

sciences. The 'zone of *Marsupites*,' to which Mr. Jukes-Browne appeals, is one of the finest possible examples of what I mean. The 'zone of *Marsupites*,' introduced by Barrois, was an international zone. It was adopted from a country in which not much was known about it, and it had not even received a separate name; its upper boundary for England was wholly undefined, its lower boundary was only defined in the Margate area by a physical character which Barrois only thought he recognised again in the Sussex area, and there wrongly according to Dr. Rowe, and the type fossil only occurs in about 40 feet out of some 300 feet attributed to this zone by Barrois. I do, though I gather Mr. Jukes-Browne will disapprove, most strongly urge the limitation of the 'zone of *Marsupites*,' for the south of England at any rate, to the important bed of very uniform thickness and position in the series which contains *Marsupites* "in every foot," and outside which *Marsupites* is practically non-existent. Can there be any doubt as to which of these two zones is the more logical and practically useful?

Now it so happens that the international zones introduced by Barrois up to and including the zone of *M. cor-testudinarium* are sound provincial zones for the south of England, answering (except in the case of the zone of *B. plena*) very well to what Mr. Jukes-Browne considers such an unreasonable test, i.e. the occurrence of the type fossil in every foot of the zone. But that does not make it any the less desirable if we are establishing a new zone to establish the most accurately defined one that we can. Does Mr. Jukes-Browne's zone of *O. lunata* satisfy the reasonable requirements of scientific accuracy? How would he define its upper and lower boundaries? Clearly not by the appearance and disappearance of *O. lunata*, for there are at least 10 feet of chalk exposed at Trimmingham below the lowest occurrence of this species and anything from 25 feet upwards above the highest occurrence, and I cannot see any other possible criterion. The zone of '*Terebratulina*' which I propose begins where *Terebratulina gracilis* appears (and I am in hopes of satisfying myself that this is just above the hard yellowish bed, in which case the zone of *B. mucronata* would have at Trimmingham an upper boundary defined both physically and palæontologically), and will end where *T. gracilis* disappears, unless before that point is reached some other fossil worthy of being made a zone fossil comes in. The only objection I can see to my zone of *Terebratulina* will be removed when the characteristic fossil of the zone below that of *H. planus* is properly named, and I hope we shall not have to wait much longer for this.

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[ERRATUM.—In Mr. R. M. Brydone's article in February number, GEOL. MAG., 1906, p. 77, line 33 from top of page, for 'blending' read 'banding.'—EDIT. GEOL. MAG.]