

directions; no volcanic matter was ejected from its crater; but in the ground enormous crevasses opened, which poured out torrents of water, and of a pestiferous mud or slime, called by the natives *Moya*. These floods devastated all the surrounding country, and in some of the neighbouring valleys, though they measured 1000 feet in breadth, accumulated to a height of 600 feet. The mud was heaped up in such vast masses as to obstruct the channels of rivers, and dam their waters into extensive basins, or lakes, which did not subside for nearly three months. It is a curious circumstance that in the volcanic floods thus poured forth from the very womb of earth were found quantities of dead fishes of a novel species, which must have been bred in subterranean reservoirs, at a distance, however, from the volcanic focus. In allusion to their peculiar habitat, they have been named the *Pycnelodes Cyclopus*.

According to Humboldt, the concussion on this occasion was vertical—*i.e.*, from the centre upwards—and so violent that some of the inhabitants were flung across a river several hundred feet broad, and fell on a neighbouring mountain. Consequently, the ground was rent, and twisted, and shattered in a most extraordinary manner, and in the chasms that everywhere opened, horsemen, and pedestrians, and strings of loaded mules were suddenly engulfed. Whole houses sank bodily into the earth, but in many cases were so little injured that their inhabitants remained in them unhurt, and by the light of torches passed from room to room, engaged in their usual domestic avocations, until extricated, after a suspense of two days, by persons despatched to their assistance.

Such was not the case, however, with the majority of the population of Riobamba. The loss of life was terrible—not only in the city, but throughout the region affected by the earthquake—and it is supposed that, in all, 40,000 persons perished.

Riobamba was reduced to a pile of ruins eight or ten feet in height; at Tacunga nothing remained standing but an arch in the great square, and portions of a neighbouring house. The churches were at the time thronged with worshippers; not one of them escaped. The village of San Felipe was swallowed up bodily. At Quito, though situated so far from the pivot of the wave, many of the churches and public buildings were overthrown. The Lake of Quilotou, in the district of Llactagunga, exhaled immense clouds of pestilential vapours, which suffocated the cattle feeding on its shores.

The first great shock, on the morning of the 4th of February, was followed, on the same day, by two of modified severity, at ten A.M. and four P.M., which, unlike their formidable precursor, were accompanied with subterranean noises. Mitigated shocks were repeated during the remainder of February and the month of March. The last, which proved very severe, was felt at half-past two A.M., on the 5th of April.

We proceed to subjoin a list of some of the principal convulsions which have marked the present century, before recording a few details of the great earthquake of Ecuador in 1868 :—

*July 26, 1805.*—At Frosolone, in Naples, 6000 lives were lost.

*August 11, 1810.*—A village on one of the Azores Islands disappeared, and its site was occupied by a lake of boiling water.