

PHYSICAL FEATURES ETC. OF THE AREA TREATED.

THE area treated in the 'Biologia' includes the whole of Mexico south of the Rio Grande as far as El Paso, thence to the Gila River, and following it as far as the Gulf of California (but excluding Baja or Lower California). The distant Revillagigedo Islands have been added, owing to certain species of sea birds being common to these islands and the Tres Marias on the western coast of Mexico. Further south we include British Honduras, Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, and Panama, which collectively are spoken of as Central America. The country stretches in a south-easterly direction, having a width in the north of about 1140 statute miles and gradually decreasing till at the Isthmus of Panama it does not exceed 45 miles, and the land only attains an altitude of 300 feet (*tierra caliente*). In shape Mexico and Central America have been likened to a cornucopia, which collectively they somewhat resemble. Of the physical aspect of each country I propose giving an outline, but as the travels of Salvin and myself covered only a small portion of the area, I shall supplement the account with extracts from other writers; moreover, upwards of fifty years have elapsed since I was in Guatemala, and doubtless great changes have taken place in the interval throughout the whole of Mexico and Central America, partly owing to the extensive destruction of forest for the purpose of cultivation, the construction of railways, and the wanton devastation of large tracts by fire. Thus various places which in our time were good collecting grounds are no longer so, and many species of both animals and plants must either have migrated or become extinct. Earthquakes, too, have done much to alter the configuration of the land, as well as the nature of the vegetation.

The country is divided by the natives into three zones—the '*tierra caliente*,' '*tierra templada*,' and '*tierra fria*' (or hot, temperate, and cold climates respectively). The *tierra templada* corresponds on an average with an elevation of 3000 to 5000 feet, but the natives of the Mexican State of Vera Cruz draw this imaginary line at a level very different from that used by the people on the western slope of Mexico. For instance, Chilpancingo at 4000 feet in Guerrero has no tropical vegetation and the climate is much cooler than in the State of Orizaba at an almost similar altitude on the eastern slope, which is in every sense subtropical.

The difference is due to the greater rainfall on the Atlantic coast, for the prevailing wind in passing over the ocean is charged with humid air, and when driven by the mountain ranges into a higher and colder elevation, the moisture is then precipitated as rain, thus inducing a much more vigorous vegetation than is found on the Pacific slope.