

first attempts of nature. There is nothing transitional about them. They bring with them no reminiscences of reptiles, birds, or fishes. If they had descended from humbler forms, it must have been by many generations; and many connecting links must be totally lost. If these facts were an isolated group, we might think these little mammals abruptly ushered into being; but the question receives light from so many directions, that we must at least hesitate to accept that view.

Whatever the origin of these little fore-runners of a noble type, it can not be supposed they had no companions. There must have been hundreds, if not thousands, of individuals of each of these species, but they are wholly lost to knowledge. Where we are sure of the disappearance of so many remains, how easy to believe the remains of different creatures—of lower mammals—have also disappeared.

Mammals once in existence, we are compelled to believe that they continued uninterruptedly in existence until our own times. We can not admit that the type was lost to the world, and then the same identical conception reintroduced. But where did mammals live; where did they perish; where lie their bones? Save one or two thin bone beds, we search in vain the depth and breadth of Jurassic and Cretaceous strata for evidences of the existence of mammals. In a bone-bed of the Stonesfield Slate of the English Jurassic, the teeth and jaws of several species of mammals have been found. These are mostly near relatives of the Triassic mammals. In the Middle Purbeck of the Upper Jurassic, occur other remains. We know in Europe, all together, not much over fourteen species, and they are probably all marsupial; and a majority are insectivores. In the Jurassic of America, Professor Marsh has brought to light at least 17 species; and these all closely resemble the Old World remains. In all the vast thickness of the Cretaceous strata, but a single species is known, and of this so far as I am informed, but a single individual, and this very imperfectly preserved. It comes from Dakota, and was described in 1884 by Professor Cope, who bestowed on it the