

between length and breadth in a large and representative series. I very much doubt whether this would be found to be the case.

Your reviewer tends to beg these questions by treating of the "group of *Micraster præcursor*". This phrase would, of course, be a well-recognized one to denote several allied species, among which *M. præcursor* is prominent. That may be the sense in which he uses it, but probably it is not so, for in that case his criticism would not be relevant to my remarks, as I only challenged one species, not several. I suspect that the phrase is current, and was used by your reviewer, to designate just the assemblage which Dr. Rowe named *M. præcursor*; and that the vague word 'group' has been added to a term which can only legitimately denote a species owing to a sub-conscious feeling that the assemblage in question is not satisfactory as a species. If so, the use of this expression tends to confirm my views; but in any case it is in itself so ambiguous that its use without a definition of its scope, for the time being, is to be deprecated.

R. M. BRYDONE.

27 TWYFORD MANSIONS, W.  
August 16, 1913.

#### THE DIVISION OF THE UPPER CHALK.

SIR,—With respect to the scientific points raised by Mr. Brydone, they have really little to do with the division of the Upper Chalk into two stages. He only concerns himself with the line of division between his two zones of *Offaster pilula* and *Actinocamax quadratus*. The main question is this—suppose French geologists are right in believing that there are two faunas of stage-value in the comprehensive Senonian of d'Orbigny, where do we find the most convenient plane of division between them? At present they draw the line at the top of the zone of *Marsupites*; I gave reasons for drawing it at the top of a higher zone, that of *Placenticerus bidorsatum* and *Inoceramus lingua*, which though recognized has not yet been fully examined and defined in France.

This latter zone must be more or less coextensive with Mr. Brydone's zone of *Offaster pilula*, and if he can substantiate his zone and his upper limit of it throughout the South of England, it should also be applicable to the Paris Basin, and may eventually become the plane of division between a restricted Senonian and a Campanian stage, as suggested by me last year: that is the real point which requires further investigation.

Meanwhile I am quite prepared to agree with Mr. Brydone that the Yorkshire Upper Chalk is so decidedly North German in its affinities that its nomenclature should be North German rather than Anglo-Parisian. Let the discussion of the subject be limited at present to the Anglo-Parisian region, but here a caveat must be entered. It is well known that the species which go by the names of *A. granulatus* and *A. quadratus* are connected by a number of intermediate forms, and that Mr. Rowe regards the one as the lineal ancestor of the other. Mr. Brydone will have to define exactly what he means by *A. quadratus* and what he regards as the distinction

between the two species, for it may be that his *A. quadratus* is not exactly what Mr. Rowe has taken to be the typical form of that species. The latter informs me that he never found anything really approaching his idea of *A. quadratus* in Sussex. Mr. Brydone may have been more fortunate, but on the other hand it may be that his finds would be regarded by Mr. Rowe as extreme forms of *A. granulatus*.

A. J. JUKES-BROWNE.

TORQUAY.  
August 6.

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OBITUARY.

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PROFESSOR JOHN MILNE,

D.Sc., F.R.S., F.G.S., Hon. Fellow of King's College, London.

BORN DECEMBER 30, 1850.

DIED JULY 31, 1913.

It was only in August,<sup>1</sup> 1912, that we published in our list of Eminent Living Geologists a notice of the life and work of our dear friend John Milne. This August we received from Shide the sad news of his decease in his 63rd year. There is little to add to the record we published a short year ago. Seismographic stations extend over nearly the whole globe. Each station owes its inception to Professor Milne. The records which are maintained by his seismographs at Shide are automatically carried on as if he was still there; and after the meeting of the British Association in September it will be decided where and by whom the work shall be continued as a permanence. Such splendid observations cannot be allowed to lapse, for they interest not one country but every land and every nation. The work Professor Milne has given to the world cannot be permitted to die.

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MISCELLANEOUS.

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MR. F. P. KENDALL, jun., assistant curator of the Zoological Museum of the University of Sheffield, and son of Professor Kendall, of Leeds University, has been appointed lecturer in zoology and geology in the South-Eastern Agricultural College at Wye.

MR. W. G. FEARNSIDES, M.A., F.G.S., Fellow and lecturer in Natural Sciences at Sidney Sussex College, and demonstrator in petrology in the University of Cambridge, has been appointed to the Sorby Chair of Geology at Sheffield.

TRUSTEES OF THE BRITISH MUSEUM.—Sir Archibald Geikie, K.C.B., Pres. R.S. (late an ex-officio Trustee of the British Museum), was elected on June 2 a member of the Standing Committee of that body in place of the late Lord Avebury.

PROFESSOR J. W. JUDD, C.B., LL.D., F.R.S., has been elected by the Council Emeritus Professor of Geology in the Imperial College of Science and Technology.

<sup>1</sup> See GEOL. MAG., August, 1912, pp. 337-46.