VOYAGE OF H.M.S. CHALLENGER.

ZOOLOGY.

REPORT on the Tetractinellida collected by H.M.S. Challenger during the Years 1873-76. By W. J. Sollas, M.A., D.Sc. Cambridge, LL.D. Dublin, Professor of Geology and Mineralogy in the University of Dublin; late Fellow of St. John's College, Cambridge.

PREFACE.

THE Tetractinellid Sponges brought home by the Challenger Expedition were sent to me for description by Mr. John Murray on the 15th of July 1882. Numerous unforeseen interruptions, one of the chief being a removal from Bristol to Dublin, will account for the delay which has occurred in the completion of the Report.

It was not to be expected that a complete separation of the Tetractinellid from the Monaxonid sponges should be accomplished at one operation, and I have continued to receive from time to time additional specimens from my colleagues, Messrs. Ridley and Dendy, the last reaching me so late as the close of last year (1886). In this connection the uncertainty attaching to the systematic position of the Tethyidæ has proved a source of great perplexity, and the specimens of this group have changed hands more than once. Messrs. Ridley and Dendy could find no place for them among the Monaxonida, and I was unwilling at first to disturb the symmetry of the Tetractinellida by including in it sponges which do not possess Tetractinellid spicules; when, however, this appeared to be inevitable in the case of *Placospongia*, a genus which is united to the Geodiidæ by the presence of sterrasters, but which is certainly without any Tetractinellid spicules, this objection could not be pressed, and I undertook to describe the Tethyidæ under the impression that they bore much the same relation to the Stellettidæ that *Placospongia*