On: 15 March 2015, At: 02:34
Publisher: Taylor & Francis
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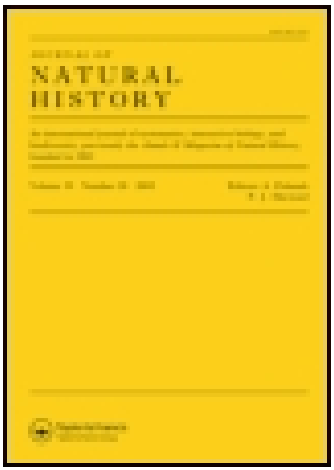

Annals and Magazine of Natural History: Series 4

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/tnah10

On the growth of the stem of Fontinalis antipyretica

Professor H. Leitgeb

Published online: 16 Oct 2009.

To cite this article: Professor H. Leitgeb (1868) On the growth of the stem of Fontinalis antipyretica, Annals and Magazine of Natural History: Series 4, 1:5, 392-392, DOI: 10.1080/00222936808695722

To link to this article: http://dx.doi.org/10.1080/00222936808695722

Leucodore calcarea.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,—Allow me to draw your attention, and that of your readers, to the figure of *Leucodore calcarea* appended to my paper last month. I have to apologize very greatly for its erroneous and sketchy appearance. The setæ are by no means correctly indicated, whilst the great branchial cirri, which curve over the back, are omitted altogether. This is owing to illness, which prevented me from seeing to the proofs of the plate. The figure given by Dr. Johnston originally, I believe, in this Magazine, and republished in the 'B. M. Catalogue of Worms,' is a very fair representation of his *Leucodore ciliata*, which I must refer to as a correction of the erroneous one in my plate. Since my paper did not deal with the morphological peculiarities of *Leucodore*, the figure was only of secondary importance.

I am, Gentlemen, truly yours,
E. RAY LANKESTER.

On the Growth of the Stem of Fontinalis antipyretica.

By Professor H. LEITGEB.

The apical growth of this moss takes place by repeated divisions of a three-sided apical cell. The divisional walls are parallel to the lateral surfaces of the apical cell. The spiral of division is as often directed to the right as to the left. The segments cut off from the apical cell by the divisional walls are arranged, in accordance with their origin, in three longitudinal series, and at first incline towards each other at an angle of about 70°. Each segment is divided by a longitudinal wall into an outer and an inner part. The inner part of the segment, which subsequently becomes horizontal (the stem-part of the segment), displays in general the same development as the segments in the roots of many vascular Cryptogamia and in the stem of *Equisetum*. It is divided by the sextant-wall into sextants, in the larger of which an inner cell is cut off by a tangential wall. From the stem-part of the segment is formed the widely cellular, axile tissue of the stem.

The outer part of the segment (the leaf-part) partially retains its inclined position. It divides by a horizontal wall into the *acroscopic* and the *basiscopic basilar* portion. The former grows out into the free leaf-surface, a two-edged apical cell being formed in it. From the basiscopic basilar pieces the buds are developed. Hence *each bud and the leaf standing above it belong to the same segment.* One wall of the apical cell of the bud is always turned towards the apex of the parent shoot. The segmental spiral of the bud is always antidromous to the segmental spiral of the parent shoot. The tangential growth of the basiscopic basilar piece always remains much behind that of the acroscopic portion.—*Anzeiger der Akad. der Wiss. in Wien*, February 13, 1868, pp. 43–44.