

of soundings per square mile of surface is 128. The aggregate volume of water contained in the lochs is estimated at 280,923 millions of cubic feet, or less than 2 cubic miles. The area drained by these lochs is about 690 square miles, or twenty times the area of the lochs.

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NOTES ON THE TEMPERATURE OF THE WATER\* IN LOCH NESS.

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Regular temperature observations in Loch Ness were begun at Fort Augustus in July, 1903, at the same time as the first limnograph to be used in Scotland was erected. At first the temperature observations were subsidiary to the other observations made in the loch, but gradually their importance increased until the investigation of lake temperatures became one of the principal studies of members of the Lake Survey stationed on Loch Ness. The observations were originally made from a rowing boat by means of the Pullar and Lucas sounding machines and deep-sea reversing thermometers. An endeavour was made to take the observations at regular hours in as nearly as possible the same positions in the loch from day to day, but in stormy weather the keeping of the same position during lengthy observations was attended with considerable difficulty. In September, however, a small decked fishing boat, called the *Rhoda*, was anchored off Fort Augustus in about 300 feet of water. The anchoring of this boat caused some anxiety, but it was ultimately accomplished by means of a large mushroom anchor, which, with the necessary length of chain, was put at the disposal of Sir John Murray through the courtesy of Mr. Davidson, superintendent of the Caledonian canal.

This boat was primarily intended to accommodate the electrical thermometers which were installed, but it came to be very largely used for taking observations by means of mercury thermometers. Lengthy series of observations could be taken in comfort whatever the state of the weather, and with great economy in time. It was possible to use three or four sounding machines and thermometers at once, and consequently a series of observations could be made much more expeditiously than when only one sounding machine was used.

\* The water of Loch Ness was submitted to analysis by Dr. Tetlow, who found nothing abnormal about the water, except its softness and freedom from mineral matter, the total solids being equal to only 2.9224 parts per 100,000 (1.9012 parts of fixed solids, and 1.0212 parts of volatile solids), the principal constituents are sodium and calcium chlorides, while magnesium chloride, iron, potassium, silicon, carbonic acid, and sulphuric acid are present in traces.