

of a mile in length, and enclosing the maximum depth of the loch (440 feet); a short distance to the west (opposite Craiganour) is a second small basin based upon a sounding of 404 feet; and three-quarters of a mile farther west is the third basin, with a maximum depth of 421 feet. The area of the lake-floor covered by less than 50 feet of water is about 1200 acres (nearly 2 square miles), or 25 per cent. of the total area, while the area between the 50-foot and 100-foot lines is about 750 acres, or 16 per cent., showing a relatively rapid descent beyond the 50-foot line. The area between the 100- and 200-foot lines is about 877 acres, or nearly 19 per cent. of the entire area. The area between the 200- and 300-foot lines is about 950 acres, or over 20 per cent., the area between the 300- and 400-foot lines is about 875 acres, or 18½ per cent., and that over 400 feet about 65 acres, or nearly 1½ per cent., of the total area of the loch.

On commencing the survey of Loch Rannoch, the height of the surface above sea-level was determined from Ordnance Survey benchmarks as 668 feet; the level of the loch fluctuated during the progress of the survey, but the soundings have all been reduced to this datum. The officers of the Ordnance Survey on July 19, 1860, found the level of the loch to be 667·5 feet above the sea.

*Temperature Observations.*—Very many temperature observations were taken between March 20 and July 10, 1902. The surface temperatures need not be discussed in detail; the lowest reading recorded was 37°·9 on March 28, and the highest 59°·8 on June 23, showing a range of 22° in the temperature of the surface water during the period of three months. An interesting series of hourly observations on the temperature of the air and of the surface water at the pier at Rannoch Lodge was taken on June 9. One thermometer was immersed in 3 feet of water outside the pier, and another in 1 foot of water inside the pier, and they were read simultaneously with an air-thermometer at intervals of one hour from 9 a.m. to 10 p.m. The temperature of the air rose gradually, though irregularly, from 48° at 11 a.m. to a maximum of 53° at 4 p.m., falling gradually again to 44°·5 at 9 p.m., and 45° at 10 p.m. The thermometer in 3 feet of water showed a gradual rise in the temperature from 51°·9 at 9 a.m. to 53° at 11 a.m., then a slight fall at noon (52°·7) and at 1 p.m. (52°·5), the maximum (53°·6) being recorded at 2 p.m., falling to 52°·9 at 4 p.m., rising to 53°·3 at 5 p.m., falling gradually to 52°·1 at 8 p.m., then rising to 52°·8 at 9 p.m., and 53° at 10 p.m. The thermometer in 1 foot of water showed a gradual rise in the temperature from 51°·4 at 9 a.m. to the maximum of 53°·6 at 2 p.m., whence it fell gradually to 51°·5 at 9 p.m., the reading at 10 p.m. being 52°. The maximum temperature of the water was recorded in each case at 2 p.m., while the maximum temperature of the air was recorded at 4 p.m., and the temperature of the air was always lower than that of the water, except when the air was at its maximum.