Lake" in the south by a strait, is shallow, though the strait itself is fairly deep. A considerable portion of the floor of Lake Titicaca lies at a lower level than that of Lake Poopo, the very shallow lake into which its waters overflow. The water of Lake Titicaca is comparatively fresh, containing only 0·11 per cent. of solid matter in solution.

Observations of much interest were obtained regarding the temperature of the water in early winter, though the stay was not long enough to throw light on seasonal variations. The surface temperature was found to rise as a rule until 3 p.m., and then to fall again; but the greatest variation observed in a single day was 2°·8 Fahr., and this at a part of the lake where the depth varied greatly. The lowest surface temperatures observed naturally occurred in the shallow bays.[1] The figures relating to the bottom temperature are striking from their great regularity, in spite of great differences of depth. The extreme range was only 3°·6 Fahr. (from 48°·9 at 10 feet to 52°·5 at 60 feet). Below 240 metres (787 feet) the temperature was constant at 50°·8 Fahr. (10°·4 C.) A series of vertical temperatures near the centre of the lake showed a difference of only 1°·7 between the surface and the bottom. A. Agassiz, in his hydrographic sketch of Lake Titicaca, says the usual difference between the surface and the bottom, even at the greatest depth (154 fathoms), was not more than from three to four degrees. The lowest temperature at the bottom (in 450 feet) was 51° Fahr. (10°·6 C.), the general temperature varying from 54° to 55°; while the surface temperature ranged from 53° to 59°—the greater part of the time 56° to 57° (February 1875), the temperature of the air at noon varying from 49° to 97° Fahr.

Observations were also made on the transparency of the water, and on the climatic conditions, the flora and fauna, etc., of the surrounding country. The level of the lake rises during the summer, the amount being given as 5 inches; but apart from seasonal variation, the level is sinking progressively.

Lake Poopo (or Aullagas) lies about 387 feet below Lake Titicaca. It is irregularly oval in shape, and contains a central island (which is inhabited), as well as two islets near the western shore. The River Desaguadero enters at the north end, and has formed a delta. The lake is 55 miles in length by 25 miles in breadth, but is very shallow, two small areas in the centre alone having a depth exceeding 6 feet (maximum depth 13 feet). The water is saline and muddy,[2] and the lake is in process of disappearing, so that at no distant date it may

[1] Ward (*Science*, vol. vii. p. 28, 1898) gives two series of temperatures taken at the surface of Lake Titicaca on 26th and 28th November 1897.

[2] The water contains 2·35 per cent. of solid matter in solution, about two-thirds of that in sea-water; of this 1·68 per cent. consists of sodium chloride, and the remainder mainly of sulphates.