

the pain of which differs according to the nature of the poison that each species deposits in the wound.

At a period when the geography of animals and of plants had not yet been studied, the analogous species of different climates were often confounded. It was believed that the pines and ranunculuses, the stags, the rats, and the tipulary insects of the north of Europe, were to be found in Japan, on the ridge of the Andes, and at the Straits of Magellan. Justly celebrated naturalists have thought that the zancudo of the torrid zone was the gnat of our marshes, become more vigorous, more voracious, and more noxious, under the influence of a burning climate. This is a very erroneous opinion. I carefully examined and described upon the spot those zancudos, the stings of which are most tormenting. In the rivers Magdalena and Guayaquil alone there are five distinct species.

The *culices* of South America have generally the wings, corslet, and legs of an azure colour, ringed and variegated with a mixture of spots of metallic lustre. Here as in Europe, the males, which are distinguished by their feathered antennæ, are extremely rare; you are seldom stung except by females. The preponderance of this sex explains the immense increase of the species, each female laying several hundred eggs. In going up one of the great rivers of America, it is observed, that the appearance of a new species of *Culex* denotes the proximity of a new stream flowing in. I shall mention an instance of this curious phenomenon. The *Culex lineatus*, which belongs to the Caño Tamalamec, is only perceived in the valley of the Rio Grande de la Magdalena, at a league north of the junction of the two rivers; it goes up, but scarcely ever descends the Rio Grande. It is thus, that, on a principal vein, the appearance of a new substance in the gangue indicates to the miner the neighbourhood of a secondary vein that joins the first.

On recapitulating the observations here recorded, we see, that within the tropics, the mosquitos and zancudos do not rise on the slope of the Cordilleras* toward the temperate

* The *Culex pipiens* of Europe does not, like the *Culex* of the torrid zone, shun mountainous places. Giesecke suffered from these insects in Greenland, at Disco, in latitude 70°. They are found in Lapland in summer, at three or four hundred toises high, and at a temperature of 11° or 12°.