This article was downloaded by: [University of Arizona]
On: 05 February 2015, At: 17:13
Publisher: Taylor & Francis
Informa Ltd Registered in England and Wales Registered Number:
1072954 Registered office: Mortimer House, 37-41 Mortimer Street,
London W1T 3JH, UK

Transactions of the Botanical Society of Edinburgh

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/tped18>

III. Biography of Dr William Nichol

Professor Balfour

Published online: 01 Dec 2010.

To cite this article: Professor Balfour (1860) III. Biography of Dr William Nichol, Transactions of the Botanical Society of Edinburgh, 6:1-4, 290-292, DOI: [10.1080/03746606009467748](https://doi.org/10.1080/03746606009467748)

To link to this article: <http://dx.doi.org/10.1080/03746606009467748>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

test as sentence of death, and, if in their power, making their escape and going into exile. He did not think the suggestion that the larger dose producing vomiting was the true explanation why some escaped while others did not. In one case which had come under his own notice a short time ago, a woman, who was accused of injuring her child by witchcraft, came in from a distance strong in innocence, and demanded to have the ordeal administered. She ate twenty-four beans and did not die. Next day another woman, encouraged by her escape, underwent the ordeal, and she ate twenty-two beans and died. The difference in quantity here was too slight to affect the result. He rather thought it was from the mode of preparing the beans that the different results followed. The beans were steeped before being eaten; and as the fetish man had the preparation of them, he could, if he chose, boil all the poison, or much of it, out of them before administering them.

III. *Biography of Dr William Nichol.* By Professor BALFOUR.

Dr Balfour remarked—The painful duty devolves on me this evening of recording the death of Dr William Nichol, one of the Fellows of the Botanical Society. This melancholy event took place at Alexandria, on the 7th of May 1859, while he was on his passage to India, to join Her Majesty's service there. Dr Nichol was the son of the late Walter Nichol, LL.D., for many years a successful teacher of Mathematics in Edinburgh. I was one of his father's pupils. I am indebted to his friend Mr William Millar for some particulars in regard to the early life of Dr William Nichol. He was born in March 1836, and died, therefore, at the early age of twenty-three. He received his school education in the Edinburgh Institution, under the superintendence of Mr George Murray, a cousin of his father's. He was a diligent scholar, and gained prizes for Latin and Greek. From his earliest youth he evinced a desire for scientific knowledge, and received from his father encouragement in the prosecution of science. He pursued with much zeal mechanics and conchology, and acquired considerable proficiency in both. He also applied himself to the study of modern languages, and had a fair knowledge of German, French, and Italian. His taste, however, did not lie in the direction of languages, and he acquired them chiefly with the view of opening up means for the study of science. He always exhibited a remarkable desire to excel in anything to which he turned his mind. He became a student of the University of Edinburgh in 1850, at the age of sixteen.

After attending the literary and mathematical classes, he commenced the study of medicine in the session 1853-54. I became acquainted with him in 1854, when he entered the botanical class. In that year he gained the first prize in the junior division of the class, for excellency in the competitive examinations. He became ardently fond of botany, and directed his attention in a special manner to the more difficult department of cryptogamic botany. In muscology he became a proficient, and added many species of mosses to the flora of Scotland. He attended the botanical class again in 1855, and gained the highest prize in the senior division of the class. He also entered as a pupil in 1856. During these three years, as well as subsequently, I had ample opportunities of observing his zeal and enthusiasm, as well as his great power of diagnosis. I was satisfied that he was well fitted for occupying a situation of importance in the botanical world. Accordingly, after he had passed his examination for M.D. and surgeon in 1857, I recommended him to Sir William Hooker for a botanical expedition. The situation, however, was filled up before Dr Nichol's application was received. By the advice of Sir William, Dr Nichol became a candidate for a medical appointment in the navy, and after passing his examination he was sent to Portsmouth. His health, however, began to suffer at this time, and he was compelled to give up work for a time. The unexpected death of his father afterwards led to an alteration of his plans, and he resigned his appointment in the navy. The death of a sister afterwards affected him much. These calamities seem to have operated painfully on his mind, and for a time he was unfit for much exertion; still he continued to prosecute his favourite studies in his own quiet way. His habits were naturally retiring, and his manner was such as not to secure for him at once that reception which his merits deserved. Had he possessed more confidence, and advanced his claims with greater vigour, he would have had great success. As his health and spirits improved, he became a candidate for an Indian medical appointment, and stood high on the list. He made preparations for his departure, and left Edinburgh about the beginning of April. At the time he left he had just recovered from an attack of gastric fever. This illness seems to have debilitated him much, and probably led to

the fatal result. Dr Nichol sailed in the Pera, and by the time the vessel reached Alexandria he was dangerously ill. On the 5th of May, Dr F. F. Ossler of Alexandria writes that he had been called to see him when he was landed from the Pera, and that he found him in a very precarious state indeed. All attention was paid to him by the surgeon of the vessel during the passage, as well as by Dr Ossler. He had suffered much from sea-sickness during the voyage, and he was brought on shore at Alexandria, labouring under typhoid fever, which carried him off in a few days, notwithstanding all the kind medical attention of Dr Ossler.

The Society agreed to record on their minutes their sense of the loss which they had sustained in the death of Dr Nichol, and to convey their sympathy to his afflicted mother.

IV. *Remarks on the Temperature of Plants.* By M. BECQUEREL.

M. Becquerel has recently made observations on the temperature of plants, by which he shows that the calorific condition of plants depends on the air, and that, like the atmosphere, it is liable to diurnal, monthly, and annual variations.

The first experiments on the heat of plants which attracted the attention of botanists were those of Hunter, published in the "Philosophical Transactions" for 1775 and 1778. He simply introduced a thermometer into a hole made in the trunk of a tree, protecting the stem of the thermometer from external influences by means of a box filled with wool, through which the thermometer passed. This arrangement did not prevent the entrance of air and water, and hence resulted errors in the observations. The experiments were also of a very limited extent, and no indication is given of the hours of the day when they were made. Hunter concluded that in winter trees had a temperature above that of the air.

In 1783, Schoeffs made experiments on the subject in New York under still less favourable conditions, since he operated on trees of different diameters and of different kinds, with thermometers which he introduced during some minutes only into cavities prepared for the purpose. The observations made by him show only that the temperature of trees was sometimes higher, sometimes lower, than that of the air.

At Geneva, from 1796 to 1800, and for some years afterwards, Pictet and Maurice made a continuous series of observations on temperature, at sunrise, at 2 P.M., and at sunset, on a horse-chestnut, which was about 1 foot 9 inches in diameter.

The cavity in which the thermometer was placed was filled with melted tallow, in order to prevent the access of air and water. They made during the period mentioned 11,000 observations, the results of which were registered by them without any discussion of the subject. M. Becquerel has taken up these observations, and has drawn conclusions from them. He has also constructed curves representing the results.