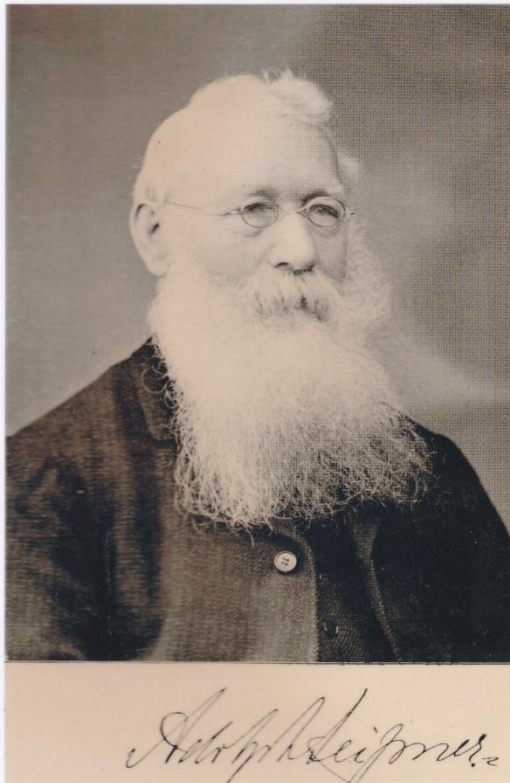


Plant recording using a grid system in Mid-Victorian England: Bristol Botany in 1868

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1. The originator of the scheme



Adolph Leipner (1827-94) of the Bristol Naturalists' Society devised a scheme in 1864 for recording fauna and flora, using a circular map of the nine miles from the Bristol Guildhall, divided into square miles for that purpose.

2. The scheme plan

BRISTOL NATURALISTS SOCIETY.

From the "BRISTOL DAILY POST" of April 11th, 1864.

The seventh meeting of this session was held on Thursday evening last, when upwards of eighty members and friends, including several ladies, attended, and Mr. William Sanders, the president, occupied the chair.

The usual routine business having been gone through, Mr. A. LEIPNER, the honorary secretary, explained a scheme which he had devised for a systematic registration of the objects of natural history, in the widest sense of the term, in the neighbourhood of Bristol, in such a manner that the work done by the various members might be collected and systematised, with a view to the ultimate publication of a complete flora and fauna of the Bristol district, a wish for which had often been expressed, and which was a work especially suited for such a society. Mr. Leipner detailed at some length the manner in which each and every contributor would have his full share of acknowledgment for his labours, however small, and, consequently, also of responsibility, for the accuracy of his statements. The scheme embraced, besides, a plan for utilising the labours of the past, in the shape of the various collections in possession of members or their friends, provided the locality and year of discovery were given; and Mr. Leipner stated that he thought a fundamental rule should be that, of such animals, only such should be recorded as were found living; of plants, only those found growing; and of geological and mineralogical specimens, only such as were found *in situ*. Mr. Leipner concluded by proposing the four following resolutions, which, after some discussion, were carried unanimously:—

1. That the members of the Bristol Naturalists' Society undertake to register all the objects of natural history found by them, with a view of publishing the result.
2. That the society intends to extend its operations over the Bristol coal-field.
3. That the locality where the object is found shall be given in the number of the square mile on a map to be thus divided, instead of the usual one of the town or village.
4. That the expenses for printing the papers for registration, as well as the maps required, shall be defrayed from the funds of the society, unless paid for by the members requiring them.

3. The sale of grid maps

Bristol Naturalists' Society.

SIR,

I beg to inform you, that in accordance with the opinion expressed at the Annual Meeting on the 5th May, 1864, the Council have taken into consideration the range of country, over which the attention of those Members, who may be willing to assist in compiling the account of the Natural History of this neighbourhood, should be limited: and consider it desirable, that the attention of Members be first directed to the exploration of the district lying within a radius of 9 miles around Bristol, and corresponding with the area of the small circular maps of this tract of country, which will be divided by lines into single-numbered square miles. The Council, at the same time, do not wish to discourage those Members, who may be able and willing to make returns from more distant localities; and wish it to be understood, that the Natural History of such places as Aust, Clevedon, Weston-super-Mare, &c., will be published separately as Appendices to the general Work, if sufficient observations be recorded to justify their publication; and that even *isolated* observations made outside the 9 miles radius, yet sufficiently belonging to the Natural History of the district, will be published in the body of the Work, provided their occurrence has not been elsewhere recorded.

The price of the maps divided into numbered square miles is *plain* 1s. 6d. each, *mounted on cloth and folded*, 3s. each, and can be had only by application to the Honorary Secretary, from whom also the printed registering papers may be obtained.

An Entomological Section having been formed, Members wishing to join it, are requested to apply to the Honorary Secretary, who will communicate all requisite particulars.

It is further in contemplation to form sections for Botany and Geology, in which sections the co-operation of Members is particularly requested.

The Honorary Secretary is desirous of receiving Names of Members, in order that he may arrange the details of operation as soon as possible.

I am, Sir,

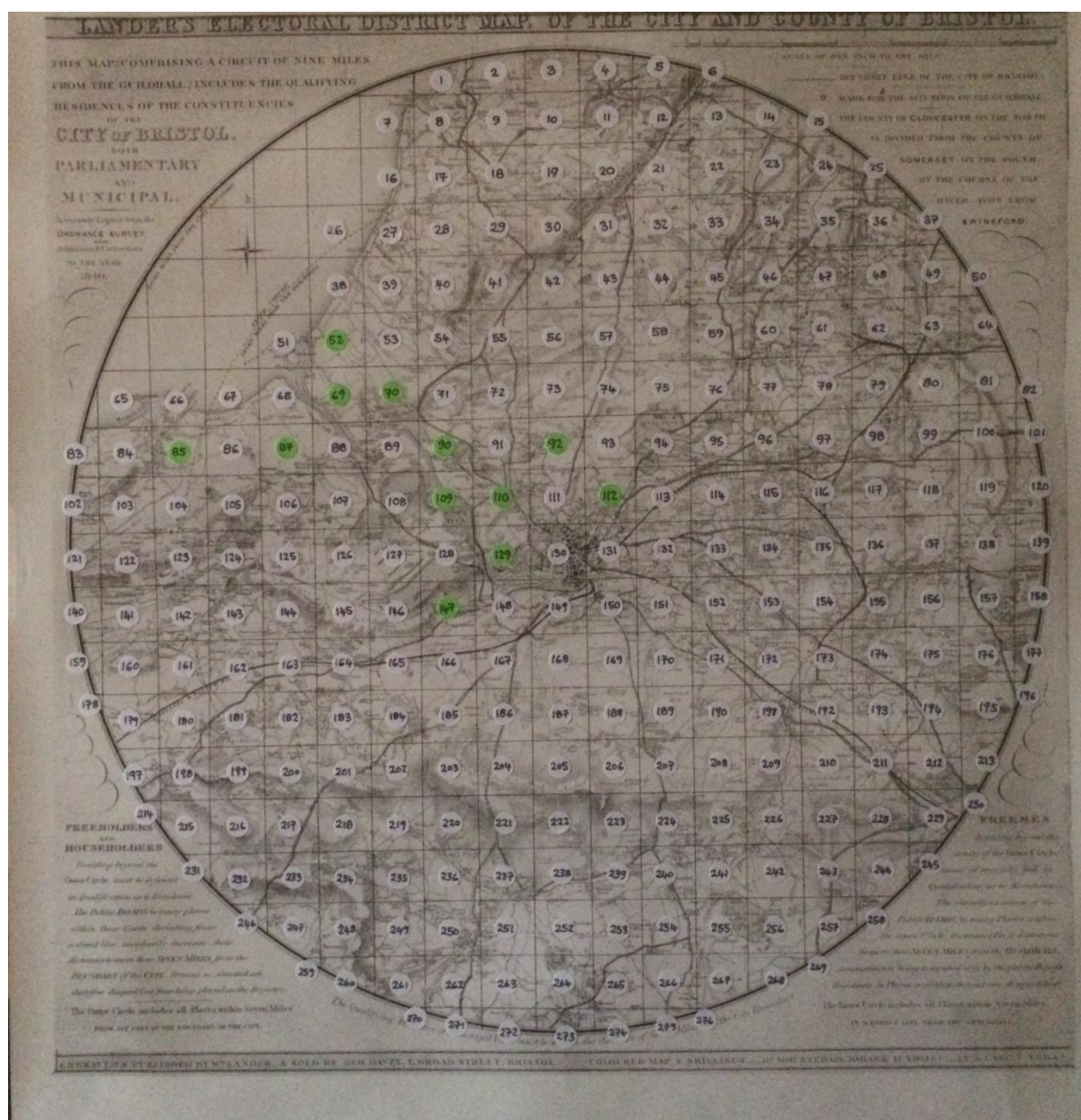
Your obedient Servant,

ADOLPH LEIPNER,

Honorary Secretary.

22, Upper Park Street, Bristol.
June 3rd, 1864.

4. Reconstruction of circular grid map (based on Lander's Electoral map) used by Bristol Naturalists' Society members, showing numbered square miles to be used for recording purposes.



Numbered dots show the square mile identification numbers (1 to 276)

Green dots show the numbered square miles where Bristol Naturalists collected plants in 1868 (see Localities label)

7. Additional information

The material presented here, save for the two 1864 memoranda by Leipner which I had not seen at the time, are very fully written up in the Bulletin of the Bristol Naturalists' Society nos 489-491, for April, May and June 2010 respectively, under the general title *Bristol Botany in 1868*.

Part 1 Reverend William Webb Spicer (1820-1879) and the recording of the flora of Bristol by square miles: "A small collection of little importance"?

Part 2 Reverend William Webb Spicer (1820-1879) and the recording of the flora of Bristol by square miles: "When I survey..."

Part 3 Reverend William Webb Spicer and his Four-year Antipodean Odyssey

8. Sources and acknowledgements

The photographic copy of the circular nine-mile map by Landers was kindly prepared for me (c 2000) by Bristol Museum and Art Gallery from their copy displayed on the Mezzanine floor of the Museum.

The Spicer herbarium sheets with the Localities labels were donated by the Bristol Naturalists Society to the Bristol Museum c 1955 and their significance was noted by me c 1979. Further sheets were found by me in 2006.

Dr Mike Crane, a geologist at Bristol Museum and Art Gallery, in a lecture on the early history of the Bristol Naturalists' Society c 1980 stated that the Society had in the 1860s intended to produce an account of the animals and plants found within 9 miles of the centre of Bristol, but so far as he was aware, no work was done. During Q&A after the lecture I was able to indicate that the herbarium sheets and their twin labels showed that this was not the case.

The reconstructed grid map with numbered squares, which so clearly shows where the Bristol botanists had collected in 1868 and how the reconstruction was made from the matched list of localities and square mile numbers on Spicer's Herbarium sheets was prepared in November 2016 by Liz McDonnell from a tracing paper draft prepared by me some years previously.

The photo of A Leipner is from his obituary in the Proceedings of the Bristol Naturalists Society. The photo of WW Spicer is from the Tasmanian Mail Centenary 21 February 1904, page 19 and is copied from Rozefelds, A.C. (2005). A Four-year Antipodean Odyssey: The Reverend William Webb Spicer M.A. in Tasmania, 1874-1878, Kanunnah 1 33-46. Spicer wrote the first local flora in Australia.