

Africa. An Ox of the period, the Aurochs, still lives under the protection of the Russian Czar; and another, *Bison priscus*, the Urus, was alive in the time of the Romans.

Kent's Hole, near Torquay, has afforded bones of the *Mammoth*, *Rhinoceros* (*R. tichorhinus*), Cave Bear, Cave Lion, Cave Hyena, Wolf, Fox, Irish Deer, Reindeer, *Machærodus latidens*, Horse, besides relics of Man in the form of flint implements; and the Brixham Cave, in the same vicinity, in addition to flint implements, bones of the Cave Bear, Brown Bear, Grizzly Bear (*U. ferox*), Elephant, Cave Hyena, Cave Lion, Wolf, Fox, modern Horse, Reindeer, Goat, Irish Deer, Elk, modern Hare and Rabbit, Wild Boar, *Lagomys spelæus*, *Aurochs* (*Bos primigenius*), etc.

In France, in the older caves, according to Lartet, the bones of the Mammoth predominate along with *R. tichorhinus*, the *Cave Hyena* and *Lion*, etc., and in the later (the Reindeer epoch), those of the *Reindeer*. Remains of the Reindeer have been found on the southern slopes of the Pyrenees. *Elephas antiquus* and *Rhinoceros hemitæchus* with the Hyena, Horse, Elk, Wild Boar, *Bos primigenius*, occur as far south as Gibraltar in the "Ossiferous fissures" of the Gibraltar Rock; but *E. primigenius* and *R. tichorhinus* are unknown in Spain.

On Sicily have been found, besides the Gibraltar species, remains of *Hippopotamus Pentlandi*, *H. major*, and *Elephas Africanus*; and on Malta, besides several of the species of Sicily, a pigmy Elephant, 3' to 5' high, *E. Melitensis* Falc.; with also the Bear, *Ursus arctos*, a species of Wolf, a Stag, and other kinds. These species of Sicily and Malta are the evidence of a dry land connection with Africa, and probably across to Europe.

AUSTRALIAN.

In Australia, the living species are almost exclusively Marsupials; and they were Marsupials also in the Quaternary, but of different species. As on the other continents, the moderns are dwarfs by the side of the ancient species. The Quaternary *Diprotodon* (Fig. 1566) was as large as a Hippopotamus, and somewhat similar in habits, the skull alone being a yard long; and *Nototherium Mitchelli* Owen, an herbivorous species, was as large as a bullock; one of the Kangaroos, a species of *Macropus*, had the size of a Rhinoceros.

From this review of Quaternary Mammals, it is apparent that the characteristic species of each continent were mainly of the same type that now characterizes it. Both in the Quaternary and at the present time, the Orient is strikingly the continent of Carnivores; North America, of Herbivores; South America, of Edentates; Australia, of Marsupials.

The facts sustain, moreover, the view that the period in which these Mammals lived and thrived was one of warm climate. The species which have been mentioned, with a very few exceptions noted below, must have required a climate ranging between warm temperate on one side, and extreme cold temperate on the other; and this range belonged to the wide region from middle Europe and Britain to northern Siberia, where herds of Elephants, hairy Rhinoceroses, and other Mammals found abundant vegetation for food, and a good living place. If northern Siberia had then the mean temperature now found in southern Scandinavia, or 40° F., instead of its present 5° F. to 10° F., central Europe would necessarily have been within the warm temperate