

tivity. Hence successive fluviatile terraces were formed and eroded in the valleys, and were in many cases buried under great streams of lava. It is in these buried river-beds that the "deep-leads" lie, from which such large quantities of gold are obtained. They have preserved with wonderful perfection remains of the flora and fauna of the period. Among the plants are large trunks, branches, and fruits of trees, and ferns. With these are associated fresh-water shells, traces of beetles, and bones of a number of extinct marsupials, some of which were distinguished by their great size. One of the most abundant and remarkable of these creatures was the *Diprotodon*, which attained the bulk of a rhinoceros or hippopotamus. Another is the *Nototherium*, probably somewhat like a large tapir, of which three species have been named. An extinct gigantic kangaroo (*Macropus Titan*) had a skull twice as long as that of the largest living species. There were also wombats (*Phascolomys*), and a marsupial lion (*Thylacoleo*), with the marsupial hyæna (*Thylacinus*), and *Sarcophilus* or "devil," which still live in Tasmania. To these may be added the *Dromornis*—a large bird represented now by the emu.¹⁹⁰

In Victoria a younger Tertiary series overlies the older volcanic rocks referred to on p. 1639, and is likewise associated with newer volcanic ejections. It includes both marine and fluviatile deposits. The marine group, with species of *Trigonia*, *Haliotis*, *Cerithium*, *Waldheimia*, etc., is found up to heights of 1000 feet above sea-level. The fluviatile deposits, besides auriferous gravels, include also beds of lignite with abundant remains of terrestrial vegetation, and have yielded remains of *Diprotodon*, *Phascolomys*, *Thylacoleo*, *Macropus*, *Procoptodon*, *Dasyurus*, *Hypsiprimnus*, *Canis dingo*, etc. Vast sheets of basaltic and doleritic lavas have overspread the plains and filled up the Pliocene river-beds.¹⁹¹

In Queensland the presence of Tertiary rocks is inferred rather than proved. But from the similarity of the volcanic rocks of that colony to those of Victoria and New South Wales, it is believed that the older and newer volcanic groups which have been established are likewise of Tertiary age.¹⁹²

¹⁹⁰ C. S. Wilkinson, "Notes on Geology of New South Wales," Sydney, 1882.

¹⁹¹ R. A. F. Murray, "Geology of Victoria," p. 113.

¹⁹² These volcanic accumulations are extensive and of great interest. They have been described by Mr. R. L. Jack in the "Geology and Palæontology of Queensland," chap. xxxv.