

again without retaining on its surface any monuments of the kind usually demanded as indispensable to warrant us in speculating on marine denudation as a great modifying cause in the physical geography of the globe.

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NEW FOSSIL MAMMALIA FROM THE PURBECK OR UPPER OOLITIC STRATA IN DORSETSHIRE.

Discovery in Dorsetshire of seven or eight new genera of Mammalia in the Purbeck or Upper Oolite strata—First example of a skull of a Mammifer from Secondary Rocks—Insectivorous Marsupials and Placentals and herbivorous Marsupials—Figures and descriptions—Light thrown on the *Microlestes* or oldest triassic Mammifer—General bearing of the new facts.

It will be seen by the text (p. 457) that when the 5th edition of this work was published two years ago, six species only of mammalia were known in the whole world from rocks older than the Tertiary. The researches of 36 years had been required to bring these six species to light, from 1818, when first a lower jaw from the Stonesfield Oolite, found 10 years before, was pronounced by Cuvier to be mammalian, to the year 1854, when the *Spalacotherium* of Purbeck was described by Owen.

Figures are given at p. 341 of two small molar teeth of the most ancient of these six quadrupeds, the *Microlestes* of Plieninger, found in a bone-bed near Stuttgart usually referred to the Upper Trias, and in which Triassic species of fish and reptiles abound. Figures are also given of the fossil lower jaws with teeth of three diminutive mammalia obtained from the inferior oolite of Stonesfield (pp. 311–12 of the text, and 368, 4th ed.), and supposed to belong to insectivorous creatures, one of them at least to a marsupial quadruped. The remains of a fourth British mammal, also consisting of a lower jaw from the same locality, found by the Rev. J. B. P. Dennis, and made known in September, 1854, is alluded to in a note at p. 457. Although small, it was considerably larger than the three species previously discovered, being probably about the size of a rabbit. Professor Owen imagines it to have been of omnivorous habits, and one of the ungulate or hoofed quadrupeds, allied to certain extinct genera of the tertiary period, called *Hyracotherium*, *Microtherium* and *Hyopotamus*.

The discovery in Purbeck, Dorsetshire, in 1854, of the *Spalacotherium*, a small insectivore allied to the Cape mole, is mentioned at p. 295 and 457, as the first example of a mammifer from those freshwater strata. In December last (1856) Mr. Samuel H. Beckles, F. G. S., conversed with me in London on the desirability of quarrying the Middle Purbeck in Durlstone Bay, near Swanage, for the express purpose of exploring the fossil contents of the bed in which Mr. W. R. Brodie had procured