http://www.geology.19thcenturyscience.org/books/1859-Lyell-Elements/README.h

trod the surface of this planet. So fixed was this idea in the minds of the majority of naturalists, that, when at length the Stonesfield Mammalia awoke from a slumber of three or four great periods, the apparition failed to make them renounce their creed.

"Unwilling I my lips unclose—
Leave, oh, leave me to repose."

First, the antiquity of the rock was called in question; and then the mammalian character of the relics. Even long after all controversy was set at rest on these points, the real import of the new revelation, as bearing on the doctrine of progressive development, was far from being duly appreciated.

It is clear that the first two or three species, encountered in any country or in the rocks of any epoch, cannot be taken as a type or standard for measuring the grade of organization of any terrestrial fauna, ancient or modern. Suppose that the two or three oolitic species first brought to light had really been all marsupial, as was for a time erroneously imagined, this would not have borne out the inference which some attempted to deduce from it, namely, that the time had not yet come for the creation of the placental tribes. Or, if when some monodelph were at last actually recognized (at Stonesfield), they happened to be of diminutive size, and to belong to the insectivora, we are not entitled to deduce from such data that the oolitic fauna ranked low in the general scale, as the insectivora may do in an existing fauna. The real significance of the discoveries alluded to arises from the aid they afford us in estimating the true value of negative evidence, when brought to bear on certain speculative questions. Every zoologist will admit that between the first creation and the final extinction of any one of the five* oolitic mammalia now known there were *many successive generations*; and, if the *geographical range* of each species was limited (which we have no right to assume), still there must have been several hundred individuals in each generation, and probably, when the species reached its maximum, several thousands. When, therefore, we encounter for the first time in 1854 two or three jaws of a *Spalacotherium* in the Purbeck limestone, after countless specimens of Mollusca and Crustacea, and hundreds of insects, fish, and reptiles had been previously collected from the same beds, we are not simply taught that these individual quadrupeds flourished at the era in question, but that thousands, perhaps hundreds of thousands, of the same species peopled the land without leaving behind them any trace of their existence, whether in the shape of fossil bones or footprints; or, if they left any traces, these have eluded a long and most persevering search.

Moreover, we must never forget how many of the dates given in the

* I had written *four*, but while this sheet was passing through the press (Sept. 26, 1854) the discovery of another species of insectivorous mammal from Stonesfield was announced to the British Association at Liverpool by Mr. Charlesworth, who has given to it the name of *Stereognathus ooliticus*. It is more than twice the size of any of the species previously obtained from the same formation. We have now, therefore, including the recently found Spalacotherium of Purbeck (see p. 295), five British mammalia from the oolite.