THE ANTHEROZOIDS OF DICTYOPTERIS

By T. Johnson

Dublin

I should like to place on record the circumstances under which I saw for the first time that the male cells of the *Dictyota* family were not non-motile spermatia but ciliated motile antherozoids.

With the help of a grant from the Royal Society I spent two long vacations (in 1885 and 1886) investigating the marine algae of Plymouth Sound and district, thanks to the facilities provided for such work by the Marine Biological Station at Plymouth. It was usual to spend the morning collecting material by dredging or shore work, sorting it out in the afternoon, and returning for microscopic examination of selected material in the evening. Dredging off the Eddystone yielded male plants of Dictyopteris and examination of one piece showed an antheridium in course of breaking up. The contents scattered in all directions as motile bodies starting at the lower right corner, as looked at, and passing gradually to the upper left corner. I never saw anything more clearly under the microscope. I put material in absolute alcohol for further examination but unfortunately did not keep the microscopic specimen or fix the antherozoids with iodine. When I showed my chief (Dr D. H. Scott) my account of the discovery he expressed the opinion, to which I naturally deferred, that it would be incautious to publish anything so startling, based on one observation, and, in consequence, in the published account I spoke of indications that the male cells would prove to be motile. Later on my former pupil Williams (1904) proved the bi-ciliated nature of spermatozoids in the Dictyotales by using material kept in a moist chamber.

REFERENCE

WILLIAMS, J. L., 1904. Studies in the Dictyotaceae II. The cytology of the gametophyte generation. Ann. Botany, Vol. 18, pp. 183-204.