

Pliocene deposits often contain the remains of mammalia, reptiles, and fish, exclusively of extinct species. But the reader must bear in mind that the terms Eocene, Miocene, and Pliocene were originally invented with reference purely to conchological data, and in that sense have always been and are still used by me.

Since the first introduction of the terms above defined, the number of new living species of shells obtained from different parts of the globe has been exceedingly great, supplying fresh data for comparison, and enabling the paleontologist to correct many erroneous identifications of fossil and recent forms. New species also have been collected in abundance from tertiary formations of every age, while newly discovered groups of strata have filled up gaps in the previously known series. Hence modifications and reforms have been called for in the classification first proposed. The Eocene, Miocene, and Pliocene periods have been made to comprehend certain sets of strata of which the fossils do not always conform strictly in the proportion of recent to extinct species with the definitions first given by me, or which are implied in the etymology of those terms. These innovations have been treated of in my 'Elements or Manual of Elementary Geology,' and in the Supplement to the fifth edition of the same, published in 1859, where some modifications of my classification, as first proposed, are introduced; but I need not dwell on these on the present occasion, as the only formations with which we shall be concerned in the present volume are those of the most modern date, or the Post-tertiary. It will be convenient to divide these into two groups, the Recent and the Post-pliocene. In the Recent we may comprehend those deposits in which not only all the shells but all the fossil mammalia are of living species; in the Post-pliocene those strata in which, the shells being recent, a portion, and often a considerable one, of the accompanying