

any certainty that they have been joined to one another or have formed part of any larger insular tract. In these islands there is only one indigenous mammal, a bat, which is identical with a European species, and no doubt reached the islands by flight. There is no indigenous reptile, amphibian, or fresh-water fish. Of birds there are, exclusive of water-fowl, which may be regarded as visitors, twenty-two land birds; but of these four are regarded as merely accidental stragglers, so that only eighteen are permanent residents. Of these birds fifteen are common European or African species, which must have flown to the islands or have been drifted thither in storms. Of the remaining three, two are found also in Madeira and the Canaries, and therefore may reasonably be supposed to have been derived from Africa. One only is regarded as peculiar to the Azores, and this is a bullfinch, so nearly related to the European bullfinch that it may be regarded as merely a local variety. Wallace accounts for these facts by supposing that the Azores were depopulated by the cold of the glacial age, and that all these birds have arrived since that time. There is, however, little probability in such a supposition. He further supposes that fresh supplies of stray birds from the mainland, arriving from time to time, have kept up the identity of the species. Instead of evolution assisting him, he has thus somewhat to strain the facts to agree with that hypothesis. Similar explanations are given for the still more remarkable fact that the land plants of the Azores are almost wholly identical with European and African forms. The insects and the land snails are, however, held to indicate the evolution of a certain number of new specific forms on the islands. The beetles number no less than 212 species, tho nearly half of them are supposed to have been introduced by man. Of the whole number 175 are European, 19 are found in Madeira and the Canaries, 3 are American. Fourteen remain to be accounted for, tho most of these are closely allied to European and other species; but a few are quite distinct from anywhere known. Wallace, however, very truly remarks that our knowledge of the continental beetles is not complete, that the species in question are small and obscure, that they may be survivors of the glacial period, and may thus represent species now extinct on the mainland; and that for these reasons it may not