

Tropical,—the first two coming down from the north, the last coming up from the south, and all meeting in the Republic of Costa Rica. He says, and truly, that the geographical position and meteorological peculiarities of the country make this enormous bird fauna within its confines explicable, but at the same time they greatly increase the difficulty of a satisfactory disposition of many of the species with respect to life zones. The continent decreases from 3000 miles in breadth to scarcely more than 60 at the narrowest part of Costa Rica, and within those 60 miles are crowded a diversity of climatic conditions, altitudes, etc., scarcely paralleled in the world. The northern and southern forms of the Pacific and Atlantic lowlands meet here and overlap, a single remnant of the Canadian bird-fauna persists on some of the isolated peaks of the high mountains (*Junco vulcani*), while modified forms of this northern species are found on the high lands of Mexico and Guatemala. A very large number of North American migrants arrive during the winter months and distribute themselves widely as to altitude throughout the country. Mr. Carriker also observes that amongst certain species there is a seasonal migration from a higher to a lower altitude, doubtless for the sake of food, and Salvin and I noticed similar migrations of several species of birds in Guatemala; this was especially the case with humming-birds, which were very abundant at Dueñas during the flowering season, but in the dry season, when the flowers failed, this district was entirely deserted and the birds migrated to the Pacific Coast, where the atmosphere was damper and the blossoms on which they fed were abundant.

The cultivation of bananas, however, is having a marked effect on the birds, which are decreasing at an alarming rate, for in the few years since the establishment of the Fruit Company at Port Limon the forest has been completely cleared—not only there, but also southward towards the Talamanca district. Very few of the forest birds frequent the banana plantations, and with the destruction of the forest they recede or disappear altogether.

Mr. Ridgway ('Condor,' vii. 1905) gives an interesting account of Poas, which is the only active volcano in Costa Rica. After spending the night at San Pedro, he resumed his journey by bright moonlight at 4 o'clock the next morning. The 'lecheria' or dairy farm at the upper edge of the cleared zone was reached soon after daybreak, and the primitive forest which covers the last thousand feet of the mountain was then entered. No pine trees were found here, as would have been the case at the same altitude in Mexico or Guatemala, as south of Nicaragua they cease to exist. The density of the forest was, however, such that it was impossible to leave the track without cutting a way with 'machetes,' and as the undergrowth consisted mostly of slender climbing bamboos, with exceedingly hard stems, which almost filled the spaces between the trees, the difficulty of making much headway may be imagined. The variety of trees was very great, and all were laden with orchids, bromeliads, and mistletoes, the latter often conspicuously and brilliantly flowered and the bromeliads