

obtained by Moore in 1899 off the high western shore, in latitude  $11^{\circ} 40'$  South. A more complete series of soundings, however, since made by Lieutenant Rhoades,<sup>1</sup> gives 386 fathoms (2316 feet) off the same coast, in latitude  $11^{\circ} 10'$  South. The lake is bordered by three old beach terraces, of which the most marked lies 14 feet above the present water-level. Moore<sup>2</sup> considers that in all probability the wearing away of the floor of the Murchison Falls, over which the Shiré River carries the surplus waters of the lake, led to the lowering of the water-level. He says that Nyasa may at one time have been connected with Lake Shirwa, and both lakes have drained down the valley of the Lujenda River to the Indian Ocean.

In 1895 and 1899 observations were made on the fauna of Lake Nyasa by the Tanganyika expeditions, and it was discovered that beyond 100 to 150 feet the lake was practically a fresh-water desert, there being encountered in its deeper water nothing but organic refuse mixed with fine grey mud.

**Lake Malombe**, through which the Upper Shiré flows after leaving Lake Nyasa, had an area of 100 square miles in 1893, but in 1894 and the succeeding years a large sand island was thrown up in the centre and became covered with reeds, so that in 1896 the lake was little more than a broad channel of the Shiré River divided by the island from a narrower channel to the west. Sir H. Johnston<sup>3</sup> attributes much of the recent decrease in the volume of the African lakes to a slow and gradual upheaval of the land, and he thinks that the sudden change of this lake into a sandy marsh and broad river-channel supports his view.

Lakes of the  
so-called  
Great Rift  
Valley and  
other Inland  
Drainage  
Areas of  
East Africa.

**Lake Natron**, 1996 feet above sea-level, in lat.  $2^{\circ} 5'$  S., long.  $36^{\circ}$  E., is fed by streams from the west side of the rift and by numerous small streams impregnated with carbonate of soda. In 1903 Captain C. E. Smith<sup>4</sup> found it to be only 10 square miles in extent, but after the January and February rains it had spread over about 200 square miles of flats.

**Lake Magadi**, 2050 feet above sea-level, in lat.  $1^{\circ} 8'$  S., long.  $36^{\circ}$  E., receives one small stream of fresh water and two hot streams saturated with sodium carbonate. The lake is some 100 square miles in extent, and never more than a few inches deep. It forms a natural evaporating pan, and the soda dug from it is remarkably pure and abundant. Thousands of flamingoes and wading birds

<sup>1</sup> See *Geogr. Journ.*, vol. xx. p. 68, 1902.

<sup>2</sup> *The Tanganyika Problem*, p. 122.

<sup>3</sup> See *British Central Africa*, London, 1897.

<sup>4</sup> See "From the Victoria Nyanza to Kilimanjaro," *Geogr. Journ.*, vol. xxix. p. 258, 1907.