (1840) only four mosses were recorded from Teesdale, though no doubt many more had been collected. Spruce at once raised the number to 167 mosses and 41 hepaticae, of which six mosses and one Jungermannia were new to Britain. In April 1845 he published in the London Journal of Botany descriptions of twenty-three new British mosses, of which about half were discovered by himself and the remainder by William Borrer and other botanists. In the same year he published, in *The Phytologist*, his *List of the Musci and Hepaticae of Yorkshire*, in which he recorded no less than 48 mosses new to the English Flora and 33 others new to that of Yorkshire.

In the latter part of 1844, with the loss of his teaching post, Spruce's future was very unsettled. A plant agency in London and the curatorship of a colonial botanical garden were rejected as either unsuitable or uncertain of attainment. Plant-collecting in Spain was suggested but, at that time, considered too dangerous. Eventually, in December 1844, an expedition to the Pyrenees was agreed and he set out in April 1845. He reached Pau early in May, and stayed there until the following March, collecting and studying the flowers and mosses of the region. He returned to England in April 1846, and spent the remainder of the year naming, arranging and distributing his Pyrenean collections.

Over the next two years, he worked on *The Musci and Hepaticae of the Pyrenees*, which was published in the *Transactions* of the Botanical Society of Edinburgh after his departure for South America. It gives the names of all the species carefully identified, describes fully all that were new or doubtful, and gives particulars of the local and geographical distribution of each. A general account of his whole excursion was published in the London Journal of Botany for 1846, under the title *Notes on the Botany of the Pyrenees*.

When in London in September 1848, Spruce decided to undertake the botanical exploration of the Amazon valley and he sailed on June 7, 1849. George Bentham agreed to receive all his botanical collections, name and sort them, send them to the various subscribers in Great Britain, as well as in different parts of Europe, to collect the subscriptions and keep all accounts, in return for which invaluable services he was to receive the first (complete) set of the plants collected.

On July 12th 1849, Spruce's ship, The Britannia, docked at Para and Spruce began his South American exploration which would last for fifteen years. From Para, Spruce sailed on 10th October up the Amazon to Santarem, a journey of 17 days. He remained here for almost a year, exploring and collecting in extremely adverse conditions. His journeys continued – in October 1850 he travelled to Manaos, then up the Rio Negro to Sao Gabriel on the Orinoco between November 1851 and March 1852 followed by a collecting expedition in the forest around the river Vaupes. In March 1853, he left for San Carlos in Venezuela where he remained for five months. In the small settlement of San Fernando, Spruce suffered from a long and serious bout of fever which left him exhausted and, on the way back to Manaos, he successfully foiled an attempt by his boatmen to murder him and steal his possessions. Once back in Manaos, he planned a trip to Peru, travelling up the Amazon and Huallaga rivers to Tarapoto in the Andes of Maynas where he remained from June 1855 to March 1857. During his time at Tarapoto, Spruce collected over 1000 specimens of flowering plants in addition to hundreds of specimens of mosses and hepaticae.

His next journey was to Banos in Ecuador, a journey of 100 days by river and on foot. He explored this volcanic area for six months and then moved on to make his base at Ambato for two and a half years. It was here, in April 1860, that he suffered a physical breakdown, suffering paralysis and pain in his back and legs. Nevertheless, he set out six weeks later to collect seed from Cinchona trees

which became the foundation of the plantations in India and Ceylon which produced quinine, bringing relief to thousands of malaria sufferers. Spruce's last expedition in South America was to Payta in northern Peru. From here he was carried by litter to Piura where he remained from January 1863 to May 1864 when he embarked for Europe.

After his return from South America in June 1864, Spruce continued to be plagued by ill health which affected his ability to work, the cause of which was not discovered until four years after his return by which time a cure was impossible. Despite this, he succeeded in producing a great deal of botanical work, including the study of the Palms of the Amazon valley and of equatorial South America, which resulted in a paper in the *Journal of the Linnean Society*.

But his greatest work, which has established his reputation among the botanists of the world, is his massive volume on the *Hepaticae of the Amazon and the Andes of Peru and Ecuador*. This appeared in 1885, as a volume of the *Transactions* of the Botanical Society of Edinburgh. It contains very full descriptions of more than 700 species and varieties distributed in 43 genera and a large number of new sub-genera, all precisely characterised and defined. Of these 700 species nearly 500 were collected by him and of these more than 400 were quite new to the science of botany.

The whole of Spruce's Mosses were placed in the hands of Mr. William Mitten for classification, description of new species and distribution; and were all included in this botanist's great work on South American Mosses, published by the Linnean Society in 1867. Spruce's work on the Hepaticae brought him a large correspondence from every part of the world, and for the remainder of his life he was sufficiently occupied with this, with the determination of specimens sent him, and with a few special papers, among which were the description of a new hepatic from Killarney in the *Journal of Botany* in 1887 and a paper in the *Memoirs* of the Torrey Botanical Club on a collection made in the Andes of Bolivia. After Spruce's work on the Hepaticae was published, he was occupied in the task of sorting out and preparing his immense collection of South American Hepaticae into sets of species for distribution which was completed and twenty five sets sent off before the end of 1892.

Richard Spruce died on 28 December 1893 after an attack of influenza. He was buried at Terrington beside his father and mother, in accordance with his own directions.

Access conditions: unrestricted – surrogates to be used where available.

Surrogates:

Photocopies of RSP/2/1 : Letters from Spruce to William Borrer (1842-1848). In addition, there is a second volume containing handwritten copies of these letters. (**Location ref. L08/2**)

Microfilm copies of the following volumes are available, all films are negative 35mm copies unless otherwise stated:

- RSP/1/2 : Journals and uses of Amazon plants (mss I) : c.1850s
- RSP/1/3 : Journals and uses of Amazon plants (mss II) : c.1850s
- RSP/1/4 : Notes on Mosses c.1840s-1879 and Journals c.1857-1860
- RSP/1/5 : Plantae Amazonicae No.s 267-1240 : c.Oct 1849-Jan 1851
- RSP/1/6 : Plantae Amazonicae No.s 1241-3850 : c.Jan 1851-Feb 1855
- RSP/1/7 : Plantae Andinae No.s 3851-5003 : c.Mar 1855-July 1857
- RSP/1/8 : Plantae Andinae No.s 5004-6580 : c.July 1857-Apr 1861

CD copies of the following volumes are also available:

RSP/1/7 : Plantae Andinae No.s 3851-5003 : c.Mar 1855-July 1857

RSP/1/8 : Plantae Andinae No.s 5004-6580 : c.July 1857-Apr 1861

(Location ref. KG7)

Series 1 : Expeditions and Collecting Papers 1841-1861

RSP/1 : Expeditions and Collecting Papers 1841-1861

This series contains manuscript volumes compiled on various expeditions undertaken by Spruce including journals and botanical notes. The volumes are primarily concerned with his Amazonian expedition but also cover his time in the Pyrenees and Yorkshire.

RSP/1/1 : List of Botanical Excursions : c.19 June 1841 – 28 May 1864

This is a photocopy of an original notebook held by the Linnean Society. It contains dated lists of botanical excursions made by Spruce covering Yorkshire and also his Pyrenean and Amazonian expeditions. **(Location ref. L17/1)**

RSP/1/2 : Journals and uses of Amazon plants (mss I) : c.1850s

This bound volume contains manuscript journals of Spruce's expedition from c.Jul 1851-Jul 1855. This covers his voyage on the Rio Negro to his arrival at Tarapoto. It also contains notes on the uses of Amazon plants (which are continued in RSP/1/3 mss II) and on the Musci & Hepaticae of the Amazon and the Andes. **(Location ref. S11/3)**

RSP/1/3 : Journals and uses of Amazon plants (mss II) : c.1850s

This is an indexed bound volume containing manuscript notes on a variety of subjects including the uses of Amazon plants (continued from RSP/1/2 mss I), botanic and scientific observations, geography, languages and indigenous peoples. The volume is separated into mss II and mss III. **(Location ref. S11/3)**

RSP/1/4 : Notes on Mosses and S American Journal c.1840-1879

This volume is a double-ended manuscript notebook. From one end, the notebook contains notes on South American mosses in the herbarium of Dr. Thomas Taylor (c.1848), notes on mosses in the herbaria of Linnaeus and of Sir J.E. Smith (c.1840s) and Spruce's journal including his voyage from Tarapoto in Peru to Banos in Ecuador (22 Mar – 1 July 1857). In addition there is a brief journal of an excursion to a Cinchona forest at the western foot of Chimborazo (June 1860). At the other end of the notebook there are more notes on the mosses in his herbarium (c.1847 – 1879). **(Location ref. S11/3)**

RSP/1/5 : Plantae Amazonicae No.s 267-1240 : c.Oct 1849-Jan 1851

This bound volume contains manuscript notes on the plants collected by Spruce during his expedition to the Amazon from his arrival in Para to his voyage up the Rio Negro (specimen numbers 267-1240). **(Location ref. S11/3)**

RSP/1/6 : Plantae Amazonicae No.s 1241-3850 : c.Jan 1851-Feb 1855

This bound volume contains manuscript notes on the plants collected by Spruce during his expedition to the Amazon carrying on his voyage up the Rio Negro and finishing at Taruma (specimen numbers 1241-3850).

(Location ref. S11/3)

RSP/1/7 : Plantae Andinae No.s 3851-5003 : c.Mar 1855-July 1857

This bound volume contains manuscript notes on the plants collected by Spruce during his expedition to the Amazon from his journey on the Rio Solimoes to his time in Tarapoto and Banos (specimen numbers 3851-5003).

(Location ref. S11/3)

RSP/1/8 : Plantae Andinae No.s 5004-6580 : c.July 1857-Apr 1861

This bound volume contains manuscript notes on the plants collected by Spruce during his expedition to the Amazon from Banos to his time in Ambato and the surrounding area (specimen numbers 5004-6580). (Location ref. S11/3)

Series 2 : Correspondence 1842-1934

RSP/2 : Correspondence 1842-1934

This series contains volumes of original letters both to and from Spruce. Correspondents include George Bentham and William Hooker. One volume also includes notes on the introduction of Cinchona to India and other botanical matters and also a diploma.

RSP/2/1 : Letters to William Borrer and Miscellaneous Notes : c.1842 - 1848

This bound volume contains original letters (31 Aug 1842 – 5 Aug 1848) from Spruce written from his home in Yorkshire and from his expedition to the Pyrenees (27 April 1845 – 14 April 1846). The letters are primarily concerned with botanical subjects but also mention family matters including the deaths of three of Spruce's sisters in April 1845.

The volume also contains a number of pages of notes written both in English and Spanish. There is a rough covering page entitled "Notes for Introduction to Hepatica Amazonicae and a few loose notes" but it is unclear how many of the subsequent pages this covers. There are also notes on the Theory of Evolution and a draft of a letter to G.P. Pritchett, agent of the Ecuador Land Company (Location ref. L17/1)

RSP/2/2 : Correspondence : c.1845 - 1880

This is an indexed set of mounted letters: A letter from the Foreign Office to William Hooker regarding Spruce's trip to South America (14 Jan 1854); Letters to George Bentham from both his Pyrenean and Amazonian expeditions, the latter giving detailed accounts of his experiences. They continue after his return to England, regarding his botanical work and writing (c.8 Feb 1845-29 May 1878); Some botanical notes on collections (c.1860s); Letters to Joseph Hooker primarily on the distribution of plants (15 Nov 1864-9 Aug 1880); A printed report on the expedition to procure Cinchona (1860); Papers relating to the introduction of the Cinchona into India (1860); A diploma from the Academiae Germanicae Naturae Curiosorum (1864); Notes on plants collected on the Rio Vaupes (1852). (Location ref. L17/1)

RSP/2/3 : Letters to R. Spruce : c.1842 – 19 Jan 1934

This bound, indexed volume contains original letters to Richard Spruce, dated 1842-1890, from various individuals including George Bentham and William Hooker. The first letter in the volume, dated 19 Jan 1934, is from W.G. Wallace to the librarian at Royal Botanic Gardens, Kew, regarding the presentation of Spruce's *List of Botanical Excursions* to the Linnean Society. The letters from Hooker concern the arrangements for Spruce's trip to the Amazon and the subsequent receipt of specimens. Likewise, those from Bentham also relate to his receipt and distribution of specimens sent by Spruce from that expedition. Letters from E. Bescherelle are in French, those from A. Destruge are in Spanish and the letter from K. Loitlesberger is in German. The volume also contains letters from J. Miers, W. Mitten and W.W. Saunders. **(Location ref. L17/1)**

Series 3 : Published Works c. 1850s-1864

RSP/3 : Published Works c. 1850s-1864

This series contains printed and published articles by Spruce and others concerning the cultivation of Cinchona and cotton.

RSP/3/1 : Cinchona Pamphlets : c.1850s - 1860s

This bound, indexed volume contains a number of printed articles by Spruce, Robert Cross, J.E. Howard and Sir Clements Markham, some of which had been previously published in various journals. These articles are concerned with the discovery and procurement of Cinchona, used in the production of quinine, in Peru and Equador. Howard's articles provide a more scientific look at the plant. The volume also includes some maps and hand written notes. At the back are some translations of words in the native tongue of the area. **(Location ref. S11/3)**

RSP/3/2 : Notes on the valleys of Piura and Chira in northern Peru and on the cultivation of cotton therein : 1864

This printed volume contains Spruce's notes on various aspects of the areas of Piura and Chira including topography and mineralogy, climate, vegetation and agriculture, specifically cotton growing. **(Location ref. S11/3 - Fragile)**

Related Material at Kew:

Letters from Spruce contained in the Directors' Correspondence series (Volume/ff.):

XIII/125; XV/148-149; XXII/225-229; XXIII/610-617; XXIV/539-544; XXV/481-485; XXVI/477-488;
XXVIII/252-259; XLII/400-406; LXV/279-293; LXX/326-329; LXXI/359-378

Material held elsewhere:

Notebook: List of Botanical Excursions: c.19 June 1841 – 28 May 1864 held by the Linnean Society.

Papers relating to South America : 1849-1862 held by the Royal Geographical Society.

Correspondence, journal and accounts held by Manchester Archives and Local Studies.

Drawings of Brazil: c.1850 held by the Royal Society.

Correspondence with Daniel Hanbury: 1856-1875 held by the Royal Pharmaceutical Society.