

were unknown in the old. New Holland contains, as is well known, a most singular assemblage of mammalia, consisting of more than forty species of marsupial animals, of which the kangaroo is a familiar example. The islands of the Pacific Ocean possess no quadrupeds, except hogs, dogs, rats, and a few bats.

The distribution of vegetable life, although perhaps more arbitrarily fixed by temperature and by local influences than that of animals, presents many anomalies. From numerous observations, however, it appears that vegetable creation took place in different centres, each having been the focus of a peculiar genus or species; for many plants have a local existence, and vegetate naturally in one district alone; thus the cedar of Lebanon is indigenous on that mountain, and does not grow spontaneously in any other part of the world. It is also ascertained that certain great divisions of the vegetable kingdom are distributed over certain regions: we shall have occasion to refer to this subject in the lecture devoted to the consideration of Fossil Botany.

9. TEMPERATURE OF THE EARTH.—The temperature of the surface of the globe depends on the action of solar light and heat; hence the difference of the seasons, and climates of various latitudes; but there are many causes which modify the distribution of the sun's influence, and produce great local variations: under equal circumstances, however, the temperature is found progressively to