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## Joseph Hooker Takes a "Fixed Post": Transmutation and the "Present Unsatisfactory State of Systematic Botany", 1844–1860

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Abstract. Joseph Hooker first learned that Charles Darwin believed in the transmutation of species in 1844. For the next 14 years, Hooker remained a "nonconsenter" to Darwin's views, resolving to keep the question of species origin "subservient to Botany instead of Botany to it, as must be the true relation." Hooker placed particular emphasis on the need for any theory of species origin to support the broad taxonomic delimitation of species, a highly contentious issue. His always provisional support for special creation waned during the 1850s as he lost faith in its expediency for coordinating the study of plant geography, systematics and physiology. In 1858, Hooker embraced Darwin's "considerable revolution in natural history," but only after Darwin had carefully molded his transmutationism to meet Hooker's exacting specifications.

Keywords: biogeography, Charles Darwin, Joseph Hooker, principle of divergence, special creation, species delimitation, systematic botany, transmutation (evolution)

"And now for species. To begin, I do think it a most fair & most profitable subject for discussion, I have no formed opinion of my own on the subject, I argue for immutability, till I see cause to take a fixed post. A knowledge of Botany alone will never clear up the question & alas I can bring nothing else to bear upon it, my Geology is nil: & thus you see I am ever ready to make it subservient to Botany instead of Botany to it, as must be the true relation."

Joseph Hooker to Charles Darwin, 14 September 1845<sup>1</sup>

When awarding the botanist Joseph Hooker the Royal Medal in 1854, the Earl of Rosse, the President of the Royal Society, praised him for "investigat[ing] critically one of the most difficult questions of natural science, which is now acquiring the prominence to which it is so well

<sup>&</sup>lt;sup>1</sup> (*The Correspondence of Charles Darwin* is abbreviated *CCD* throughout.) *CCD* 3: 254.

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entitled, – I mean the question of the origin and distribution of species." Unlike by implication most others who had addressed these questions, Hooker reassuringly possessed "moderation," "a cautious spirit of induction" and "a sagacious perception of the requirements of natural science."<sup>2</sup> No one at the time realized that Hooker also had been long engaged privately in a friendly but intense discussion with Charles Darwin on these charged questions.

The two men became correspondents in 1843 when John Stevens Henslow arranged to have the bulk of Darwin's HMS *Beagle* plants transferred to Hooker for description. Darwin was so impressed with Hooker that he revealed his belief in transmutation to his younger colleague in early 1844, famously admitting that "it is like confessing a murder."<sup>3</sup> To Darwin's delight and relief, Hooker responded serenely that he would be delighted to hear Darwin's ideas, "as no presently conceived opinions satisfy me on the subject."<sup>4</sup> This response sealed a relationship which, as Janet Browne notes, would draw the two men as close as brothers.<sup>5</sup> While debating species placed strain on many of Darwin's other friendships, his sparring with Hooker served to deepen mutual affection.

Hooker's two major methodological works from the 1850s – the Introductory Essays to *Flora Novæ-Zelandiæ* (1853) and *Flora Indica* (1855, written with Thomas Thomson) – argued firmly in favor of special creation. It would a mistake to interpret Hooker and Darwin's disagreement based on two competing theories of species origins, however. Hooker self-consciously charted a course between dogmatism and vagueness: endorsing special creation because he considered it best suited to the practical and philosophical requirements of botany, but refusing to accept it as settled doctrine.<sup>6</sup> As he put it to Darwin in 1858.

My great desire was to put every possible objection [to your theory] as strongly as I could. I did not feel myself a dissenter from or opponent to your views, so much as a non consenter to them in the present state of my knowledge, nor till you had weighed my objections.<sup>7</sup>

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<sup>&</sup>lt;sup>2</sup> Parsons, 1854, pp. 261–262.

<sup>&</sup>lt;sup>3</sup> CD to JDH, [11 January 1844], *CCD* 3: 2. For accounts of Darwin "confessing a murder," see Browne, 1995, pp. 451–453; Colp, 1986; Desmond and Moore, 1991, pp. 313–336; Porter, 1993.

<sup>&</sup>lt;sup>4</sup> JDH to CD, 29 January 1844 and CD to JDH, 23 February [1844], CCD, 3: 7, 11.

<sup>&</sup>lt;sup>5</sup> Browne, 2002, pp. 242–243.

<sup>&</sup>lt;sup>6</sup> Hooker, 1853, p. ii.

<sup>&</sup>lt;sup>7</sup> JDH to CD, 13–15 July 1858, CCD 7: 132.